```
**********************
space group: 1 {'Hall': 'P 1', 'HM': 'P 1'}
Crystal system: Triclinic
+x,+y,+z
..................
+------------------+----------+
|      Seitz       |  Jones   |
+------------------+----------+
| {1|(0.0,0.0,0.0)} | +x,+y,+z |
+------------------+----------+
..................

**********************
space group: 2 {'Hall': '-P 1', 'HM': 'P -1'}
Crystal system: Triclinic
+x,+y,+z
..................
+------------------+----------+
|      Seitz       |  Jones   |
+------------------+----------+
| {1|(0.0,0.0,0.0)}  | +x,+y,+z |
| {-1|(0.0,0.0,0.0)} | -x,-y,-z |
+------------------+----------+
..................

**********************
space group: 3:b {'Hall': 'P 2y', 'HM': 'P 1 2 1'}
Crystal system: Monoclinic
Setting: b
+x,+y,+z
-x,+y,-z
..................
+---------------------+----------+
|        Seitz        |  Jones   |
+---------------------+----------+
|    {1|(0.0,0.0,0.0)}   | +x,+y,+z |
| {2_0y0|(0.0,0.0,0.0)} | -x,+y,-z |
+---------------------+----------+
..................

**********************
space group: 3:c {'Hall': 'P 2', 'HM': 'P 1 1 2'}
Crystal system: Monoclinic
Setting: c
+x,+y,+z
-x,-y,+z
..................
+---------------------+----------+
|        Seitz        |  Jones   |
+---------------------+----------+
|    {1|(0.0,0.0,0.0)}   | +x,+y,+z |
| {2_00z|(0.0,0.0,0.0)} | -x,-y,+z |
+---------------------+----------+
..................
```

```
**********************
space group: 3:a {'Hall': 'P 2x', 'HM': 'P 2 1 1'}
Crystal system: Monoclinic
Setting: a
+x,+y,+z
+x,-y,-z
..................
+----------------------+----------+
|         Seitz        |  Jones   |
+----------------------+----------+
|    {1|(0.0,0.0,0.0)} | +x,+y,+z |
| {2_x00|(0.0,0.0,0.0)} | +x,-y,-z |
+----------------------+----------+
..................

**********************
space group: 4:b {'Hall': ' P 2yb', 'HM': 'P 1 21 1'}
Crystal system: Monoclinic
Setting: b
+x,+y,+z
-x,+y+1/2,-z
..................
+----------------------+-------------+
|         Seitz        |    Jones    |
+----------------------+-------------+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z  |
| {2_0y0|(0.0,0.5,0.0)} | -x,+y+1/2,-z |
+----------------------+-------------+
..................

**********************
space group: 4:c {'Hall': ' P 2c', 'HM': 'P 1 1 21'}
Crystal system: Monoclinic
Setting: c
+x,+y,+z
-x,-y,+z+1/2
..................
+----------------------+-------------+
|         Seitz        |    Jones    |
+----------------------+-------------+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z  |
| {2_00z|(0.0,0.0,0.5)} | -x,-y,+z+1/2 |
+----------------------+-------------+
..................

**********************
space group: 4:a {'Hall': ' P 2xa', 'HM': 'P 21 1 1'}
Crystal system: Monoclinic
Setting: a
+x,+y,+z
+x+1/2,-y,-z
..................
+----------------------+-------------+
```

```
|         Seitz          |    Jones     |
+------------------------+--------------+
|    {1|(0.0,0.0,0.0)}   |  +x,+y,+z    |
| {2_x00|(0.5,0.0,0.0)}  | +x+1/2,-y,-z |
+------------------------+--------------+

.................


**********************
space group: 5:b1 {'Hall': 'C 2y', 'HM': ' C 1 2 1'}
Crystal system: Monoclinic
Setting: b1
+x,+y,+z
-x,+y,-z
.................
+-----------------------+------------------+
|         Seitz         |      Jones       |
+-----------------------+------------------+
|    {1|(0.0,0.0,0.0)}  |    +x,+y,+z      |
| {2_0y0|(0.0,0.0,0.0)} |    -x,+y,-z      |
|    {1|(0.5,0.5,0.0)}  | +x+1/2,+y+1/2,+z |
| {2_0y0|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,-z |
+-----------------------+------------------+

.................


**********************
space group: 5:b2 {'Hall': 'A 2y', 'HM': ' A 1 2 1'}
Crystal system: Monoclinic
Setting: b2
+x,+y,+z
-x,+y,-z
.................
+-----------------------+------------------+
|         Seitz         |      Jones       |
+-----------------------+------------------+
|    {1|(0.0,0.0,0.0)}  |    +x,+y,+z      |
| {2_0y0|(0.0,0.0,0.0)} |    -x,+y,-z      |
|    {1|(0.0,0.5,0.5)}  | +x,+y+1/2,+z+1/2 |
| {2_0y0|(0.0,0.5,0.5)} | -x,+y+1/2,-z+1/2 |
+-----------------------+------------------+

.................


**********************
space group: 5:b3 {'Hall': 'I 2y', 'HM': ' I 1 2 1'}
Crystal system: Monoclinic
Setting: b3
+x,+y,+z
-x,+y,-z
.................
+-----------------------+---------------------+
|         Seitz         |        Jones        |
+-----------------------+---------------------+
|    {1|(0.0,0.0,0.0)}  |      +x,+y,+z       |
| {2_0y0|(0.0,0.0,0.0)} |      -x,+y,-z       |
|    {1|(0.5,0.5,0.5)}  | +x+1/2,+y+1/2,+z+1/2 |
```

```
| {2_0y0|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,−z+1/2 |
+---------------------+--------------------+
```

....

****
space group: 5:c1 {'Hall': 'A 2', 'HM': ' A 1 1 2'}
Crystal system: Monoclinic
Setting: c1
+x,+y,+z
−x,−y,+z

....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |    −x,−y,+z     |
|    {1|(0.0,0.5,0.5)} | +x,+y+1/2,+z+1/2 |
| {2_00z|(0.0,0.5,0.5)} | −x,−y+1/2,+z+1/2 |
+---------------------+-----------------+
```

....

****
space group: 5:c2 {'Hall': 'B 2', 'HM': ' B 1 1 2'}
Crystal system: Monoclinic
Setting: c2
+x,+y,+z
−x,−y,+z

....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |    −x,−y,+z     |
|    {1|(0.5,0.0,0.5)} | +x+1/2,+y,+z+1/2 |
| {2_00z|(0.5,0.0,0.5)} | −x+1/2,−y,+z+1/2 |
+---------------------+-----------------+
```

....

****
space group: 5:c3 {'Hall': 'I 2', 'HM': ' I 1 1 2'}
Crystal system: Monoclinic
Setting: c3
+x,+y,+z
−x,−y,+z

....

```
+---------------------+--------------------+
|        Seitz        |       Jones        |
+---------------------+--------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z       |
| {2_00z|(0.0,0.0,0.0)} |     −x,−y,+z       |
|    {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.5,0.5)} | −x+1/2,−y+1/2,+z+1/2 |
+---------------------+--------------------+
```

....

```
**********************
space group: 5:a1 {'Hall': 'B 2x', 'HM': ' B 2 1 1'}
Crystal system: Monoclinic
Setting: a1
+x,+y,+z
+x,-y,-z
..................
+---------------------+------------------+
|        Seitz        |       Jones      |
+---------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_x00|(0.0,0.0,0.0)} |     +x,-y,-z     |
|    {1|(0.5,0.0,0.5)} | +x+1/2,+y,+z+1/2 |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,-y,-z+1/2 |
+---------------------+------------------+
..................


**********************
space group: 5:a2 {'Hall': 'C 2x', 'HM': ' C 2 1 1'}
Crystal system: Monoclinic
Setting: a2
+x,+y,+z
+x,-y,-z
..................
+---------------------+------------------+
|        Seitz        |       Jones      |
+---------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_x00|(0.0,0.0,0.0)} |     +x,-y,-z     |
|    {1|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,+z |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,-z |
+---------------------+------------------+
..................


**********************
space group: 5:a3 {'Hall': 'I 2x', 'HM': ' I 2 1 1'}
Crystal system: Monoclinic
Setting: a3
+x,+y,+z
+x,-y,-z
..................
+---------------------+--------------------+
|        Seitz        |        Jones       |
+---------------------+--------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z      |
| {2_x00|(0.0,0.0,0.0)} |      +x,-y,-z      |
|    {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {2_x00|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,-z+1/2 |
+---------------------+--------------------+
..................


**********************
space group: 6:b {'Hall': 'P -2y', 'HM': 'P 1 m 1'}
```

Crystal system: Monoclinic
Setting: b
+x,+y,+z
+x,−y,+z
....
+---------------------+----------+
| Seitz | Jones |
+---------------------+----------+
| {1|(0.0,0.0,0.0)} | +x,+y,+z |
| {m_x0z|(0.0,0.0,0.0)} | +x,−y,+z |
+---------------------+----------+
....

****
space group: 6:c {'Hall': 'P −2', 'HM': 'P 1 1 m'}
Crystal system: Monoclinic
Setting: c
+x,+y,+z
+x,+y,−z
....
+---------------------+----------+
| Seitz | Jones |
+---------------------+----------+
| {1|(0.0,0.0,0.0)} | +x,+y,+z |
| {m_xy0|(0.0,0.0,0.0)} | +x,+y,−z |
+---------------------+----------+
....

****
space group: 6:a {'Hall': 'P −2x', 'HM': 'P m 1 1'}
Crystal system: Monoclinic
Setting: a
+x,+y,+z
−x,+y,+z
....
+---------------------+----------+
| Seitz | Jones |
+---------------------+----------+
| {1|(0.0,0.0,0.0)} | +x,+y,+z |
| {m_0yz|(0.0,0.0,0.0)} | −x,+y,+z |
+---------------------+----------+
....

****
space group: 7:b1 {'Hall': 'P −2yc', 'HM': ' P 1 c 1'}
Crystal system: Monoclinic
Setting: b1
+x,+y,+z
+x,−y,+z+1/2
....
+---------------------+--------------+
| Seitz | Jones |
+---------------------+--------------+
| {1|(0.0,0.0,0.0)} | +x,+y,+z |

```
| {m_x0z|(0.0,0.0,0.5)} | +x,−y,+z+1/2 |
+---------------------+-------------+

...................

*********************
space group: 7:b2 {'Hall': 'P −2yac', 'HM': ' P 1 n 1'}
Crystal system: Monoclinic
Setting: b2
+x,+y,+z
+x+1/2,−y,+z+1/2

...................
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z    |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,−y,+z+1/2 |
+---------------------+-----------------+

...................

*********************
space group: 7:b3 {'Hall': 'P −2ya', 'HM': ' P 1 a 1'}
Crystal system: Monoclinic
Setting: b3
+x,+y,+z
+x+1/2,−y,+z

...................
+---------------------+-------------+
|        Seitz        |    Jones    |
+---------------------+-------------+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z   |
| {m_x0z|(0.5,0.0,0.0)} | +x+1/2,−y,+z |
+---------------------+-------------+

...................

*********************
space group: 7:c1 {'Hall': 'P −2a', 'HM': ' P 1 1 a'}
Crystal system: Monoclinic
Setting: c1
+x,+y,+z
+x+1/2,+y,−z

...................
+---------------------+-------------+
|        Seitz        |    Jones    |
+---------------------+-------------+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z   |
| {m_xy0|(0.5,0.0,0.0)} | +x+1/2,+y,−z |
+---------------------+-------------+

...................

*********************
space group: 7:c2 {'Hall': 'P −2ab', 'HM': ' P 1 1 n'}
Crystal system: Monoclinic
Setting: c2
+x,+y,+z
```

```
+x+1/2,+y+1/2,-z
...................
+--------------------+----------------+
|        Seitz       |      Jones     |
+--------------------+----------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z    |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,-z |
+--------------------+----------------+
...................


**********************
space group: 7:c3 {'Hall': 'P -2b', 'HM': ' P 1 1 b'}
Crystal system: Monoclinic
Setting: c3
+x,+y,+z
+x,+y+1/2,-z
...................
+--------------------+-------------+
|        Seitz       |     Jones   |
+--------------------+-------------+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z  |
| {m_xy0|(0.0,0.5,0.0)} | +x,+y+1/2,-z |
+--------------------+-------------+
...................


**********************
space group: 7:a1 {'Hall': 'P -2xb', 'HM': ' P b 1 1'}
Crystal system: Monoclinic
Setting: a1
+x,+y,+z
-x,+y+1/2,+z
...................
+--------------------+-------------+
|        Seitz       |     Jones   |
+--------------------+-------------+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z  |
| {m_0yz|(0.0,0.5,0.0)} | -x,+y+1/2,+z |
+--------------------+-------------+
...................


**********************
space group: 7:a2 {'Hall': 'P -2xbc', 'HM': ' P n 1 1'}
Crystal system: Monoclinic
Setting: a2
+x,+y,+z
-x,+y+1/2,+z+1/2
...................
+--------------------+----------------+
|        Seitz       |      Jones     |
+--------------------+----------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z    |
| {m_0yz|(0.0,0.5,0.5)} | -x,+y+1/2,+z+1/2 |
+--------------------+----------------+
...................
```

```
**********************
space group: 7:a3 {'Hall': 'P −2xc', 'HM': ' P c 1 1'}
Crystal system: Monoclinic
Setting: a3
+x,+y,+z
−x,+y,+z+1/2
..................
+----------------------+--------------+
|         Seitz        |     Jones    |
+----------------------+--------------+
|     {1|(0.0,0.0,0.0)} |    +x,+y,+z   |
| {m_0yz|(0.0,0.0,0.5)} | −x,+y,+z+1/2 |
+----------------------+--------------+
..................


**********************
space group: 8:b1 {'Hall': 'C −2y', 'HM': ' C 1 m 1'}
Crystal system: Monoclinic
Setting: b1
+x,+y,+z
+x,−y,+z
..................
+----------------------+------------------+
|         Seitz        |       Jones      |
+----------------------+------------------+
|     {1|(0.0,0.0,0.0)} |      +x,+y,+z     |
| {m_x0z|(0.0,0.0,0.0)} |      +x,−y,+z     |
|     {1|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,+z |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,+z |
+----------------------+------------------+
..................


**********************
space group: 8:b2 {'Hall': 'A −2y', 'HM': ' A 1 m 1'}
Crystal system: Monoclinic
Setting: b2
+x,+y,+z
+x,−y,+z
..................
+----------------------+------------------+
|         Seitz        |       Jones      |
+----------------------+------------------+
|     {1|(0.0,0.0,0.0)} |      +x,+y,+z     |
| {m_x0z|(0.0,0.0,0.0)} |      +x,−y,+z     |
|     {1|(0.0,0.5,0.5)} | +x,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.5,0.5)} | +x,−y+1/2,+z+1/2 |
+----------------------+------------------+
..................


**********************
space group: 8:b3 {'Hall': 'I −2y', 'HM': ' I 1 m 1'}
Crystal system: Monoclinic
Setting: b3
```

```
+x,+y,+z
+x,−y,+z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|   {1|(0.0,0.0,0.0)} |      +x,+y,+z       |
| {m_x0z|(0.0,0.0,0.0)} |      +x,−y,+z       |
|   {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2 |
+---------------------+---------------------+
..................

**********************
space group: 8:c1 {'Hall': 'A −2', 'HM': ' A 1 1 m'}
Crystal system: Monoclinic
Setting: c1
+x,+y,+z
+x,+y,−z
..................
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|   {1|(0.0,0.0,0.0)} |    +x,+y,+z     |
| {m_xy0|(0.0,0.0,0.0)} |    +x,+y,−z     |
|   {1|(0.0,0.5,0.5)} | +x,+y+1/2,+z+1/2 |
| {m_xy0|(0.0,0.5,0.5)} | +x,+y+1/2,−z+1/2 |
+---------------------+-----------------+
..................

**********************
space group: 8:c2 {'Hall': 'B −2', 'HM': ' B 1 1 m'}
Crystal system: Monoclinic
Setting: c2
+x,+y,+z
+x,+y,−z
..................
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|   {1|(0.0,0.0,0.0)} |    +x,+y,+z     |
| {m_xy0|(0.0,0.0,0.0)} |    +x,+y,−z     |
|   {1|(0.5,0.0,0.5)} | +x+1/2,+y,+z+1/2 |
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,−z+1/2 |
+---------------------+-----------------+
..................

**********************
space group: 8:c3 {'Hall': 'I −2', 'HM': ' I 1 1 m'}
Crystal system: Monoclinic
Setting: c3
+x,+y,+z
+x,+y,−z
..................
```

```
+--------------------------+--------------------------+
|          Seitz           |           Jones          |
+--------------------------+--------------------------+
|    {1|(0.0,0.0,0.0)}     |        +x,+y,+z          |
|  {m_xy0|(0.0,0.0,0.0)}   |        +x,+y,-z          |
|    {1|(0.5,0.5,0.5)}     |  +x+1/2,+y+1/2,+z+1/2    |
|  {m_xy0|(0.5,0.5,0.5)}   |  +x+1/2,+y+1/2,-z+1/2    |
+--------------------------+--------------------------+
..................

**********************
space group: 8:a1 {'Hall': 'B -2x', 'HM': ' B m 1 1'}
Crystal system: Monoclinic
Setting: a1
+x,+y,+z
-x,+y,+z
..................
+--------------------------+------------------+
|          Seitz           |      Jones       |
+--------------------------+------------------+
|    {1|(0.0,0.0,0.0)}     |    +x,+y,+z      |
|  {m_0yz|(0.0,0.0,0.0)}   |    -x,+y,+z      |
|    {1|(0.5,0.0,0.5)}     | +x+1/2,+y,+z+1/2 |
|  {m_0yz|(0.5,0.0,0.5)}   | -x+1/2,+y,+z+1/2 |
+--------------------------+------------------+
..................

**********************
space group: 8:a2 {'Hall': 'C -2x', 'HM': ' C m 1 1'}
Crystal system: Monoclinic
Setting: a2
+x,+y,+z
-x,+y,+z
..................
+--------------------------+------------------+
|          Seitz           |      Jones       |
+--------------------------+------------------+
|    {1|(0.0,0.0,0.0)}     |    +x,+y,+z      |
|  {m_0yz|(0.0,0.0,0.0)}   |    -x,+y,+z      |
|    {1|(0.5,0.5,0.0)}     | +x+1/2,+y+1/2,+z |
|  {m_0yz|(0.5,0.5,0.0)}   | -x+1/2,+y+1/2,+z |
+--------------------------+------------------+
..................

**********************
space group: 8:a3 {'Hall': 'I -2x', 'HM': ' I m 1 1'}
Crystal system: Monoclinic
Setting: a3
+x,+y,+z
-x,+y,+z
..................
+--------------------------+----------------------+
|          Seitz           |        Jones         |
+--------------------------+----------------------+
```

```
|    {1|(0.0,0.0,0.0)}    |        +x,+y,+z         |
| {m_0yz|(0.0,0.0,0.0)}   |        −x,+y,+z         |
|    {1|(0.5,0.5,0.5)}    | +x+1/2,+y+1/2,+z+1/2   |
| {m_0yz|(0.5,0.5,0.5)}   | −x+1/2,+y+1/2,+z+1/2   |
+─────────────────────+─────────────────────+
.................

*********************
space group: 9:b1 {'Hall': 'C −2yc', 'HM': ' C 1 c 1'}
Crystal system: Monoclinic
Setting: b1
+x,+y,+z
+x,−y,+z+1/2
.................
+─────────────────────+─────────────────────+
|         Seitz         |         Jones         |
+─────────────────────+─────────────────────+
|    {1|(0.0,0.0,0.0)}    |        +x,+y,+z         |
| {m_x0z|(0.0,0.0,0.5)}   |      +x,−y,+z+1/2      |
|    {1|(0.5,0.5,0.0)}    |    +x+1/2,+y+1/2,+z    |
| {m_x0z|(0.5,0.5,0.5)}   | +x+1/2,−y+1/2,+z+1/2   |
+─────────────────────+─────────────────────+
.................

*********************
space group: 9:b2 {'Hall': 'A −2yac', 'HM': ' A 1 n 1'}
Crystal system: Monoclinic
Setting: b2
+x,+y,+z
+x+1/2,−y,+z+1/2
.................
+─────────────────────+─────────────────+
|         Seitz         |       Jones       |
+─────────────────────+─────────────────+
|    {1|(0.0,0.0,0.0)}    |     +x,+y,+z      |
| {m_x0z|(0.5,0.0,0.5)}   | +x+1/2,−y,+z+1/2  |
|    {1|(0.0,0.5,0.5)}    | +x,+y+1/2,+z+1/2  |
| {m_x0z|(0.5,0.5,0.0)}   | +x+1/2,−y+1/2,+z  |
+─────────────────────+─────────────────+
.................

*********************
space group: 9:b3 {'Hall': 'I −2ya', 'HM': ' I 1 a 1'}
Crystal system: Monoclinic
Setting: b3
+x,+y,+z
+x+1/2,−y,+z
.................
+─────────────────────+─────────────────────+
|         Seitz         |         Jones         |
+─────────────────────+─────────────────────+
|    {1|(0.0,0.0,0.0)}    |        +x,+y,+z         |
| {m_x0z|(0.5,0.0,0.0)}   |      +x+1/2,−y,+z      |
|    {1|(0.5,0.5,0.5)}    | +x+1/2,+y+1/2,+z+1/2   |
```

```
| {m_x0z|(0.0,0.5,0.5)} |    +x,−y+1/2,+z+1/2    |
+----------------------+----------------------+
```
....

```
**********************
space group: 9:−b1 {'Hall': 'A −2ya', 'HM': 'A 1 a 1'}
Crystal system: Monoclinic
Setting: −b1
+x,+y,+z
+x+1/2,−y,+z
```
....
```
+----------------------+----------------------+
|        Seitz         |        Jones         |
+----------------------+----------------------+
|    {1|(0.0,0.0,0.0)} |       +x,+y,+z        |
| {m_x0z|(0.5,0.0,0.0)} |     +x+1/2,−y,+z      |
|    {1|(0.0,0.5,0.5)} |    +x,+y+1/2,+z+1/2   |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2 |
+----------------------+----------------------+
```
....

```
**********************
space group: 9:−b2 {'Hall': 'C −2ybc', 'HM': 'C 1 n 1'}
Crystal system: Monoclinic
Setting: −b2
+x,+y,+z
+x,−y+1/2,+z+1/2
```
....
```
+----------------------+------------------+
|        Seitz         |      Jones       |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {m_x0z|(0.0,0.5,0.5)} |  +x,−y+1/2,+z+1/2 |
|    {1|(0.5,0.5,0.0)} |  +x+1/2,+y+1/2,+z |
| {m_x0z|(0.5,0.0,0.5)} |  +x+1/2,−y,+z+1/2 |
+----------------------+------------------+
```
....

```
**********************
space group: 9:−b3 {'Hall': 'I −2yc', 'HM': 'I 1 c 1'}
Crystal system: Monoclinic
Setting: −b3
+x,+y,+z
+x,−y,+z+1/2
```
....
```
+----------------------+----------------------+
|        Seitz         |        Jones         |
+----------------------+----------------------+
|    {1|(0.0,0.0,0.0)} |       +x,+y,+z        |
| {m_x0z|(0.0,0.0,0.5)} |     +x,−y,+z+1/2      |
|    {1|(0.5,0.5,0.5)} |  +x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.0)} |    +x+1/2,−y+1/2,+z   |
+----------------------+----------------------+
```
....

```
**********************
space group: 9:c1 {'Hall': 'A -2a', 'HM': ' A 1 1 a'}
Crystal system: Monoclinic
Setting: c1
+x,+y,+z
+x+1/2,+y,-z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z       |
| {m_xy0|(0.5,0.0,0.0)} |     +x+1/2,+y,-z    |
|    {1|(0.0,0.5,0.5)} |    +x,+y+1/2,+z+1/2  |
| {m_xy0|(0.5,0.5,0.5)} |  +x+1/2,+y+1/2,-z+1/2 |
+---------------------+---------------------+

..................


**********************
space group: 9:c2 {'Hall': 'B -2bc', 'HM': ' B 1 1 n'}
Crystal system: Monoclinic
Setting: c2
+x,+y,+z
+x,+y+1/2,-z+1/2
..................
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z    |
| {m_xy0|(0.0,0.5,0.5)} |  +x,+y+1/2,-z+1/2 |
|    {1|(0.5,0.0,0.5)} |  +x+1/2,+y,+z+1/2 |
| {m_xy0|(0.5,0.5,0.0)} |  +x+1/2,+y+1/2,-z |
+---------------------+-----------------+

..................


**********************
space group: 9:c3 {'Hall': 'I -2b', 'HM': ' I 1 1 b'}
Crystal system: Monoclinic
Setting: c3
+x,+y,+z
+x,+y+1/2,-z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z       |
| {m_xy0|(0.0,0.5,0.0)} |     +x,+y+1/2,-z    |
|    {1|(0.5,0.5,0.5)} |  +x+1/2,+y+1/2,+z+1/2 |
| {m_xy0|(0.5,0.0,0.5)} |    +x+1/2,+y,-z+1/2  |
+---------------------+---------------------+

..................


**********************
space group: 9:-c1 {'Hall': 'B -2b', 'HM': 'B 1 1 b'}
```

Crystal system: Monoclinic
Setting: −c1
+x,+y,+z
+x,+y+1/2,−z
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0|(0.0,0.5,0.0)}	+x,+y+1/2,−z
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{m_xy0|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,−z+1/2

....

****
space group: 9:−c2 {'Hall': 'A −2ac', 'HM': 'A 1 1 n'}
Crystal system: Monoclinic
Setting: −c2
+x,+y,+z
+x+1/2,+y,−z+1/2
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0|(0.5,0.0,0.5)}	+x+1/2,+y,−z+1/2
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{m_xy0|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,−z

....

****
space group: 9:−c3 {'Hall': 'I −2a', 'HM': 'I 1 1 a'}
Crystal system: Monoclinic
Setting: −c3
+x,+y,+z
+x+1/2,+y,−z
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0|(0.5,0.0,0.0)}	+x+1/2,+y,−z
{1|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2
{m_xy0|(0.0,0.5,0.5)}	+x,+y+1/2,−z+1/2

....

****
space group: 9:a1 {'Hall': 'B −2xb', 'HM': ' B b 1 1'}
Crystal system: Monoclinic
Setting: a1
+x,+y,+z

−x,+y+1/2,+z
....
```
+---------------------+----------------------+
|        Seitz        |        Jones         |
+---------------------+----------------------+
|    {1|(0.0,0.0,0.0)} |       +x,+y,+z       |
| {m_0yz|(0.0,0.5,0.0)} |     −x,+y+1/2,+z     |
|    {1|(0.5,0.0,0.5)} |    +x+1/2,+y,+z+1/2  |
| {m_0yz|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,+z+1/2 |
+---------------------+----------------------+
```
....

```
**********************
```
space group: 9:a2 {'Hall': 'C −2xbc', 'HM': ' C n 1 1'}
Crystal system: Monoclinic
Setting: a2
+x,+y,+z
−x,+y+1/2,+z+1/2
....
```
+---------------------+------------------+
|        Seitz        |       Jones      |
+---------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {m_0yz|(0.0,0.5,0.5)} | −x,+y+1/2,+z+1/2 |
|    {1|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,+z |
| {m_0yz|(0.5,0.0,0.5)} |  −x+1/2,+y,+z+1/2|
+---------------------+------------------+
```
....

```
**********************
```
space group: 9:a3 {'Hall': 'I −2xc', 'HM': ' I c 1 1'}
Crystal system: Monoclinic
Setting: a3
+x,+y,+z
−x,+y,+z+1/2
....
```
+---------------------+----------------------+
|        Seitz        |        Jones         |
+---------------------+----------------------+
|    {1|(0.0,0.0,0.0)} |       +x,+y,+z       |
| {m_0yz|(0.0,0.0,0.5)} |     −x,+y,+z+1/2     |
|    {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} |   −x+1/2,+y+1/2,+z   |
+---------------------+----------------------+
```
....

```
**********************
```
space group: 9:−a1 {'Hall': 'C −2xc', 'HM': 'C c 1 1'}
Crystal system: Monoclinic
Setting: −a1
+x,+y,+z
−x,+y,+z+1/2
....
```
+---------------------+----------------------+
```

```
|        Seitz           |        Jones       |
+------------------------+--------------------+
|     {1|(0.0,0.0,0.0)}  |     +x,+y,+z       |
| {m_0yz|(0.0,0.0,0.5)}  |    -x,+y,+z+1/2    |
|     {1|(0.5,0.5,0.0)}  |   +x+1/2,+y+1/2,+z |
| {m_0yz|(0.5,0.5,0.5)}  | -x+1/2,+y+1/2,+z+1/2 |
+------------------------+--------------------+

..................

**********************
space group: 9:-a2 {'Hall': 'B -2xbc', 'HM': 'B n 1 1'}
Crystal system: Monoclinic
Setting: -a2
+x,+y,+z
-x,+y+1/2,+z+1/2

..................
+--------------------+----------------+
|        Seitz       |      Jones     |
+--------------------+----------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z     |
| {m_0yz|(0.0,0.5,0.5)} | -x,+y+1/2,+z+1/2 |
|    {1|(0.5,0.0,0.5)} | +x+1/2,+y,+z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,+z |
+--------------------+----------------+

..................

**********************
space group: 9:-a3 {'Hall': 'I -2xb', 'HM': 'I b 1 1'}
Crystal system: Monoclinic
Setting: -a3
+x,+y,+z
-x,+y+1/2,+z

..................
+--------------------+--------------------+
|        Seitz       |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z       |
| {m_0yz|(0.0,0.5,0.0)} |    -x,+y+1/2,+z    |
|    {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {m_0yz|(0.5,0.0,0.5)} |   -x+1/2,+y,+z+1/2 |
+--------------------+--------------------+

..................

**********************
space group: 10:b {'Hall': ' -P 2y', 'HM': 'P 1 2/m 1'}
Crystal system: Monoclinic
Setting: b
+x,+y,+z
-x,+y,-z

..................
+--------------------+----------+
|        Seitz       |   Jones  |
+--------------------+----------+
|    {1|(0.0,0.0,0.0)} | +x,+y,+z |
```

```
|  {2_0y0|(0.0,0.0,0.0)} | -x,+y,-z |
|    {-1|(0.0,0.0,0.0)}  | -x,-y,-z |
| {m_x0z|(0.0,0.0,0.0)}  | +x,-y,+z |
+------------------------+----------+
..................


**********************
space group: 10:c {'Hall': ' -P 2', 'HM': 'P 1 1 2/m'}
Crystal system: Monoclinic
Setting: c
+x,+y,+z
-x,-y,+z
..................
+------------------------+----------+
|         Seitz          |   Jones  |
+------------------------+----------+
|    {1|(0.0,0.0,0.0)}   | +x,+y,+z |
| {2_00z|(0.0,0.0,0.0)}  | -x,-y,+z |
|    {-1|(0.0,0.0,0.0)}  | -x,-y,-z |
| {m_xy0|(0.0,0.0,0.0)}  | +x,+y,-z |
+------------------------+----------+
..................


**********************
space group: 10:a {'Hall': ' -P 2x', 'HM': 'P 2/m 1 1'}
Crystal system: Monoclinic
Setting: a
+x,+y,+z
+x,-y,-z
..................
+------------------------+----------+
|         Seitz          |   Jones  |
+------------------------+----------+
|    {1|(0.0,0.0,0.0)}   | +x,+y,+z |
| {2_x00|(0.0,0.0,0.0)}  | +x,-y,-z |
|    {-1|(0.0,0.0,0.0)}  | -x,-y,-z |
| {m_0yz|(0.0,0.0,0.0)}  | -x,+y,+z |
+------------------------+----------+
..................


**********************
space group: 11:b {'Hall': '-P 2yb', 'HM': 'P 1 21/m 1'}
Crystal system: Monoclinic
Setting: b
+x,+y,+z
-x,+y+1/2,-z
..................
+------------------------+--------------+
|         Seitz          |     Jones    |
+------------------------+--------------+
|    {1|(0.0,0.0,0.0)}   |   +x,+y,+z   |
| {2_0y0|(0.0,0.5,0.0)}  | -x,+y+1/2,-z |
|    {-1|(0.0,0.0,0.0)}  |   -x,-y,-z   |
| {m_x0z|(0.0,0.5,0.0)}  | +x,-y+1/2,+z |
```

```
+--------------------+-------------+
....................

*********************
space group: 11:c {'Hall': '-P 2c', 'HM': 'P 1 1 21/m'}
Crystal system: Monoclinic
Setting: c
+x,+y,+z
-x,-y,+z+1/2
....................
+--------------------+-------------+
|        Seitz       |    Jones    |
+--------------------+-------------+
|    {1|(0.0,0.0,0.0)}    |    +x,+y,+z   |
| {2_00z|(0.0,0.0,0.5)} | -x,-y,+z+1/2 |
|   {-1|(0.0,0.0,0.0)}    |    -x,-y,-z   |
| {m_xy0|(0.0,0.0,0.5)} | +x,+y,-z+1/2 |
+--------------------+-------------+

....................

*********************
space group: 11:a {'Hall': '-P 2xa', 'HM': 'P 21/m 1 1'}
Crystal system: Monoclinic
Setting: a
+x,+y,+z
+x+1/2,-y,-z
....................
+--------------------+-------------+
|        Seitz       |    Jones    |
+--------------------+-------------+
|    {1|(0.0,0.0,0.0)}    |    +x,+y,+z   |
| {2_x00|(0.5,0.0,0.0)} | +x+1/2,-y,-z |
|   {-1|(0.0,0.0,0.0)}    |    -x,-y,-z   |
| {m_0yz|(0.5,0.0,0.0)} | -x+1/2,+y,+z |
+--------------------+-------------+
....................

*********************
space group: 12:b1 {'Hall': ' -C 2y', 'HM': ' C 1 2/m 1'}
Crystal system: Monoclinic
Setting: b1
+x,+y,+z
-x,+y,-z
....................
+--------------------+----------------+
|        Seitz       |      Jones     |
+--------------------+----------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z     |
| {2_0y0|(0.0,0.0,0.0)} |      -x,+y,-z     |
|   {-1|(0.0,0.0,0.0)}    |      -x,-y,-z     |
| {m_x0z|(0.0,0.0,0.0)} |      +x,-y,+z     |
|    {1|(0.5,0.5,0.0)}    | +x+1/2,+y+1/2,+z |
| {2_0y0|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,-z |
|   {-1|(0.5,0.5,0.0)}    | -x+1/2,-y+1/2,-z |
```

```
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,+z |
+---------------------+-----------------+
..................

*********************
space group: 12:b2 {'Hall': ' -A 2y', 'HM': ' A 1 2/m 1'}
Crystal system: Monoclinic
Setting: b2
+x,+y,+z
-x,+y,-z
..................
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_0y0|(0.0,0.0,0.0)} |     -x,+y,-z     |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
| {m_x0z|(0.0,0.0,0.0)} |     +x,-y,+z     |
|    {1|(0.0,0.5,0.5)} | +x,+y+1/2,+z+1/2 |
| {2_0y0|(0.0,0.5,0.5)} | -x,+y+1/2,-z+1/2 |
|   {-1|(0.0,0.5,0.5)} | -x,-y+1/2,-z+1/2 |
| {m_x0z|(0.0,0.5,0.5)} | +x,-y+1/2,+z+1/2 |
+---------------------+-----------------+
..................

*********************
space group: 12:b3 {'Hall': ' -I 2y', 'HM': ' I 1 2/m 1'}
Crystal system: Monoclinic
Setting: b3
+x,+y,+z
-x,+y,-z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |       +x,+y,+z       |
| {2_0y0|(0.0,0.0,0.0)} |       -x,+y,-z       |
|   {-1|(0.0,0.0,0.0)} |       -x,-y,-z       |
| {m_x0z|(0.0,0.0,0.0)} |       +x,-y,+z       |
|    {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {2_0y0|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,-z+1/2 |
|   {-1|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,-z+1/2 |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
+---------------------+---------------------+
..................

*********************
space group: 12:c1 {'Hall': ' -A 2', 'HM': ' A 1 1 2/m'}
Crystal system: Monoclinic
Setting: c1
+x,+y,+z
-x,-y,+z
..................
+---------------------+-----------------+
```

```
|        Seitz         |      Jones      |
+----------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)}|    -x,-y,+z      |
|   {-1|(0.0,0.0,0.0)} |    -x,-y,-z      |
| {m_xy0|(0.0,0.0,0.0)}|    +x,+y,-z      |
|    {1|(0.0,0.5,0.5)} | +x,+y+1/2,+z+1/2 |
| {2_00z|(0.0,0.5,0.5)}| -x,-y+1/2,+z+1/2 |
|   {-1|(0.0,0.5,0.5)} | -x,-y+1/2,-z+1/2 |
| {m_xy0|(0.0,0.5,0.5)}| +x,+y+1/2,-z+1/2 |
+----------------------+-----------------+

..................

*********************
space group: 12:c2 {'Hall': ' -B 2', 'HM': ' B 1 1 2/m'}
Crystal system: Monoclinic
Setting: c2
+x,+y,+z
-x,-y,+z

..................

+----------------------+-----------------+
|        Seitz         |      Jones      |
+----------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)}|    -x,-y,+z      |
|   {-1|(0.0,0.0,0.0)} |    -x,-y,-z      |
| {m_xy0|(0.0,0.0,0.0)}|    +x,+y,-z      |
|    {1|(0.5,0.0,0.5)} | +x+1/2,+y,+z+1/2 |
| {2_00z|(0.5,0.0,0.5)}| -x+1/2,-y,+z+1/2 |
|   {-1|(0.5,0.0,0.5)} | -x+1/2,-y,-z+1/2 |
| {m_xy0|(0.5,0.0,0.5)}| +x+1/2,+y,-z+1/2 |
+----------------------+-----------------+

..................

*********************
space group: 12:c3 {'Hall': ' -I 2', 'HM': ' I 1 1 2/m'}
Crystal system: Monoclinic
Setting: c3
+x,+y,+z
-x,-y,+z

..................

+----------------------+--------------------+
|        Seitz         |       Jones        |
+----------------------+--------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z        |
| {2_00z|(0.0,0.0,0.0)}|     -x,-y,+z        |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z        |
| {m_xy0|(0.0,0.0,0.0)}|     +x,+y,-z        |
|    {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.5,0.5)}| -x+1/2,-y+1/2,+z+1/2 |
|   {-1|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,-z+1/2 |
| {m_xy0|(0.5,0.5,0.5)}| +x+1/2,+y+1/2,-z+1/2 |
+----------------------+--------------------+

..................
```

```
**********************
space group: 12:a1 {'Hall': ' -B 2x', 'HM': ' B 2/m 1 1'}
Crystal system: Monoclinic
Setting: a1
+x,+y,+z
+x,-y,-z
...................
+----------------------+------------------+
|         Seitz        |       Jones      |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_x00|(0.0,0.0,0.0)}|     +x,-y,-z     |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
| {m_0yz|(0.0,0.0,0.0)}|     -x,+y,+z     |
|    {1|(0.5,0.0,0.5)} |  +x+1/2,+y,+z+1/2|
| {2_x00|(0.5,0.0,0.5)}|  +x+1/2,-y,-z+1/2|
|   {-1|(0.5,0.0,0.5)} |  -x+1/2,-y,-z+1/2|
| {m_0yz|(0.5,0.0,0.5)}|  -x+1/2,+y,+z+1/2|
+----------------------+------------------+
...................

**********************
space group: 12:a2 {'Hall': ' -C 2x', 'HM': ' C 2/m 1 1'}
Crystal system: Monoclinic
Setting: a2
+x,+y,+z
+x,-y,-z
...................
+----------------------+------------------+
|         Seitz        |       Jones      |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_x00|(0.0,0.0,0.0)}|     +x,-y,-z     |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
| {m_0yz|(0.0,0.0,0.0)}|     -x,+y,+z     |
|    {1|(0.5,0.5,0.0)} |  +x+1/2,+y+1/2,+z|
| {2_x00|(0.5,0.5,0.0)}|  +x+1/2,-y+1/2,-z|
|   {-1|(0.5,0.5,0.0)} |  -x+1/2,-y+1/2,-z|
| {m_0yz|(0.5,0.5,0.0)}|  -x+1/2,+y+1/2,+z|
+----------------------+------------------+
...................

**********************
space group: 12:a3 {'Hall': ' -I 2x', 'HM': ' I 2/m 1 1'}
Crystal system: Monoclinic
Setting: a3
+x,+y,+z
+x,-y,-z
...................
+----------------------+---------------------+
|         Seitz        |        Jones        |
+----------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |       +x,+y,+z       |
```

```
| {2_x00|(0.0,0.0,0.0)} |        +x,-y,-z        |
|   {-1|(0.0,0.0,0.0)}  |        -x,-y,-z        |
| {m_0yz|(0.0,0.0,0.0)} |        -x,+y,+z        |
|   {1|(0.5,0.5,0.5)}   | +x+1/2,+y+1/2,+z+1/2  |
| {2_x00|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,-z+1/2  |
|   {-1|(0.5,0.5,0.5)}  | -x+1/2,-y+1/2,-z+1/2  |
| {m_0yz|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,+z+1/2  |
+-----------------------+-----------------------+
..................

***********************
space group: 13:b1 {'Hall': ' -P 2yc', 'HM': ' P 1 2/c 1'}
Crystal system: Monoclinic
Setting: b1
+x,+y,+z
-x,+y,-z+1/2
..................
+-----------------------+--------------+
|        Seitz          |    Jones     |
+-----------------------+--------------+
|    {1|(0.0,0.0,0.0)}  |   +x,+y,+z   |
| {2_0y0|(0.0,0.0,0.5)} | -x,+y,-z+1/2 |
|   {-1|(0.0,0.0,0.0)}  |   -x,-y,-z   |
| {m_x0z|(0.0,0.0,0.5)} | +x,-y,+z+1/2 |
+-----------------------+--------------+
..................

***********************
space group: 13:b2 {'Hall': ' -P 2yac', 'HM': ' P 1 2/n 1'}
Crystal system: Monoclinic
Setting: b2
+x,+y,+z
-x+1/2,+y,-z+1/2
..................
+-----------------------+-----------------+
|        Seitz          |      Jones      |
+-----------------------+-----------------+
|    {1|(0.0,0.0,0.0)}  |     +x,+y,+z    |
| {2_0y0|(0.5,0.0,0.5)} | -x+1/2,+y,-z+1/2 |
|   {-1|(0.0,0.0,0.0)}  |     -x,-y,-z    |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,-y,+z+1/2 |
+-----------------------+-----------------+
..................

***********************
space group: 13:b3 {'Hall': ' -P 2ya', 'HM': ' P 1 2/a 1'}
Crystal system: Monoclinic
Setting: b3
+x,+y,+z
-x+1/2,+y,-z
..................
+-----------------------+--------------+
|        Seitz          |    Jones     |
+-----------------------+--------------+
```

```
|    {1|(0.0,0.0,0.0)}   |    +x,+y,+z   |
| {2_0y0|(0.5,0.0,0.0)} | −x+1/2,+y,−z |
|    {−1|(0.0,0.0,0.0)}   |    −x,−y,−z   |
| {m_x0z|(0.5,0.0,0.0)} | +x+1/2,−y,+z |
+────────────────────+─────────────+
```
....

```
**********************
space group: 13:c1 {'Hall': ' −P 2a', 'HM': ' P 1 1 2/a'}
Crystal system: Monoclinic
Setting: c1
+x,+y,+z
−x+1/2,−y,+z
```
....

```
+────────────────────+─────────────+
|         Seitz        |    Jones     |
+────────────────────+─────────────+
|    {1|(0.0,0.0,0.0)}   |    +x,+y,+z   |
| {2_00z|(0.5,0.0,0.0)} | −x+1/2,−y,+z |
|    {−1|(0.0,0.0,0.0)}   |    −x,−y,−z   |
| {m_xy0|(0.5,0.0,0.0)} | +x+1/2,+y,−z |
+────────────────────+─────────────+
```
....

```
**********************
space group: 13:c2 {'Hall': ' −P 2ab', 'HM': ' P 1 1 2/n'}
Crystal system: Monoclinic
Setting: c2
+x,+y,+z
−x+1/2,−y+1/2,+z
```
....

```
+────────────────────+─────────────────+
|         Seitz        |      Jones       |
+────────────────────+─────────────────+
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z     |
| {2_00z|(0.5,0.5,0.0)} | −x+1/2,−y+1/2,+z |
|    {−1|(0.0,0.0,0.0)}   |      −x,−y,−z     |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,−z |
+────────────────────+─────────────────+
```
....

```
**********************
space group: 13:c3 {'Hall': ' −P 2b', 'HM': ' P 1 1 2/b'}
Crystal system: Monoclinic
Setting: c3
+x,+y,+z
−x,−y+1/2,+z
```
....

```
+────────────────────+──────────────+
|         Seitz        |    Jones      |
+────────────────────+──────────────+
|    {1|(0.0,0.0,0.0)}   |    +x,+y,+z    |
| {2_00z|(0.0,0.5,0.0)} | −x,−y+1/2,+z |
|    {−1|(0.0,0.0,0.0)}   |    −x,−y,−z    |
```

```
| {m_xy0|(0.0,0.5,0.0)} | +x,+y+1/2,−z |
+─────────────────────+─────────────+
.................

**********************
space group: 13:a1 {'Hall': ' −P 2xb', 'HM': ' P 2/b 1 1'}
Crystal system: Monoclinic
Setting: a1
+x,+y,+z
+x,−y+1/2,−z
.................
+─────────────────────+─────────────+
|        Seitz        |    Jones    |
+─────────────────────+─────────────+
|    {1|(0.0,0.0,0.0)}    |   +x,+y,+z   |
| {2_x00|(0.0,0.5,0.0)} | +x,−y+1/2,−z |
|   {−1|(0.0,0.0,0.0)}   |   −x,−y,−z   |
| {m_0yz|(0.0,0.5,0.0)} | −x,+y+1/2,+z |
+─────────────────────+─────────────+
.................

**********************
space group: 13:a2 {'Hall': ' −P 2xbc', 'HM': ' P 2/n 1 1'}
Crystal system: Monoclinic
Setting: a2
+x,+y,+z
+x,−y+1/2,−z+1/2
.................
+─────────────────────+────────────────+
|        Seitz        |      Jones      |
+─────────────────────+────────────────+
|    {1|(0.0,0.0,0.0)}    |     +x,+y,+z     |
| {2_x00|(0.0,0.5,0.5)} | +x,−y+1/2,−z+1/2 |
|   {−1|(0.0,0.0,0.0)}   |     −x,−y,−z     |
| {m_0yz|(0.0,0.5,0.5)} | −x,+y+1/2,+z+1/2 |
+─────────────────────+────────────────+
.................

**********************
space group: 13:a3 {'Hall': ' −P 2xc', 'HM': ' P 2/c 1 1'}
Crystal system: Monoclinic
Setting: a3
+x,+y,+z
+x,−y,−z+1/2
.................
+─────────────────────+─────────────+
|        Seitz        |    Jones    |
+─────────────────────+─────────────+
|    {1|(0.0,0.0,0.0)}    |   +x,+y,+z   |
| {2_x00|(0.0,0.0,0.5)} | +x,−y,−z+1/2 |
|   {−1|(0.0,0.0,0.0)}   |   −x,−y,−z   |
| {m_0yz|(0.0,0.0,0.5)} | −x,+y,+z+1/2 |
+─────────────────────+─────────────+
.................
```

```
**********************
space group: 14:b1 {'Hall': '-P 2ybc', 'HM': ' P 1 21/c 1'}
Crystal system: Monoclinic
Setting: b1
+x,+y,+z
-x,+y+1/2,-z+1/2
..................
+---------------------+-----------------+
|         Seitz       |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)}   |    +x,+y,+z      |
| {2_0y0|(0.0,0.5,0.5)} | -x,+y+1/2,-z+1/2 |
|   {-1|(0.0,0.0,0.0)}  |    -x,-y,-z      |
| {m_x0z|(0.0,0.5,0.5)} | +x,-y+1/2,+z+1/2 |
+---------------------+-----------------+

..................

**********************
space group: 14:b2 {'Hall': '-P 2yn', 'HM': ' P 1 21/n 1'}
Crystal system: Monoclinic
Setting: b2
+x,+y,+z
-x+1/2,+y+1/2,-z+1/2
..................
+---------------------+---------------------+
|         Seitz       |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z        |
| {2_0y0|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,-z+1/2 |
|   {-1|(0.0,0.0,0.0)}  |      -x,-y,-z        |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
+---------------------+---------------------+
..................

**********************
space group: 14:b3 {'Hall': '-P 2yab', 'HM': ' P 1 21/a 1'}
Crystal system: Monoclinic
Setting: b3
+x,+y,+z
-x+1/2,+y+1/2,-z
..................
+---------------------+-----------------+
|         Seitz       |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)}   |    +x,+y,+z      |
| {2_0y0|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,-z |
|   {-1|(0.0,0.0,0.0)}  |    -x,-y,-z      |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,+z |
+---------------------+-----------------+

..................

**********************
space group: 14:c1 {'Hall': '-P 2ac', 'HM': ' P 1 1 21/a'}
```

Crystal system: Monoclinic
Setting: c1
+x,+y,+z
−x+1/2,−y,+z+1/2
....
+---------------------+-----------------+
| Seitz | Jones |
+---------------------+-----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0	(0.5,0.0,0.5)}	+x+1/2,+y,−z+1/2
+---------------------+-----------------+
....

****
space group: 14:c2 {'Hall': '−P 2n', 'HM': ' P 1 1 21/n'}
Crystal system: Monoclinic
Setting: c2
+x,+y,+z
−x+1/2,−y+1/2,+z+1/2
....
+---------------------+---------------------+
| Seitz | Jones |
+---------------------+---------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.5,0.5,0.5)}	−x+1/2,−y+1/2,+z+1/2
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0	(0.5,0.5,0.5)}	+x+1/2,+y+1/2,−z+1/2
+---------------------+---------------------+
....

****
space group: 14:c3 {'Hall': '−P 2bc', 'HM': ' P 1 1 21/b'}
Crystal system: Monoclinic
Setting: c3
+x,+y,+z
−x,−y+1/2,+z+1/2
....
+---------------------+-----------------+
| Seitz | Jones |
+---------------------+-----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0	(0.0,0.5,0.5)}	+x,+y+1/2,−z+1/2
+---------------------+-----------------+
....

****
space group: 14:a1 {'Hall': '−P 2xab', 'HM': ' P 21/b 1 1'}
Crystal system: Monoclinic
Setting: a1
+x,+y,+z

+x+1/2,−y+1/2,−z
....
+--------------------+-----------------+
| Seitz | Jones |
+--------------------+-----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_x00	(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{m_0yz	(0.5,0.5,0.0)}	−x+1/2,+y+1/2,+z
+--------------------+-----------------+

....

****
space group: 14:a2 {'Hall': '−P 2xn', 'HM': ' P 21/n 1 1'}
Crystal system: Monoclinic
Setting: a2
+x,+y,+z
+x+1/2,−y+1/2,−z+1/2
....
+--------------------+--------------------+
| Seitz | Jones |
+--------------------+--------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_x00	(0.5,0.5,0.5)}	+x+1/2,−y+1/2,−z+1/2
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{m_0yz	(0.5,0.5,0.5)}	−x+1/2,+y+1/2,+z+1/2
+--------------------+--------------------+

....

****
space group: 14:a3 {'Hall': '−P 2xac', 'HM': ' P 21/c 1 1'}
Crystal system: Monoclinic
Setting: a3
+x,+y,+z
+x+1/2,−y,−z+1/2
....
+--------------------+-----------------+
| Seitz | Jones |
+--------------------+-----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_x00	(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{m_0yz	(0.5,0.0,0.5)}	−x+1/2,+y,+z+1/2
+--------------------+-----------------+

....

****
space group: 15:b1 {'Hall': ' −C 2yc', 'HM': ' C 1 2/c 1'}
Crystal system: Monoclinic
Setting: b1
+x,+y,+z
−x,+y,−z+1/2
....
+--------------------+--------------------+

```
|        Seitz         |        Jones        |
+----------------------+---------------------+
|   {1|(0.0,0.0,0.0)}  |      +x,+y,+z        |
| {2_0y0|(0.0,0.0,0.5)}|    −x,+y,−z+1/2      |
|   {−1|(0.0,0.0,0.0)} |      −x,−y,−z        |
| {m_x0z|(0.0,0.0,0.5)}|    +x,−y,+z+1/2      |
|   {1|(0.5,0.5,0.0)}  |   +x+1/2,+y+1/2,+z   |
| {2_0y0|(0.5,0.5,0.5)}| −x+1/2,+y+1/2,−z+1/2 |
|  {−1|(0.5,0.5,0.0)}  |   −x+1/2,−y+1/2,−z   |
| {m_x0z|(0.5,0.5,0.5)}| +x+1/2,−y+1/2,+z+1/2 |
+----------------------+---------------------+
```
....

```
**********************
space group: 15:b2 {'Hall': ' −A 2yac', 'HM': ' A 1 2/n 1'}
Crystal system: Monoclinic
Setting: b2
+x,+y,+z
−x+1/2,+y,−z+1/2
```
....

```
+----------------------+-------------------+
|        Seitz         |       Jones       |
+----------------------+-------------------+
|   {1|(0.0,0.0,0.0)}  |     +x,+y,+z      |
| {2_0y0|(0.5,0.0,0.5)}|   −x+1/2,+y,−z+1/2|
|   {−1|(0.0,0.0,0.0)} |     −x,−y,−z      |
| {m_x0z|(0.5,0.0,0.5)}|   +x+1/2,−y,+z+1/2|
|   {1|(0.0,0.5,0.5)}  |   +x,+y+1/2,+z+1/2|
| {2_0y0|(0.5,0.5,0.0)}|   −x+1/2,+y+1/2,−z|
|  {−1|(0.0,0.5,0.5)}  |   −x,−y+1/2,−z+1/2|
| {m_x0z|(0.5,0.5,0.0)}|   +x+1/2,−y+1/2,+z|
+----------------------+-------------------+
```
....

```
**********************
space group: 15:b3 {'Hall': ' −I 2ya', 'HM': ' I 1 2/a 1'}
Crystal system: Monoclinic
Setting: b3
+x,+y,+z
−x+1/2,+y,−z
```
....

```
+----------------------+---------------------+
|        Seitz         |        Jones        |
+----------------------+---------------------+
|   {1|(0.0,0.0,0.0)}  |      +x,+y,+z        |
| {2_0y0|(0.5,0.0,0.0)}|    −x+1/2,+y,−z      |
|   {−1|(0.0,0.0,0.0)} |      −x,−y,−z        |
| {m_x0z|(0.5,0.0,0.0)}|    +x+1/2,−y,+z      |
|   {1|(0.5,0.5,0.5)}  | +x+1/2,+y+1/2,+z+1/2 |
| {2_0y0|(0.0,0.5,0.5)}|    −x,+y+1/2,−z+1/2  |
|  {−1|(0.5,0.5,0.5)}  | −x+1/2,−y+1/2,−z+1/2 |
| {m_x0z|(0.0,0.5,0.5)}|    +x,−y+1/2,+z+1/2  |
+----------------------+---------------------+
```
....

```
**********************
space group: 15:-b1 {'Hall': ' -A 2ya', 'HM': 'A 1 2/a 1'}
Crystal system: Monoclinic
Setting: -b1
+x,+y,+z
-x+1/2,+y,-z

..................
+---------------------+--------------------+
|        Seitz        |        Jones       |
+---------------------+--------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z       |
| {2_0y0|(0.5,0.0,0.0)} |    -x+1/2,+y,-z     |
|   {-1|(0.0,0.0,0.0)} |      -x,-y,-z       |
| {m_x0z|(0.5,0.0,0.0)} |    +x+1/2,-y,+z     |
|    {1|(0.0,0.5,0.5)} |   +x,+y+1/2,+z+1/2  |
| {2_0y0|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,-z+1/2 |
|   {-1|(0.0,0.5,0.5)} |   -x,-y+1/2,-z+1/2  |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
+---------------------+--------------------+
..................


**********************
space group: 15:-b2 {'Hall': ' -C 2ybc', 'HM': 'C 1 2/n 1'}
Crystal system: Monoclinic
Setting: -b2
+x,+y,+z
-x,+y+1/2,-z+1/2

..................
+---------------------+------------------+
|        Seitz        |       Jones      |
+---------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z      |
| {2_0y0|(0.0,0.5,0.5)} | -x,+y+1/2,-z+1/2 |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z      |
| {m_x0z|(0.0,0.5,0.5)} | +x,-y+1/2,+z+1/2 |
|    {1|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,+z |
| {2_0y0|(0.5,0.0,0.5)} |  -x+1/2,+y,-z+1/2 |
|   {-1|(0.5,0.5,0.0)} |  -x+1/2,-y+1/2,-z |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,-y,+z+1/2 |
+---------------------+------------------+
..................


**********************
space group: 15:-b3 {'Hall': ' -I 2yc', 'HM': 'I 1 2/c 1'}
Crystal system: Monoclinic
Setting: -b3
+x,+y,+z
-x,+y,-z+1/2

..................
+---------------------+--------------------+
|        Seitz        |        Jones       |
+---------------------+--------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z       |
```

```
| {2_0y0|(0.0,0.0,0.5)} |    −x,+y,−z+1/2     |
|   {−1|(0.0,0.0,0.0)}  |     −x,−y,−z        |
| {m_x0z|(0.0,0.0,0.5)} |    +x,−y,+z+1/2     |
|   {1|(0.5,0.5,0.5)}   | +x+1/2,+y+1/2,+z+1/2 |
| {2_0y0|(0.5,0.5,0.0)} |   −x+1/2,+y+1/2,−z   |
|   {−1|(0.5,0.5,0.5)}  | −x+1/2,−y+1/2,−z+1/2 |
| {m_x0z|(0.5,0.5,0.0)} |   +x+1/2,−y+1/2,+z   |
+───────────────────────+─────────────────────+
```

....

```
**********************
space group: 15:c1 {'Hall': ' −A 2a', 'HM': ' A 1 1 2/a'}
Crystal system: Monoclinic
Setting: c1
+x,+y,+z
−x+1/2,−y,+z
```

....

```
+─────────────────────+─────────────────────+
|        Seitz        |        Jones        |
+─────────────────────+─────────────────────+
|   {1|(0.0,0.0,0.0)}  |      +x,+y,+z        |
| {2_00z|(0.5,0.0,0.0)} |    −x+1/2,−y,+z      |
|   {−1|(0.0,0.0,0.0)}  |     −x,−y,−z         |
| {m_xy0|(0.5,0.0,0.0)} |    +x+1/2,+y,−z      |
|   {1|(0.0,0.5,0.5)}   |   +x,+y+1/2,+z+1/2   |
| {2_00z|(0.5,0.5,0.5)} | −x+1/2,−y+1/2,+z+1/2 |
|   {−1|(0.0,0.5,0.5)}  |   −x,−y+1/2,−z+1/2   |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,−z+1/2 |
+─────────────────────+─────────────────────+
```

....

```
**********************
space group: 15:c2 {'Hall': ' −B 2bc', 'HM': ' B 1 1 2/n'}
Crystal system: Monoclinic
Setting: c2
+x,+y,+z
−x,−y+1/2,+z+1/2
```

....

```
+─────────────────────+─────────────────+
|        Seitz        |      Jones      |
+─────────────────────+─────────────────+
|   {1|(0.0,0.0,0.0)}  |    +x,+y,+z      |
| {2_00z|(0.0,0.5,0.5)} | −x,−y+1/2,+z+1/2 |
|   {−1|(0.0,0.0,0.0)}  |    −x,−y,−z       |
| {m_xy0|(0.0,0.5,0.5)} | +x,+y+1/2,−z+1/2 |
|   {1|(0.5,0.0,0.5)}   | +x+1/2,+y,+z+1/2 |
| {2_00z|(0.5,0.5,0.0)} | −x+1/2,−y+1/2,+z  |
|   {−1|(0.5,0.0,0.5)}  | −x+1/2,−y,−z+1/2  |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,−z  |
+─────────────────────+─────────────────+
```

....

```
**********************
space group: 15:c3 {'Hall': ' −I 2b', 'HM': ' I 1 1 2/b'}
```

Crystal system: Monoclinic
Setting: c3
+x,+y,+z
−x,−y+1/2,+z
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.5,0.0)}	−x,−y+1/2,+z
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0|(0.0,0.5,0.0)}	+x,+y+1/2,−z
{1|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2
{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{−1|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,−z+1/2
{m_xy0|(0.5,0.0,0.5)}	+x+1/2,+y,−z+1/2

....

****
space group: 15:−c1 {'Hall': ' −B 2b', 'HM': 'B 1 1 2/b'}
Crystal system: Monoclinic
Setting: −c1
+x,+y,+z
−x,−y+1/2,+z
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.5,0.0)}	−x,−y+1/2,+z
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0|(0.0,0.5,0.0)}	+x,+y+1/2,−z
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{2_00z|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,+z+1/2
{−1|(0.5,0.0,0.5)}	−x+1/2,−y,−z+1/2
{m_xy0|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,−z+1/2

....

****
space group: 15:−c2 {'Hall': ' −A 2ac', 'HM': 'A 1 1 2/n'}
Crystal system: Monoclinic
Setting: −c2
+x,+y,+z
−x+1/2,−y,+z+1/2
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0|(0.5,0.0,0.5)}	+x+1/2,+y,−z+1/2

```
|    {1|(0.0,0.5,0.5)}    | +x,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.5,0.0)} | −x+1/2,−y+1/2,+z  |
|   {−1|(0.0,0.5,0.5)}    | −x,−y+1/2,−z+1/2 |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,−z |
+----------------------+------------------+
```

....

```
**********************
space group: 15:−c3 {'Hall': ' −I 2a', 'HM': 'I 1 1 2/a'}
Crystal system: Monoclinic
Setting: −c3
+x,+y,+z
−x+1/2,−y,+z
```

....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.5,0.0,0.0)}	−x+1/2,−y,+z
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0|(0.5,0.0,0.0)}	+x+1/2,+y,−z
{1|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2
{2_00z|(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2
{−1|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,−z+1/2
{m_xy0|(0.0,0.5,0.5)}	+x,+y+1/2,−z+1/2

....

```
**********************
space group: 15:a1 {'Hall': ' −B 2xb', 'HM': ' B 2/b 1 1'}
Crystal system: Monoclinic
Setting: a1
+x,+y,+z
+x,−y+1/2,−z
```

....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_x00|(0.0,0.5,0.0)}	+x,−y+1/2,−z
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{m_0yz|(0.0,0.5,0.0)}	−x,+y+1/2,+z
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{2_x00|(0.5,0.5,0.5)}	+x+1/2,−y+1/2,−z+1/2
{−1|(0.5,0.0,0.5)}	−x+1/2,−y,−z+1/2
{m_0yz|(0.5,0.5,0.5)}	−x+1/2,+y+1/2,+z+1/2

....

```
**********************
space group: 15:a2 {'Hall': ' −C 2xbc', 'HM': ' C 2/n 1 1'}
Crystal system: Monoclinic
Setting: a2
+x,+y,+z
```

+x,−y+1/2,−z+1/2

....

```
+--------------------+------------------+
|       Seitz        |      Jones       |
+--------------------+------------------+
|   {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_x00|(0.0,0.5,0.5)} |  +x,−y+1/2,−z+1/2 |
|   {−1|(0.0,0.0,0.0)} |     −x,−y,−z     |
| {m_0yz|(0.0,0.5,0.5)} |  −x,+y+1/2,+z+1/2 |
|   {1|(0.5,0.5,0.0)} |  +x+1/2,+y+1/2,+z |
| {2_x00|(0.5,0.0,0.5)} |  +x+1/2,−y,−z+1/2 |
|   {−1|(0.5,0.5,0.0)} |  −x+1/2,−y+1/2,−z |
| {m_0yz|(0.5,0.0,0.5)} |  −x+1/2,+y,+z+1/2 |
+--------------------+------------------+
```

....

```
***********************
space group: 15:a3 {'Hall': ' −I 2xc', 'HM': ' I 2/c 1 1'}
Crystal system: Monoclinic
Setting: a3
+x,+y,+z
+x,−y,−z+1/2
```

....

```
+--------------------+--------------------+
|       Seitz        |       Jones        |
+--------------------+--------------------+
|   {1|(0.0,0.0,0.0)} |      +x,+y,+z      |
| {2_x00|(0.0,0.0,0.5)} |     +x,−y,−z+1/2    |
|   {−1|(0.0,0.0,0.0)} |      −x,−y,−z      |
| {m_0yz|(0.0,0.0,0.5)} |     −x,+y,+z+1/2    |
|   {1|(0.5,0.5,0.5)} |  +x+1/2,+y+1/2,+z+1/2 |
| {2_x00|(0.5,0.5,0.0)} |   +x+1/2,−y+1/2,−z   |
|   {−1|(0.5,0.5,0.5)} | −x+1/2,−y+1/2,−z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} |   −x+1/2,+y+1/2,+z   |
+--------------------+--------------------+
```

....

```
***********************
space group: 15:−a1 {'Hall': ' −C 2xc', 'HM': 'C 2/c 1 1'}
Crystal system: Monoclinic
Setting: −a1
+x,+y,+z
+x,−y,−z+1/2
```

....

```
+--------------------+--------------------+
|       Seitz        |       Jones        |
+--------------------+--------------------+
|   {1|(0.0,0.0,0.0)} |      +x,+y,+z      |
| {2_x00|(0.0,0.0,0.5)} |     +x,−y,−z+1/2    |
|   {−1|(0.0,0.0,0.0)} |      −x,−y,−z      |
| {m_0yz|(0.0,0.0,0.5)} |     −x,+y,+z+1/2    |
|   {1|(0.5,0.5,0.0)} |   +x+1/2,+y+1/2,+z   |
| {2_x00|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,−z+1/2 |
|   {−1|(0.5,0.5,0.0)} |   −x+1/2,−y+1/2,−z   |
```

```
| {m_0yz|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,+z+1/2 |
+─────────────────────+────────────────────+
```
....

```
**********************
space group: 15:−a2 {'Hall': ' −B 2xbc', 'HM': 'B 2/n 1 1'}
Crystal system: Monoclinic
Setting: −a2
+x,+y,+z
+x,−y+1/2,−z+1/2
```
....

```
+─────────────────────+─────────────────+
|        Seitz        |      Jones      |
+─────────────────────+─────────────────+
|    {1|(0.0,0.0,0.0)}  |     +x,+y,+z     |
| {2_x00|(0.0,0.5,0.5)} | +x,−y+1/2,−z+1/2 |
|   {−1|(0.0,0.0,0.0)}  |     −x,−y,−z     |
| {m_0yz|(0.0,0.5,0.5)} | −x,+y+1/2,+z+1/2 |
|    {1|(0.5,0.0,0.5)}  | +x+1/2,+y,+z+1/2 |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,−z |
|   {−1|(0.5,0.0,0.5)}  | −x+1/2,−y,−z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,+z |
+─────────────────────+─────────────────+
```
....

```
**********************
space group: 15:−a3 {'Hall': ' −I 2xb', 'HM': 'I 2/b 1 1'}
Crystal system: Monoclinic
Setting: −a3
+x,+y,+z
+x,−y+1/2,−z
```
....

```
+─────────────────────+────────────────────+
|        Seitz        |       Jones        |
+─────────────────────+────────────────────+
|    {1|(0.0,0.0,0.0)}  |      +x,+y,+z       |
| {2_x00|(0.0,0.5,0.0)} |    +x,−y+1/2,−z     |
|   {−1|(0.0,0.0,0.0)}  |      −x,−y,−z       |
| {m_0yz|(0.0,0.5,0.0)} |    −x,+y+1/2,+z     |
|    {1|(0.5,0.5,0.5)}  | +x+1/2,+y+1/2,+z+1/2 |
| {2_x00|(0.5,0.0,0.5)} |   +x+1/2,−y,−z+1/2   |
|   {−1|(0.5,0.5,0.5)}  | −x+1/2,−y+1/2,−z+1/2 |
| {m_0yz|(0.5,0.0,0.5)} |   −x+1/2,+y,+z+1/2   |
+─────────────────────+────────────────────+
```
....

```
**********************
space group: 16 {'Hall': 'P 2 2', 'HM': 'P 2 2 2'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
+x,−y,−z
```
....

```
+─────────────────────+──────────+
```

```
|        Seitz        |  Jones  |
+---------------------+---------+
|    {1|(0.0,0.0,0.0)}     | +x,+y,+z |
| {2_00z|(0.0,0.0,0.0)} | -x,-y,+z |
| {2_x00|(0.0,0.0,0.0)} | +x,-y,-z |
| {2_0y0|(0.0,0.0,0.0)} | -x,+y,-z |
+---------------------+---------+
```

....

```
**********************
space group: 17 {'Hall': ' P 2c 2', 'HM': 'P 2 2 21'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z+1/2
+x,-y,-z
```

....

```
+---------------------+-------------+
|        Seitz        |    Jones    |
+---------------------+-------------+
|    {1|(0.0,0.0,0.0)}     |   +x,+y,+z   |
| {2_00z|(0.0,0.0,0.5)} | -x,-y,+z+1/2 |
| {2_x00|(0.0,0.0,0.0)} |   +x,-y,-z   |
| {2_0y0|(0.0,0.0,0.5)} | -x,+y,-z+1/2 |
+---------------------+-------------+
```

....

```
**********************
space group: 17:cab {'Hall': ' P 2a 2a', 'HM': 'P 21 2 2'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
-x+1/2,-y,+z
+x+1/2,-y,-z
```

....

```
+---------------------+-------------+
|        Seitz        |    Jones    |
+---------------------+-------------+
|    {1|(0.0,0.0,0.0)}     |   +x,+y,+z   |
| {2_00z|(0.5,0.0,0.0)} | -x+1/2,-y,+z |
| {2_x00|(0.5,0.0,0.0)} | +x+1/2,-y,-z |
| {2_0y0|(0.0,0.0,0.0)} |   -x,+y,-z   |
+---------------------+-------------+
```

....

```
**********************
space group: 17:bca {'Hall': ' P 2 2b', 'HM': 'P 2 21 2'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
-x,-y,+z
+x,-y+1/2,-z
```

....

```
+---------------------+-------------+
|        Seitz        |    Jones     |
```

```
+---------------------+---------------+
|    {1|(0.0,0.0,0.0)}    |    +x,+y,+z    |
| {2_00z|(0.0,0.0,0.0)} |   -x,-y,+z    |
| {2_x00|(0.0,0.5,0.0)} | +x,-y+1/2,-z |
| {2_0y0|(0.0,0.5,0.0)} | -x,+y+1/2,-z |
+---------------------+---------------+
```
....

****
space group: 18 {'Hall': 'P 2 2ab', 'HM': 'P 21 21 2'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
+x+1/2,-y+1/2,-z

....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z      |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,-z |
| {2_0y0|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,-z |
+---------------------+-----------------+
```
....

****
space group: 18:cab {'Hall': 'P 2bc 2', 'HM': 'P 2 21 21'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
-x,-y+1/2,+z+1/2
+x,-y,-z

....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z      |
| {2_00z|(0.0,0.5,0.5)} | -x,-y+1/2,+z+1/2 |
| {2_x00|(0.0,0.0,0.0)} |      +x,-y,-z      |
| {2_0y0|(0.0,0.5,0.5)} | -x,+y+1/2,-z+1/2 |
+---------------------+-----------------+
```
....

****
space group: 18:bca {'Hall': 'P 2ac 2ac', 'HM': 'P 21 2 21'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
-x+1/2,-y,+z+1/2
+x+1/2,-y,-z+1/2

....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
```

```
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z      |
| {2_00z|(0.5,0.0,0.5)} | −x+1/2,−y,+z+1/2 |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,−y,−z+1/2 |
| {2_0y0|(0.0,0.0,0.0)} |      −x,+y,−z      |
+---------------------+-----------------+
```
....

```
**********************
space group: 19 {'Hall': ' P 2ac 2ab', 'HM': 'P 21 21 21'}
Crystal system: Orthorhombic
+x,+y,+z
−x+1/2,−y,+z+1/2
+x+1/2,−y+1/2,−z
```
....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z      |
| {2_00z|(0.5,0.0,0.5)} | −x+1/2,−y,+z+1/2 |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,−z |
| {2_0y0|(0.0,0.5,0.5)} | −x,+y+1/2,−z+1/2 |
+---------------------+-----------------+
```
....

```
**********************
space group: 20 {'Hall': ' C 2c 2', 'HM': 'C 2 2 21'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z+1/2
+x,−y,−z
```
....

```
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)}    |       +x,+y,+z       |
| {2_00z|(0.0,0.0,0.5)} |      −x,−y,+z+1/2      |
| {2_x00|(0.0,0.0,0.0)} |       +x,−y,−z       |
| {2_0y0|(0.0,0.0,0.5)} |      −x,+y,−z+1/2      |
|    {1|(0.5,0.5,0.0)}    |     +x+1/2,+y+1/2,+z     |
| {2_00z|(0.5,0.5,0.5)} | −x+1/2,−y+1/2,+z+1/2 |
| {2_x00|(0.5,0.5,0.0)} |    +x+1/2,−y+1/2,−z    |
| {2_0y0|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,−z+1/2 |
+---------------------+---------------------+
```
....

```
**********************
space group: 20:cab {'Hall': ' A 2a 2a', 'HM': 'A 21 2 2'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x+1/2,−y,+z
+x+1/2,−y,−z
```
....

```
+---------------------+---------------------+
```

```
|        Seitz           |        Jones          |
+------------------------+-----------------------+
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z         |
| {2_00z|(0.5,0.0,0.0)}  |    -x+1/2,-y,+z       |
| {2_x00|(0.5,0.0,0.0)}  |    +x+1/2,-y,-z       |
| {2_0y0|(0.0,0.0,0.0)}  |      -x,+y,-z         |
|    {1|(0.0,0.5,0.5)}   |   +x,+y+1/2,+z+1/2    |
| {2_00z|(0.5,0.5,0.5)}  | -x+1/2,-y+1/2,+z+1/2  |
| {2_x00|(0.5,0.5,0.5)}  | +x+1/2,-y+1/2,-z+1/2  |
| {2_0y0|(0.0,0.5,0.5)}  |   -x,+y+1/2,-z+1/2    |
+------------------------+-----------------------+
.................

*********************
space group: 20:bca {'Hall': ' B 2 2b', 'HM': 'B 2 21 2'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
-x,-y,+z
+x,-y+1/2,-z
.................
+------------------------+-----------------------+
|        Seitz           |        Jones          |
+------------------------+-----------------------+
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z         |
| {2_00z|(0.0,0.0,0.0)}  |      -x,-y,+z         |
| {2_x00|(0.0,0.5,0.0)}  |    +x,-y+1/2,-z       |
| {2_0y0|(0.0,0.5,0.0)}  |    -x,+y+1/2,-z       |
|    {1|(0.5,0.0,0.5)}   |   +x+1/2,+y,+z+1/2    |
| {2_00z|(0.5,0.0,0.5)}  |   -x+1/2,-y,+z+1/2    |
| {2_x00|(0.5,0.5,0.5)}  | +x+1/2,-y+1/2,-z+1/2  |
| {2_0y0|(0.5,0.5,0.5)}  | -x+1/2,+y+1/2,-z+1/2  |
+------------------------+-----------------------+
.................

*********************
space group: 21 {'Hall': 'C 2 2', 'HM': 'C 2 2 2'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
+x,-y,-z
.................
+------------------------+-------------------+
|        Seitz           |       Jones       |
+------------------------+-------------------+
|    {1|(0.0,0.0,0.0)}   |     +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)}  |     -x,-y,+z      |
| {2_x00|(0.0,0.0,0.0)}  |     +x,-y,-z      |
| {2_0y0|(0.0,0.0,0.0)}  |     -x,+y,-z      |
|    {1|(0.5,0.5,0.0)}   |  +x+1/2,+y+1/2,+z |
| {2_00z|(0.5,0.5,0.0)}  |  -x+1/2,-y+1/2,+z |
| {2_x00|(0.5,0.5,0.0)}  |  +x+1/2,-y+1/2,-z |
| {2_0y0|(0.5,0.5,0.0)}  |  -x+1/2,+y+1/2,-z |
+------------------------+-------------------+
```

....

****
space group: 21:cab {'Hall': 'A 2 2', 'HM': 'A 2 2 2'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x,−y,+z
+x,−y,−z

....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{2_00z|(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2
{2_x00|(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2

....

****
space group: 21:bca {'Hall': 'B 2 2', 'HM': 'B 2 2 2'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
−x,−y,+z
+x,−y,−z

....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{2_x00|(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{2_0y0|(0.5,0.0,0.5)}	−x+1/2,+y,−z+1/2

....

****
space group: 22 {'Hall': 'F 2 2', 'HM': 'F 2 2 2'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
+x,−y,−z

....

+----------------------+------------------+

```
|        Seitz          |      Jones       |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)}  |    +x,+y,+z       |
| {2_00z|(0.0,0.0,0.0)} |    -x,-y,+z       |
| {2_x00|(0.0,0.0,0.0)} |    +x,-y,-z       |
| {2_0y0|(0.0,0.0,0.0)} |    -x,+y,-z       |
|    {1|(0.0,0.5,0.5)}  | +x,+y+1/2,+z+1/2 |
| {2_00z|(0.0,0.5,0.5)} | -x,-y+1/2,+z+1/2 |
| {2_x00|(0.0,0.5,0.5)} | +x,-y+1/2,-z+1/2 |
| {2_0y0|(0.0,0.5,0.5)} | -x,+y+1/2,-z+1/2 |
|    {1|(0.5,0.0,0.5)}  | +x+1/2,+y,+z+1/2 |
| {2_00z|(0.5,0.0,0.5)} | -x+1/2,-y,+z+1/2 |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,-y,-z+1/2 |
| {2_0y0|(0.5,0.0,0.5)} | -x+1/2,+y,-z+1/2 |
|    {1|(0.5,0.5,0.0)}  | +x+1/2,+y+1/2,+z |
| {2_00z|(0.5,0.5,0.0)} | -x+1/2,-y+1/2,+z |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,-z |
| {2_0y0|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,-z |
+----------------------+------------------+
..................

**********************
space group: 23 {'Hall': 'I 2 2', 'HM': 'I 2 2 2'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
+x,-y,-z
..................
+----------------------+----------------------+
|        Seitz          |       Jones          |
+----------------------+----------------------+
|    {1|(0.0,0.0,0.0)}  |      +x,+y,+z         |
| {2_00z|(0.0,0.0,0.0)} |      -x,-y,+z         |
| {2_x00|(0.0,0.0,0.0)} |      +x,-y,-z         |
| {2_0y0|(0.0,0.0,0.0)} |      -x,+y,-z         |
|    {1|(0.5,0.5,0.5)}  | +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,+z+1/2 |
| {2_x00|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,-z+1/2 |
| {2_0y0|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,-z+1/2 |
+----------------------+----------------------+
..................

**********************
space group: 24 {'Hall': ' I 2b 2c', 'HM': 'I 21 21 21'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y+1/2,+z
+x,-y,-z+1/2
..................
+----------------------+----------------------+
|        Seitz          |       Jones          |
+----------------------+----------------------+
|    {1|(0.0,0.0,0.0)}  |      +x,+y,+z         |
| {2_00z|(0.0,0.5,0.0)} |    -x,-y+1/2,+z       |
```

```
| {2_x00|(0.0,0.0,0.5)} |    +x,−y,−z+1/2     |
| {2_0y0|(0.0,0.5,0.5)} |   −x,+y+1/2,−z+1/2  |
|    {1|(0.5,0.5,0.5)}  | +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.0,0.5)} |   −x+1/2,−y,+z+1/2  |
| {2_x00|(0.5,0.5,0.0)} |   +x+1/2,−y+1/2,−z  |
| {2_0y0|(0.5,0.0,0.0)} |    −x+1/2,+y,−z     |
+----------------------+---------------------+
```

....

```
**********************
space group: 25 {'Hall': 'P 2 −2', 'HM': 'P m m 2'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
−x,+y,+z
```

....

```
+----------------------+----------+
|         Seitz        |  Jones   |
+----------------------+----------+
|    {1|(0.0,0.0,0.0)} | +x,+y,+z |
| {2_00z|(0.0,0.0,0.0)} | −x,−y,+z |
| {m_0yz|(0.0,0.0,0.0)} | −x,+y,+z |
| {m_x0z|(0.0,0.0,0.0)} | +x,−y,+z |
+----------------------+----------+
```

....

```
**********************
space group: 25:cab {'Hall': 'P −2 2', 'HM': 'P 2 m m'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y,−z
+x,−y,−z
```

....

```
+----------------------+----------+
|         Seitz        |  Jones   |
+----------------------+----------+
|    {1|(0.0,0.0,0.0)} | +x,+y,+z |
| {m_xy0|(0.0,0.0,0.0)} | +x,+y,−z |
| {2_x00|(0.0,0.0,0.0)} | +x,−y,−z |
| {m_x0z|(0.0,0.0,0.0)} | +x,−y,+z |
+----------------------+----------+
```

....

```
**********************
space group: 25:bca {'Hall': 'P −2 −2', 'HM': 'P m 2 m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y,−z
−x,+y,+z
```

....

```
+----------------------+----------+
|         Seitz        |  Jones   |
```

```
+---------------------+----------+
|    {1|(0.0,0.0,0.0)}    | +x,+y,+z |
| {m_xy0|(0.0,0.0,0.0)} | +x,+y,-z |
| {m_0yz|(0.0,0.0,0.0)} | -x,+y,+z |
| {2_0y0|(0.0,0.0,0.0)} | -x,+y,-z |
+---------------------+----------+
..................

**********************
space group: 26 {'Hall': ' P 2c -2', 'HM': 'P m c 21'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z+1/2
-x,+y,+z
..................
+---------------------+-------------+
|        Seitz        |    Jones    |
+---------------------+-------------+
|    {1|(0.0,0.0,0.0)}    |   +x,+y,+z   |
| {2_00z|(0.0,0.0,0.5)} | -x,-y,+z+1/2 |
| {m_0yz|(0.0,0.0,0.0)} |   -x,+y,+z   |
| {m_x0z|(0.0,0.0,0.5)} | +x,-y,+z+1/2 |
+---------------------+-------------+
..................

**********************
space group: 26:ba-c {'Hall': ' P 2c -2c', 'HM': ' P c m 21'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y,+z+1/2
-x,+y,+z+1/2
..................
+---------------------+-------------+
|        Seitz        |    Jones    |
+---------------------+-------------+
|    {1|(0.0,0.0,0.0)}    |   +x,+y,+z   |
| {2_00z|(0.0,0.0,0.5)} | -x,-y,+z+1/2 |
| {m_0yz|(0.0,0.0,0.5)} | -x,+y,+z+1/2 |
| {m_x0z|(0.0,0.0,0.0)} |   +x,-y,+z   |
+---------------------+-------------+
..................

**********************
space group: 26:cab {'Hall': ' P -2a 2a', 'HM': 'P 21 m a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x+1/2,+y,-z
+x+1/2,-y,-z
..................
+---------------------+--------------+
|        Seitz        |    Jones     |
+---------------------+--------------+
```

```
|    {1|(0.0,0.0,0.0)}   |    +x,+y,+z    |
| {m_xy0|(0.5,0.0,0.0)}  | +x+1/2,+y,−z  |
| {2_x00|(0.5,0.0,0.0)}  | +x+1/2,−y,−z  |
| {m_x0z|(0.0,0.0,0.0)}  |    +x,−y,+z    |
+───────────────────────+───────────────+
```

....

```
***********************
space group: 26:−cba {'Hall': ' P −2 2a', 'HM': ' P 21 a m'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
+x,+y,−z
+x+1/2,−y,−z
```

....

```
+───────────────────────+───────────────+
|         Seitz         |     Jones     |
+───────────────────────+───────────────+
|    {1|(0.0,0.0,0.0)}   |    +x,+y,+z    |
| {m_xy0|(0.0,0.0,0.0)}  |    +x,+y,−z    |
| {2_x00|(0.5,0.0,0.0)}  | +x+1/2,−y,−z  |
| {m_x0z|(0.5,0.0,0.0)}  | +x+1/2,−y,+z  |
+───────────────────────+───────────────+
```

....

```
***********************
space group: 26:bca {'Hall': ' P −2 −2b', 'HM': 'P b 21 m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y,−z
−x,+y+1/2,+z
```

....

```
+───────────────────────+───────────────+
|         Seitz         |     Jones     |
+───────────────────────+───────────────+
|    {1|(0.0,0.0,0.0)}   |    +x,+y,+z    |
| {m_xy0|(0.0,0.0,0.0)}  |    +x,+y,−z    |
| {m_0yz|(0.0,0.5,0.0)}  | −x,+y+1/2,+z  |
| {2_0y0|(0.0,0.5,0.0)}  | −x,+y+1/2,−z  |
+───────────────────────+───────────────+
```

....

```
***********************
space group: 26:a−cb {'Hall': ' P −2b −2', 'HM': ' P m 21 b'}
Crystal system: Orthorhombic
Setting: a−cb
+x,+y,+z
+x,+y+1/2,−z
−x,+y,+z
```

....

```
+───────────────────────+───────────────+
|         Seitz         |     Jones     |
+───────────────────────+───────────────+
```

```
|    {1|(0.0,0.0,0.0)}    |    +x,+y,+z     |
| {m_xy0|(0.0,0.5,0.0)} | +x,+y+1/2,-z |
| {m_0yz|(0.0,0.0,0.0)} |   -x,+y,+z    |
| {2_0y0|(0.0,0.5,0.0)} | -x,+y+1/2,-z |
+---------------------+-------------+
.................

*********************
space group: 27 {'Hall': 'P 2 -2c', 'HM': 'P c c 2'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
-x,+y,+z+1/2
.................
+---------------------+-------------+
|        Seitz        |    Jones    |
+---------------------+-------------+
|    {1|(0.0,0.0,0.0)}    |    +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |   -x,-y,+z    |
| {m_0yz|(0.0,0.0,0.5)} | -x,+y,+z+1/2 |
| {m_x0z|(0.0,0.0,0.5)} | +x,-y,+z+1/2 |
+---------------------+-------------+
.................

*********************
space group: 27:cab {'Hall': 'P -2a 2', 'HM': 'P 2 a a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x+1/2,+y,-z
+x,-y,-z
.................
+---------------------+--------------+
|        Seitz        |    Jones     |
+---------------------+--------------+
|    {1|(0.0,0.0,0.0)}    |    +x,+y,+z     |
| {m_xy0|(0.5,0.0,0.0)} | +x+1/2,+y,-z |
| {2_x00|(0.0,0.0,0.0)} |   +x,-y,-z    |
| {m_x0z|(0.5,0.0,0.0)} | +x+1/2,-y,+z |
+---------------------+--------------+
.................

*********************
space group: 27:bca {'Hall': 'P -2b -2b', 'HM': 'P b 2 b'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y+1/2,-z
-x,+y+1/2,+z
.................
+---------------------+--------------+
|        Seitz        |    Jones     |
+---------------------+--------------+
|    {1|(0.0,0.0,0.0)}    |    +x,+y,+z     |
```

```
| {m_xy0|(0.0,0.5,0.0)} | +x,+y+1/2,−z |
| {m_0yz|(0.0,0.5,0.0)} | −x,+y+1/2,+z |
| {2_0y0|(0.0,0.0,0.0)} |   −x,+y,−z   |
+──────────────────────+─────────────+
```
....

```
**********************
space group: 28 {'Hall': 'P 2 −2a', 'HM': 'P m a 2'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
−x+1/2,+y,+z
```
....
```
+──────────────────────+─────────────+
|         Seitz        |    Jones    |
+──────────────────────+─────────────+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z  |
| {2_00z|(0.0,0.0,0.0)} |   −x,−y,+z  |
| {m_0yz|(0.5,0.0,0.0)} | −x+1/2,+y,+z |
| {m_x0z|(0.5,0.0,0.0)} | +x+1/2,−y,+z |
+──────────────────────+─────────────+
```
....

```
**********************
space group: 28:ba−c {'Hall': 'P 2 −2b', 'HM': ' P b m 2'}
Crystal system: Orthorhombic
Setting: ba−c
+x,+y,+z
−x,−y,+z
−x,+y+1/2,+z
```
....
```
+──────────────────────+─────────────+
|         Seitz        |    Jones    |
+──────────────────────+─────────────+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z  |
| {2_00z|(0.0,0.0,0.0)} |   −x,−y,+z  |
| {m_0yz|(0.0,0.5,0.0)} | −x,+y+1/2,+z |
| {m_x0z|(0.0,0.5,0.0)} | +x,−y+1/2,+z |
+──────────────────────+─────────────+
```
....

```
**********************
space group: 28:cab {'Hall': 'P −2b 2', 'HM': 'P 2 m b'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y+1/2,−z
+x,−y,−z
```
....
```
+──────────────────────+─────────────+
|         Seitz        |    Jones    |
+──────────────────────+─────────────+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z  |
| {m_xy0|(0.0,0.5,0.0)} | +x,+y+1/2,−z |
```

```
| {2_x00|(0.0,0.0,0.0)} |   +x,−y,−z   |
| {m_x0z|(0.0,0.5,0.0)} | +x,−y+1/2,+z |
+──────────────────────+─────────────+
.................

**********************
space group: 28:−cba {'Hall': 'P −2c 2', 'HM': ' P 2 c m'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
+x,+y,−z+1/2
+x,−y,−z
.................
+──────────────────────+─────────────+
|         Seitz        |     Jones   |
+──────────────────────+─────────────+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z   |
| {m_xy0|(0.0,0.0,0.5)} | +x,+y,−z+1/2 |
| {2_x00|(0.0,0.0,0.0)} |   +x,−y,−z   |
| {m_x0z|(0.0,0.0,0.5)} | +x,−y,+z+1/2 |
+──────────────────────+─────────────+
.................

**********************
space group: 28:bca {'Hall': 'P −2c −2c', 'HM': 'P c 2 m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y,−z+1/2
−x,+y,+z+1/2
.................
+──────────────────────+─────────────+
|         Seitz        |     Jones   |
+──────────────────────+─────────────+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z   |
| {m_xy0|(0.0,0.0,0.5)} | +x,+y,−z+1/2 |
| {m_0yz|(0.0,0.0,0.5)} | −x,+y,+z+1/2 |
| {2_0y0|(0.0,0.0,0.0)} |   −x,+y,−z   |
+──────────────────────+─────────────+
.................

**********************
space group: 28:a−cb {'Hall': 'P −2a −2a', 'HM': ' P m 2 a'}
Crystal system: Orthorhombic
Setting: a−cb
+x,+y,+z
+x+1/2,+y,−z
−x+1/2,+y,+z
.................
+──────────────────────+─────────────+
|         Seitz        |     Jones   |
+──────────────────────+─────────────+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z   |
| {m_xy0|(0.5,0.0,0.0)} | +x+1/2,+y,−z |
```

```
| {m_0yz|(0.5,0.0,0.0)} | −x+1/2,+y,+z |
| {2_0y0|(0.0,0.0,0.0)} |   −x,+y,−z   |
+---------------------+-------------+
```
....

```
*********************
space group: 29 {'Hall': ' P 2c −2ac', 'HM': 'P c a 21'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z+1/2
−x+1/2,+y,+z+1/2
```
....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)}    |    +x,+y,+z     |
| {2_00z|(0.0,0.0,0.5)} |   −x,−y,+z+1/2   |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {m_x0z|(0.5,0.0,0.0)} |   +x+1/2,−y,+z   |
+---------------------+-----------------+
```
....

```
*********************
space group: 29:ba−c {'Hall': ' P 2c −2b', 'HM': ' P b c 21'}
Crystal system: Orthorhombic
Setting: ba−c
+x,+y,+z
−x,−y,+z+1/2
−x,+y+1/2,+z
```
....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)}    |    +x,+y,+z     |
| {2_00z|(0.0,0.0,0.5)} |   −x,−y,+z+1/2   |
| {m_0yz|(0.0,0.5,0.0)} |   −x,+y+1/2,+z   |
| {m_x0z|(0.0,0.5,0.5)} | +x,−y+1/2,+z+1/2 |
+---------------------+-----------------+
```
....

```
*********************
space group: 29:cab {'Hall': ' P −2b 2a', 'HM': 'P 21 a b'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y+1/2,−z
+x+1/2,−y,−z
```
....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)}    |    +x,+y,+z     |
| {m_xy0|(0.0,0.5,0.0)} |   +x,+y+1/2,−z   |
| {2_x00|(0.5,0.0,0.0)} |   +x+1/2,−y,−z   |
```

| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,+z |
+--------------------+----------------+

....

****
space group: 29:−cba {'Hall': ' P −2ac 2a', 'HM': ' P 21 c a'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
+x+1/2,+y,−z+1/2
+x+1/2,−y,−z

....
+--------------------+----------------+
| Seitz | Jones |
+--------------------+----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0	(0.5,0.0,0.5)}	+x+1/2,+y,−z+1/2
{2_x00	(0.5,0.0,0.0)}	+x+1/2,−y,−z
{m_x0z	(0.0,0.0,0.5)}	+x,−y,+z+1/2
+--------------------+----------------+

....

****
space group: 29:bca {'Hall': ' P −2bc −2c', 'HM': 'P c 21 b'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y+1/2,−z+1/2
−x,+y,+z+1/2

....
+--------------------+----------------+
| Seitz | Jones |
+--------------------+----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0	(0.0,0.5,0.5)}	+x,+y+1/2,−z+1/2
{m_0yz	(0.0,0.0,0.5)}	−x,+y,+z+1/2
{2_0y0	(0.0,0.5,0.0)}	−x,+y+1/2,−z
+--------------------+----------------+

....

****
space group: 29:a−cb {'Hall': ' P −2a −2ab', 'HM': ' P b 21 a'}
Crystal system: Orthorhombic
Setting: a−cb
+x,+y,+z
+x+1/2,+y,−z
−x+1/2,+y+1/2,+z

....
+--------------------+----------------+
| Seitz | Jones |
+--------------------+----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0	(0.5,0.0,0.0)}	+x+1/2,+y,−z
{m_0yz	(0.5,0.5,0.0)}	−x+1/2,+y+1/2,+z

```
| {2_0y0|(0.0,0.5,0.0)} |    -x,+y+1/2,-z    |
+----------------------+------------------+
```
....

```
**********************
space group: 30 {'Hall': 'P 2 -2bc', 'HM': 'P n c 2'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
-x,+y+1/2,+z+1/2
..................
+----------------------+------------------+
|        Seitz         |      Jones       |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z     |
| {m_0yz|(0.0,0.5,0.5)} | -x,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.5,0.5)} | +x,-y+1/2,+z+1/2 |
+----------------------+------------------+
```
....

```
**********************
space group: 30:ba-c {'Hall': 'P 2 -2ac', 'HM': ' P c n 2'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y,+z
-x+1/2,+y,+z+1/2
..................
+----------------------+------------------+
|        Seitz         |      Jones       |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z     |
| {m_0yz|(0.5,0.0,0.5)} | -x+1/2,+y,+z+1/2 |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,-y,+z+1/2 |
+----------------------+------------------+
```
....

```
**********************
space group: 30:cab {'Hall': 'P -2ac 2', 'HM': 'P 2 n a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x+1/2,+y,-z+1/2
+x,-y,-z
..................
+----------------------+------------------+
|        Seitz         |      Jones       |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,-z+1/2 |
| {2_x00|(0.0,0.0,0.0)} |     +x,-y,-z     |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,-y,+z+1/2 |
```

```
        +-----------------------+-------------------+
        ...................

        ***********************
        space group: 30:-cba {'Hall': 'P -2ab 2', 'HM': ' P 2 a n'}
        Crystal system: Orthorhombic
        Setting: -cba
        +x,+y,+z
        +x+1/2,+y+1/2,-z
        +x,-y,-z
        ...................
        +-----------------------+-------------------+
        |        Seitz          |      Jones        |
        +-----------------------+-------------------+
        |     {1|(0.0,0.0,0.0)} |      +x,+y,+z      |
        | {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,-z |
        | {2_x00|(0.0,0.0,0.0)} |      +x,-y,-z      |
        | {m_x0z|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,+z |
        +-----------------------+-------------------+
        ...................

        ***********************
        space group: 30:bca {'Hall': 'P -2ab -2ab', 'HM': 'P b 2 n'}
        Crystal system: Orthorhombic
        Setting: bca
        +x,+y,+z
        +x+1/2,+y+1/2,-z
        -x+1/2,+y+1/2,+z
        ...................
        +-----------------------+-------------------+
        |        Seitz          |      Jones        |
        +-----------------------+-------------------+
        |     {1|(0.0,0.0,0.0)} |      +x,+y,+z      |
        | {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,-z |
        | {m_0yz|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,+z |
        | {2_0y0|(0.0,0.0,0.0)} |      -x,+y,-z      |
        +-----------------------+-------------------+
        ...................

        ***********************
        space group: 30:a-cb {'Hall': 'P -2bc -2bc', 'HM': ' P n 2 b'}
        Crystal system: Orthorhombic
        Setting: a-cb
        +x,+y,+z
        +x,+y+1/2,-z+1/2
        -x,+y+1/2,+z+1/2
        ...................
        +-----------------------+-------------------+
        |        Seitz          |      Jones        |
        +-----------------------+-------------------+
        |     {1|(0.0,0.0,0.0)} |      +x,+y,+z      |
        | {m_xy0|(0.0,0.5,0.5)} | +x,+y+1/2,-z+1/2 |
        | {m_0yz|(0.0,0.5,0.5)} | -x,+y+1/2,+z+1/2 |
        | {2_0y0|(0.0,0.0,0.0)} |      -x,+y,-z      |
```

```
+--------------------+----------------+
...................

*********************
space group: 31 {'Hall': ' P 2ac -2', 'HM': 'P m n 21'}
Crystal system: Orthorhombic
+x,+y,+z
-x+1/2,-y,+z+1/2
-x,+y,+z
..................
+--------------------+----------------+
|        Seitz       |      Jones     |
+--------------------+----------------+
|    {1|(0.0,0.0,0.0)}   |     +x,+y,+z    |
| {2_00z|(0.5,0.0,0.5)} | -x+1/2,-y,+z+1/2 |
| {m_0yz|(0.0,0.0,0.0)} |     -x,+y,+z    |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,-y,+z+1/2 |
+--------------------+----------------+
..................

*********************
space group: 31:ba-c {'Hall': ' P 2bc -2bc', 'HM': ' P n m 21'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y+1/2,+z+1/2
-x,+y+1/2,+z+1/2
..................
+--------------------+----------------+
|        Seitz       |      Jones     |
+--------------------+----------------+
|    {1|(0.0,0.0,0.0)}   |     +x,+y,+z    |
| {2_00z|(0.0,0.5,0.5)} | -x,-y+1/2,+z+1/2 |
| {m_0yz|(0.0,0.5,0.5)} | -x,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.0,0.0)} |     +x,-y,+z    |
+--------------------+----------------+
..................

*********************
space group: 31:cab {'Hall': ' P -2ab 2ab', 'HM': 'P 21 m n'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x+1/2,+y+1/2,-z
+x+1/2,-y+1/2,-z
..................
+--------------------+----------------+
|        Seitz       |      Jones     |
+--------------------+----------------+
|    {1|(0.0,0.0,0.0)}   |     +x,+y,+z    |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,-z |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,-z |
| {m_x0z|(0.0,0.0,0.0)} |     +x,-y,+z    |
+--------------------+----------------+
```

....

*********************\
space group: 31:−cba {'Hall': ' P −2 2ac', 'HM': ' P 21 n m'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
+x,+y,−z
+x+1/2,−y,−z+1/2
....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {m_xy0|(0.0,0.0,0.0)} |     +x,+y,−z     |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,−y,−z+1/2 |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,−y,+z+1/2 |
+---------------------+-----------------+
```

....

*********************\
space group: 31:bca {'Hall': ' P −2 −2bc', 'HM': 'P n 21 m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y,−z
−x,+y+1/2,+z+1/2
....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {m_xy0|(0.0,0.0,0.0)} |     +x,+y,−z     |
| {m_0yz|(0.0,0.5,0.5)} | −x,+y+1/2,+z+1/2 |
| {2_0y0|(0.0,0.5,0.5)} | −x,+y+1/2,−z+1/2 |
+---------------------+-----------------+
```

....

*********************\
space group: 31:a−cb {'Hall': ' P −2ab −2', 'HM': ' P m 21 n'}
Crystal system: Orthorhombic
Setting: a−cb
+x,+y,+z
+x+1/2,+y+1/2,−z
−x,+y,+z
....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,−z |
| {m_0yz|(0.0,0.0,0.0)} |     −x,+y,+z     |
| {2_0y0|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,−z |
+---------------------+-----------------+
```

....

****
space group: 32 {'Hall': 'P 2 -2ab', 'HM': 'P b a 2'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
-x+1/2,+y+1/2,+z
....
+----------------------+------------------+
| Seitz | Jones |
+----------------------+------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.0,0.0,0.0)}	-x,-y,+z
{m_0yz	(0.5,0.5,0.0)}	-x+1/2,+y+1/2,+z
{m_x0z	(0.5,0.5,0.0)}	+x+1/2,-y+1/2,+z
+----------------------+------------------+

....

****
space group: 32:cab {'Hall': 'P -2bc 2', 'HM': 'P 2 c b'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y+1/2,-z+1/2
+x,-y,-z
....
+----------------------+------------------+
| Seitz | Jones |
+----------------------+------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0	(0.0,0.5,0.5)}	+x,+y+1/2,-z+1/2
{2_x00	(0.0,0.0,0.0)}	+x,-y,-z
{m_x0z	(0.0,0.5,0.5)}	+x,-y+1/2,+z+1/2
+----------------------+------------------+

....

****
space group: 32:bca {'Hall': 'P -2ac -2ac', 'HM': 'P c 2 a'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x+1/2,+y,-z+1/2
-x+1/2,+y,+z+1/2
....
+----------------------+------------------+
| Seitz | Jones |
+----------------------+------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0	(0.5,0.0,0.5)}	+x+1/2,+y,-z+1/2
{m_0yz	(0.5,0.0,0.5)}	-x+1/2,+y,+z+1/2
{2_0y0	(0.0,0.0,0.0)}	-x,+y,-z
+----------------------+------------------+

....

```
*********************
space group: 33 {'Hall': ' P 2c -2n', 'HM': 'P n a 21'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z+1/2
-x+1/2,+y+1/2,+z+1/2

..................
+--------------------+--------------------+
|        Seitz       |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z      |
| {2_00z|(0.0,0.0,0.5)} |     -x,-y,+z+1/2    |
| {m_0yz|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.0)} |    +x+1/2,-y+1/2,+z   |
+--------------------+--------------------+

..................

*********************
space group: 33:ba-c {'Hall': ' P 2c -2ab', 'HM': ' P b n 21'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y,+z+1/2
-x+1/2,+y+1/2,+z

..................
+--------------------+--------------------+
|        Seitz       |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z      |
| {2_00z|(0.0,0.0,0.5)} |     -x,-y,+z+1/2    |
| {m_0yz|(0.5,0.5,0.0)} |    -x+1/2,+y+1/2,+z   |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
+--------------------+--------------------+

..................

*********************
space group: 33:cab {'Hall': ' P -2bc 2a', 'HM': 'P 21 n b'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y+1/2,-z+1/2
+x+1/2,-y,-z

..................
+--------------------+--------------------+
|        Seitz       |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z      |
| {m_xy0|(0.0,0.5,0.5)} |    +x,+y+1/2,-z+1/2   |
| {2_x00|(0.5,0.0,0.0)} |     +x+1/2,-y,-z    |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
+--------------------+--------------------+

..................
```

```
**********************
space group: 33:-cba {'Hall': ' P -2n 2a', 'HM': ' P 21 c n'}
Crystal system: Orthorhombic
Setting: -cba
+x,+y,+z
+x+1/2,+y+1/2,-z+1/2
+x+1/2,-y,-z

.................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z       |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,-z+1/2 |
| {2_x00|(0.5,0.0,0.0)} |     +x+1/2,-y,-z    |
| {m_x0z|(0.0,0.5,0.5)} |   +x,-y+1/2,+z+1/2  |
+---------------------+---------------------+

.................

**********************
space group: 33:bca {'Hall': ' P -2n -2ac', 'HM': 'P c 21 n'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x+1/2,+y+1/2,-z+1/2
-x+1/2,+y,+z+1/2

.................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z       |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,-z+1/2 |
| {m_0yz|(0.5,0.0,0.5)} |   -x+1/2,+y,+z+1/2  |
| {2_0y0|(0.0,0.5,0.0)} |     -x,+y+1/2,-z    |
+---------------------+---------------------+
.................

**********************
space group: 33:a-cb {'Hall': ' P -2ac -2n', 'HM': ' P n 21 a'}
Crystal system: Orthorhombic
Setting: a-cb
+x,+y,+z
+x+1/2,+y,-z+1/2
-x+1/2,+y+1/2,+z+1/2

.................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z       |
| {m_xy0|(0.5,0.0,0.5)} |   +x+1/2,+y,-z+1/2  |
| {m_0yz|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,+z+1/2 |
| {2_0y0|(0.0,0.5,0.0)} |     -x,+y+1/2,-z    |
+---------------------+---------------------+

.................
```

```
**********************
space group: 34 {'Hall': 'P 2 -2n', 'HM': 'P n n 2'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
-x+1/2,+y+1/2,+z+1/2

..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)}    |       +x,+y,+z       |
| {2_00z|(0.0,0.0,0.0)} |       -x,-y,+z       |
| {m_0yz|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
+---------------------+---------------------+

..................


**********************
space group: 34:cab {'Hall': 'P -2n 2', 'HM': 'P 2 n n'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x+1/2,+y+1/2,-z+1/2
+x,-y,-z

..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)}    |       +x,+y,+z       |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,-z+1/2 |
| {2_x00|(0.0,0.0,0.0)} |       +x,-y,-z       |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
+---------------------+---------------------+

..................


**********************
space group: 34:bca {'Hall': 'P -2n -2n', 'HM': 'P n 2 n'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x+1/2,+y+1/2,-z+1/2
-x+1/2,+y+1/2,+z+1/2

..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)}    |       +x,+y,+z       |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,-z+1/2 |
| {m_0yz|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,+z+1/2 |
| {2_0y0|(0.0,0.0,0.0)} |       -x,+y,-z       |
+---------------------+---------------------+

..................


**********************
```

space group: 35 {'Hall': 'C 2 -2', 'HM': 'C m m 2'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
-x,+y,+z
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.0,0.0)}	-x,-y,+z
{m_0yz|(0.0,0.0,0.0)}	-x,+y,+z
{m_x0z|(0.0,0.0,0.0)}	+x,-y,+z
{1|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z
{2_00z|(0.5,0.5,0.0)}	-x+1/2,-y+1/2,+z
{m_0yz|(0.5,0.5,0.0)}	-x+1/2,+y+1/2,+z
{m_x0z|(0.5,0.5,0.0)}	+x+1/2,-y+1/2,+z

....

****
space group: 35:cab {'Hall': 'A -2 2', 'HM': 'A 2 m m'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y,-z
+x,-y,-z
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0|(0.0,0.0,0.0)}	+x,+y,-z
{2_x00|(0.0,0.0,0.0)}	+x,-y,-z
{m_x0z|(0.0,0.0,0.0)}	+x,-y,+z
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{m_xy0|(0.0,0.5,0.5)}	+x,+y+1/2,-z+1/2
{2_x00|(0.0,0.5,0.5)}	+x,-y+1/2,-z+1/2
{m_x0z|(0.0,0.5,0.5)}	+x,-y+1/2,+z+1/2

....

****
space group: 35:bca {'Hall': 'B -2 -2', 'HM': 'B m 2 m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y,-z
-x,+y,+z
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z

```
| {m_xy0|(0.0,0.0,0.0)} |     +x,+y,−z      |
| {m_0yz|(0.0,0.0,0.0)} |     −x,+y,+z      |
| {2_0y0|(0.0,0.0,0.0)} |     −x,+y,−z      |
|   {1|(0.5,0.0,0.5)}   | +x+1/2,+y,+z+1/2  |
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,−z+1/2  |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2  |
| {2_0y0|(0.5,0.0,0.5)} | −x+1/2,+y,−z+1/2  |
+───────────────────────+───────────────────+
```

....

```
***********************
space group: 36 {'Hall': ' C 2c −2', 'HM': 'C m c 21'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z+1/2
−x,+y,+z
```

....

```
+─────────────────────+─────────────────────+
|        Seitz        |        Jones        |
+─────────────────────+─────────────────────+
|    {1|(0.0,0.0,0.0)}    |       +x,+y,+z       |
| {2_00z|(0.0,0.0,0.5)} |     −x,−y,+z+1/2     |
| {m_0yz|(0.0,0.0,0.0)} |       −x,+y,+z       |
| {m_x0z|(0.0,0.0,0.5)} |     +x,−y,+z+1/2     |
|    {1|(0.5,0.5,0.0)}    |    +x+1/2,+y+1/2,+z    |
| {2_00z|(0.5,0.5,0.5)} | −x+1/2,−y+1/2,+z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} |   −x+1/2,+y+1/2,+z   |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2 |
+─────────────────────+─────────────────────+
```

....

```
***********************
space group: 36:ba−c {'Hall': ' C 2c −2c', 'HM': ' C c m 21'}
Crystal system: Orthorhombic
Setting: ba−c
+x,+y,+z
−x,−y,+z+1/2
−x,+y,+z+1/2
```

....

```
+─────────────────────+─────────────────────+
|        Seitz        |        Jones        |
+─────────────────────+─────────────────────+
|    {1|(0.0,0.0,0.0)}    |       +x,+y,+z       |
| {2_00z|(0.0,0.0,0.5)} |     −x,−y,+z+1/2     |
| {m_0yz|(0.0,0.0,0.5)} |     −x,+y,+z+1/2     |
| {m_x0z|(0.0,0.0,0.0)} |       +x,−y,+z       |
|    {1|(0.5,0.5,0.0)}    |    +x+1/2,+y+1/2,+z    |
| {2_00z|(0.5,0.5,0.5)} | −x+1/2,−y+1/2,+z+1/2 |
| {m_0yz|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.0)} |   +x+1/2,−y+1/2,+z   |
+─────────────────────+─────────────────────+
```

....

```
***********************
```

space group: 36:cab {'Hall': ' A −2a 2a', 'HM': 'A 21 m a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x+1/2,+y,−z
+x+1/2,−y,−z
....
+---------------------+---------------------+
| Seitz | Jones |
+---------------------+---------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0	(0.5,0.0,0.0)}	+x+1/2,+y,−z
{2_x00	(0.5,0.0,0.0)}	+x+1/2,−y,−z
{m_x0z	(0.0,0.0,0.0)}	+x,−y,+z
{1	(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{m_xy0	(0.5,0.5,0.5)}	+x+1/2,+y+1/2,−z+1/2
{2_x00	(0.5,0.5,0.5)}	+x+1/2,−y+1/2,−z+1/2
{m_x0z	(0.0,0.5,0.5)}	+x,−y+1/2,+z+1/2
+---------------------+---------------------+
....

****
space group: 36:−cba {'Hall': ' A −2 2a', 'HM': ' A 21 a m'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
+x,+y,−z
+x+1/2,−y,−z
....
+---------------------+---------------------+
| Seitz | Jones |
+---------------------+---------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0	(0.0,0.0,0.0)}	+x,+y,−z
{2_x00	(0.5,0.0,0.0)}	+x+1/2,−y,−z
{m_x0z	(0.5,0.0,0.0)}	+x+1/2,−y,+z
{1	(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{m_xy0	(0.0,0.5,0.5)}	+x,+y+1/2,−z+1/2
{2_x00	(0.5,0.5,0.5)}	+x+1/2,−y+1/2,−z+1/2
{m_x0z	(0.5,0.5,0.5)}	+x+1/2,−y+1/2,+z+1/2
+---------------------+---------------------+
....

****
space group: 36:bca {'Hall': ' B −2 −2b', 'HM': 'B b 21 m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y,−z
−x,+y+1/2,+z
....
+---------------------+---------------------+
| Seitz | Jones |
+---------------------+---------------------+

```
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {m_xy0|(0.0,0.0,0.0)} |      +x,+y,−z       |
| {m_0yz|(0.0,0.5,0.0)} |     −x,+y+1/2,+z    |
| {2_0y0|(0.0,0.5,0.0)} |     −x,+y+1/2,−z    |
|    {1|(0.5,0.0,0.5)}    |    +x+1/2,+y,+z+1/2  |
| {m_xy0|(0.5,0.0,0.5)} |    +x+1/2,+y,−z+1/2  |
| {m_0yz|(0.5,0.5,0.5)} |  −x+1/2,+y+1/2,+z+1/2 |
| {2_0y0|(0.5,0.5,0.5)} |  −x+1/2,+y+1/2,−z+1/2 |
+---------------------+---------------------+
..................

*********************
space group: 36:a−cb {'Hall': ' B −2b −2', 'HM': ' B m 21 b'}
Crystal system: Orthorhombic
Setting: a−cb
+x,+y,+z
+x,+y+1/2,−z
−x,+y,+z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {m_xy0|(0.0,0.5,0.0)} |     +x,+y+1/2,−z    |
| {m_0yz|(0.0,0.0,0.0)} |      −x,+y,+z       |
| {2_0y0|(0.0,0.5,0.0)} |     −x,+y+1/2,−z    |
|    {1|(0.5,0.0,0.5)}    |    +x+1/2,+y,+z+1/2  |
| {m_xy0|(0.5,0.5,0.5)} |  +x+1/2,+y+1/2,−z+1/2 |
| {m_0yz|(0.5,0.0,0.5)} |    −x+1/2,+y,+z+1/2  |
| {2_0y0|(0.5,0.5,0.5)} |  −x+1/2,+y+1/2,−z+1/2 |
+---------------------+---------------------+
..................

*********************
space group: 37 {'Hall': 'C 2 −2c', 'HM': 'C c c 2'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
−x,+y,+z+1/2
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {2_00z|(0.0,0.0,0.0)} |      −x,−y,+z       |
| {m_0yz|(0.0,0.0,0.5)} |     −x,+y,+z+1/2    |
| {m_x0z|(0.0,0.0,0.5)} |     +x,−y,+z+1/2    |
|    {1|(0.5,0.5,0.0)}    |    +x+1/2,+y+1/2,+z  |
| {2_00z|(0.5,0.5,0.0)} |    −x+1/2,−y+1/2,+z  |
| {m_0yz|(0.5,0.5,0.5)} |  −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.5)} |  +x+1/2,−y+1/2,+z+1/2 |
+---------------------+---------------------+
..................
```

```
**********************
space group: 37:cab {'Hall': 'A −2a 2', 'HM': 'A 2 a a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x+1/2,+y,−z
+x,−y,−z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {m_xy0|(0.5,0.0,0.0)} |     +x+1/2,+y,−z     |
| {2_x00|(0.0,0.0,0.0)} |      +x,−y,−z        |
| {m_x0z|(0.5,0.0,0.0)} |     +x+1/2,−y,+z     |
|    {1|(0.0,0.5,0.5)} |    +x,+y+1/2,+z+1/2   |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,−z+1/2 |
| {2_x00|(0.0,0.5,0.5)} |    +x,−y+1/2,−z+1/2   |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2 |
+---------------------+---------------------+
..................

**********************
space group: 37:bca {'Hall': 'B −2b −2b', 'HM': 'B b 2 b'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y+1/2,−z
−x,+y+1/2,+z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {m_xy0|(0.0,0.5,0.0)} |     +x,+y+1/2,−z     |
| {m_0yz|(0.0,0.5,0.0)} |     −x,+y+1/2,+z     |
| {2_0y0|(0.0,0.0,0.0)} |      −x,+y,−z        |
|    {1|(0.5,0.0,0.5)} |    +x+1/2,+y,+z+1/2   |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,−z+1/2 |
| {m_0yz|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,+z+1/2 |
| {2_0y0|(0.5,0.0,0.5)} |    −x+1/2,+y,−z+1/2   |
+---------------------+---------------------+
..................

**********************
space group: 38 {'Hall': 'A 2 −2', 'HM': 'A m m 2'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
−x,+y,+z
..................
+---------------------+------------------+
|        Seitz        |      Jones       |
+---------------------+------------------+
```

```
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)}   |      -x,-y,+z      |
| {m_0yz|(0.0,0.0,0.0)}   |      -x,+y,+z      |
| {m_x0z|(0.0,0.0,0.0)}   |      +x,-y,+z      |
|    {1|(0.0,0.5,0.5)}    |  +x,+y+1/2,+z+1/2  |
| {2_00z|(0.0,0.5,0.5)}   |  -x,-y+1/2,+z+1/2  |
| {m_0yz|(0.0,0.5,0.5)}   |  -x,+y+1/2,+z+1/2  |
| {m_x0z|(0.0,0.5,0.5)}   |  +x,-y+1/2,+z+1/2  |
+-------------------------+--------------------+
.................

**********************
space group: 38:ba-c {'Hall': 'B 2 -2', 'HM': ' B m m 2'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y,+z
-x,+y,+z
.................
+-------------------------+--------------------+
|          Seitz          |        Jones       |
+-------------------------+--------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)}   |      -x,-y,+z      |
| {m_0yz|(0.0,0.0,0.0)}   |      -x,+y,+z      |
| {m_x0z|(0.0,0.0,0.0)}   |      +x,-y,+z      |
|    {1|(0.5,0.0,0.5)}    |  +x+1/2,+y,+z+1/2  |
| {2_00z|(0.5,0.0,0.5)}   |  -x+1/2,-y,+z+1/2  |
| {m_0yz|(0.5,0.0,0.5)}   |  -x+1/2,+y,+z+1/2  |
| {m_x0z|(0.5,0.0,0.5)}   |  +x+1/2,-y,+z+1/2  |
+-------------------------+--------------------+
.................

**********************
space group: 38:cab {'Hall': 'B -2 2', 'HM': 'B 2 m m'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y,-z
+x,-y,-z
.................
+-------------------------+--------------------+
|          Seitz          |        Jones       |
+-------------------------+--------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z      |
| {m_xy0|(0.0,0.0,0.0)}   |      +x,+y,-z      |
| {2_x00|(0.0,0.0,0.0)}   |      +x,-y,-z      |
| {m_x0z|(0.0,0.0,0.0)}   |      +x,-y,+z      |
|    {1|(0.5,0.0,0.5)}    |  +x+1/2,+y,+z+1/2  |
| {m_xy0|(0.5,0.0,0.5)}   |  +x+1/2,+y,-z+1/2  |
| {2_x00|(0.5,0.0,0.5)}   |  +x+1/2,-y,-z+1/2  |
| {m_x0z|(0.5,0.0,0.5)}   |  +x+1/2,-y,+z+1/2  |
+-------------------------+--------------------+
.................
```

```
**********************
space group: 38:-cba {'Hall': 'C -2 2', 'HM': ' C 2 m m'}
Crystal system: Orthorhombic
Setting: -cba
+x,+y,+z
+x,+y,-z
+x,-y,-z

..................
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z    |
| {m_xy0|(0.0,0.0,0.0)} |     +x,+y,-z    |
| {2_x00|(0.0,0.0,0.0)} |     +x,-y,-z    |
| {m_x0z|(0.0,0.0,0.0)} |     +x,-y,+z    |
|    {1|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,+z |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,-z |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,-z |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,+z |
+---------------------+-----------------+

..................

**********************
space group: 38:bca {'Hall': 'C -2 -2', 'HM': 'C m 2 m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y,-z
-x,+y,+z

..................
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z    |
| {m_xy0|(0.0,0.0,0.0)} |     +x,+y,-z    |
| {m_0yz|(0.0,0.0,0.0)} |     -x,+y,+z    |
| {2_0y0|(0.0,0.0,0.0)} |     -x,+y,-z    |
|    {1|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,+z |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,-z |
| {m_0yz|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,+z |
| {2_0y0|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,-z |
+---------------------+-----------------+

..................

**********************
space group: 38:a-cb {'Hall': 'A -2 -2', 'HM': ' A m 2 m'}
Crystal system: Orthorhombic
Setting: a-cb
+x,+y,+z
+x,+y,-z
-x,+y,+z

..................
+---------------------+-----------------+
```

```
|        Seitz         |      Jones       |
+----------------------+------------------+
|     {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
|  {m_xy0|(0.0,0.0,0.0)} |     +x,+y,-z     |
|  {m_0yz|(0.0,0.0,0.0)} |     -x,+y,+z     |
|   {2_0y0|(0.0,0.0,0.0)} |     -x,+y,-z     |
|     {1|(0.0,0.5,0.5)} |   +x,+y+1/2,+z+1/2 |
|  {m_xy0|(0.0,0.5,0.5)} |   +x,+y+1/2,-z+1/2 |
|  {m_0yz|(0.0,0.5,0.5)} |   -x,+y+1/2,+z+1/2 |
|   {2_0y0|(0.0,0.5,0.5)} |   -x,+y+1/2,-z+1/2 |
+----------------------+------------------+
..................

**********************
space group: 39 {'Hall': 'A 2 -2c', 'HM': 'A b m 2'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
-x,+y,+z+1/2
..................
+----------------------+------------------+
|        Seitz         |      Jones       |
+----------------------+------------------+
|     {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
|  {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z     |
|  {m_0yz|(0.0,0.0,0.5)} |   -x,+y,+z+1/2   |
|  {m_x0z|(0.0,0.0,0.5)} |   +x,-y,+z+1/2   |
|     {1|(0.0,0.5,0.5)} |   +x,+y+1/2,+z+1/2 |
|  {2_00z|(0.0,0.5,0.5)} |   -x,-y+1/2,+z+1/2 |
|  {m_0yz|(0.0,0.5,0.0)} |   -x,+y+1/2,+z   |
|  {m_x0z|(0.0,0.5,0.0)} |   +x,-y+1/2,+z   |
+----------------------+------------------+
..................

**********************
space group: 39:ba-c {'Hall': 'B 2 -2c', 'HM': ' B m a 2'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y,+z
-x,+y,+z+1/2
..................
+----------------------+------------------+
|        Seitz         |      Jones       |
+----------------------+------------------+
|     {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
|  {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z     |
|  {m_0yz|(0.0,0.0,0.5)} |   -x,+y,+z+1/2   |
|  {m_x0z|(0.0,0.0,0.5)} |   +x,-y,+z+1/2   |
|     {1|(0.5,0.0,0.5)} |   +x+1/2,+y,+z+1/2 |
|  {2_00z|(0.5,0.0,0.5)} |   -x+1/2,-y,+z+1/2 |
|  {m_0yz|(0.5,0.0,0.0)} |   -x+1/2,+y,+z   |
|  {m_x0z|(0.5,0.0,0.0)} |   +x+1/2,-y,+z   |
+----------------------+------------------+
```

....

****
space group: 39:cab {'Hall': 'B −2c 2', 'HM': 'B 2 c m'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y,−z+1/2
+x,−y,−z
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0|(0.0,0.0,0.5)}	+x,+y,−z+1/2
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{m_x0z|(0.0,0.0,0.5)}	+x,−y,+z+1/2
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{m_xy0|(0.5,0.0,0.0)}	+x+1/2,+y,−z
{2_x00|(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{m_x0z|(0.5,0.0,0.0)}	+x+1/2,−y,+z

....

****
space group: 39:−cba {'Hall': 'C −2b 2', 'HM': ' C 2 m b'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
+x,+y+1/2,−z
+x,−y,−z
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0|(0.0,0.5,0.0)}	+x,+y+1/2,−z
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{m_x0z|(0.0,0.5,0.0)}	+x,−y+1/2,+z
{1|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z
{m_xy0|(0.5,0.0,0.0)}	+x+1/2,+y,−z
{2_x00|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{m_x0z|(0.5,0.0,0.0)}	+x+1/2,−y,+z

....

****
space group: 39:bca {'Hall': 'C −2b −2b', 'HM': 'C m 2 a'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y+1/2,−z
−x,+y+1/2,+z
....

```
+----------------------+------------------+
|         Seitz        |       Jones      |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {m_xy0|(0.0,0.5,0.0)} |   +x,+y+1/2,-z   |
| {m_0yz|(0.0,0.5,0.0)} |   -x,+y+1/2,+z   |
| {2_0y0|(0.0,0.0,0.0)} |     -x,+y,-z     |
|    {1|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,+z |
| {m_xy0|(0.5,0.0,0.0)} |   +x+1/2,+y,-z   |
| {m_0yz|(0.5,0.0,0.0)} |   -x+1/2,+y,+z   |
| {2_0y0|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,-z |
+----------------------+------------------+
```
....

```
**********************
space group: 39:a-cb {'Hall': 'A -2c -2c', 'HM': ' A c 2 m'}
Crystal system: Orthorhombic
Setting: a-cb
+x,+y,+z
+x,+y,-z+1/2
-x,+y,+z+1/2
```
....

```
+----------------------+------------------+
|         Seitz        |       Jones      |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {m_xy0|(0.0,0.0,0.5)} |   +x,+y,-z+1/2   |
| {m_0yz|(0.0,0.0,0.5)} |   -x,+y,+z+1/2   |
| {2_0y0|(0.0,0.0,0.0)} |     -x,+y,-z     |
|    {1|(0.0,0.5,0.5)} | +x,+y+1/2,+z+1/2 |
| {m_xy0|(0.0,0.5,0.0)} |   +x,+y+1/2,-z   |
| {m_0yz|(0.0,0.5,0.0)} |   -x,+y+1/2,+z   |
| {2_0y0|(0.0,0.5,0.5)} | -x,+y+1/2,-z+1/2 |
+----------------------+------------------+
```
....

```
**********************
space group: 40 {'Hall': 'A 2 -2a', 'HM': 'A m a 2'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
-x+1/2,+y,+z
```
....

```
+----------------------+--------------------+
|         Seitz        |        Jones       |
+----------------------+--------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)} |      -x,-y,+z      |
| {m_0yz|(0.5,0.0,0.0)} |    -x+1/2,+y,+z    |
| {m_x0z|(0.5,0.0,0.0)} |    +x+1/2,-y,+z    |
|    {1|(0.0,0.5,0.5)} |  +x,+y+1/2,+z+1/2  |
| {2_00z|(0.0,0.5,0.5)} |  -x,-y+1/2,+z+1/2  |
| {m_0yz|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
```

```
+--------------------+--------------------+
..................

*********************
space group: 40:ba-c {'Hall': 'B 2 -2b', 'HM': ' B b m 2'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y,+z
-x,+y+1/2,+z
..................
+--------------------+--------------------+
|        Seitz       |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}  |       +x,+y,+z       |
| {2_00z|(0.0,0.0,0.0)} |       -x,-y,+z       |
| {m_0yz|(0.0,0.5,0.0)} |     -x,+y+1/2,+z     |
| {m_x0z|(0.0,0.5,0.0)} |     +x,-y+1/2,+z     |
|    {1|(0.5,0.0,0.5)}  |    +x+1/2,+y,+z+1/2   |
| {2_00z|(0.5,0.0,0.5)} |    -x+1/2,-y,+z+1/2   |
| {m_0yz|(0.5,0.5,0.5)} |  -x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.5)} |  +x+1/2,-y+1/2,+z+1/2 |
+--------------------+--------------------+
..................

*********************
space group: 40:cab {'Hall': 'B -2b 2', 'HM': 'B 2 m b'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y+1/2,-z
+x,-y,-z
..................
+--------------------+--------------------+
|        Seitz       |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}  |       +x,+y,+z       |
| {m_xy0|(0.0,0.5,0.0)} |     +x,+y+1/2,-z     |
| {2_x00|(0.0,0.0,0.0)} |       +x,-y,-z       |
| {m_x0z|(0.0,0.5,0.0)} |     +x,-y+1/2,+z     |
|    {1|(0.5,0.0,0.5)}  |    +x+1/2,+y,+z+1/2   |
| {m_xy0|(0.5,0.5,0.5)} |  +x+1/2,+y+1/2,-z+1/2 |
| {2_x00|(0.5,0.0,0.5)} |    +x+1/2,-y,-z+1/2   |
| {m_x0z|(0.5,0.5,0.5)} |  +x+1/2,-y+1/2,+z+1/2 |
+--------------------+--------------------+
..................

*********************
space group: 40:-cba {'Hall': 'C -2c 2', 'HM': ' C 2 c m'}
Crystal system: Orthorhombic
Setting: -cba
+x,+y,+z
+x,+y,-z+1/2
+x,-y,-z
```

```
..................
+--------------------+--------------------+
|       Seitz        |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)} |       +x,+y,+z      |
| {m_xy0|(0.0,0.0,0.5)} |    +x,+y,-z+1/2    |
| {2_x00|(0.0,0.0,0.0)} |       +x,-y,-z      |
| {m_x0z|(0.0,0.0,0.5)} |    +x,-y,+z+1/2    |
|    {1|(0.5,0.5,0.0)} |   +x+1/2,+y+1/2,+z  |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,-z+1/2 |
| {2_x00|(0.5,0.5,0.0)} |   +x+1/2,-y+1/2,-z  |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
+--------------------+--------------------+
..................

**********************
space group: 40:bca {'Hall': 'C -2c -2c', 'HM': 'C c 2 m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y,-z+1/2
-x,+y,+z+1/2
..................
+--------------------+--------------------+
|       Seitz        |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)} |       +x,+y,+z      |
| {m_xy0|(0.0,0.0,0.5)} |    +x,+y,-z+1/2    |
| {m_0yz|(0.0,0.0,0.5)} |    -x,+y,+z+1/2    |
| {2_0y0|(0.0,0.0,0.0)} |       -x,+y,-z      |
|    {1|(0.5,0.5,0.0)} |   +x+1/2,+y+1/2,+z  |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,-z+1/2 |
| {m_0yz|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,+z+1/2 |
| {2_0y0|(0.5,0.5,0.0)} |   -x+1/2,+y+1/2,-z  |
+--------------------+--------------------+
..................

**********************
space group: 40:a-cb {'Hall': 'A -2a -2a', 'HM': ' A m 2 a'}
Crystal system: Orthorhombic
Setting: a-cb
+x,+y,+z
+x+1/2,+y,-z
-x+1/2,+y,+z
..................
+--------------------+--------------------+
|       Seitz        |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)} |       +x,+y,+z      |
| {m_xy0|(0.5,0.0,0.0)} |    +x+1/2,+y,-z    |
| {m_0yz|(0.5,0.0,0.0)} |    -x+1/2,+y,+z    |
| {2_0y0|(0.0,0.0,0.0)} |       -x,+y,-z      |
|    {1|(0.0,0.5,0.5)} |    +x,+y+1/2,+z+1/2 |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,-z+1/2 |
```

```
| {m_0yz|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,+z+1/2 |
| {2_0y0|(0.0,0.5,0.5)} |   −x,+y+1/2,−z+1/2   |
+--------------------+--------------------+
```
....

```
*********************
space group: 41 {'Hall': 'A 2 −2ac', 'HM': 'A b a 2'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
−x+1/2,+y,+z+1/2
```
....

```
+--------------------+-----------------+
|        Seitz       |      Jones      |
+--------------------+-----------------+
|    {1|(0.0,0.0,0.0)}  |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |     −x,−y,+z     |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,−y,+z+1/2 |
|    {1|(0.0,0.5,0.5)}  | +x,+y+1/2,+z+1/2 |
| {2_00z|(0.0,0.5,0.5)} | −x,−y+1/2,+z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,+z |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,+z |
+--------------------+-----------------+
```
....

```
*********************
space group: 41:ba−c {'Hall': 'B 2 −2bc', 'HM': ' B b a 2'}
Crystal system: Orthorhombic
Setting: ba−c
+x,+y,+z
−x,−y,+z
−x,+y+1/2,+z+1/2
```
....

```
+--------------------+-----------------+
|        Seitz       |      Jones      |
+--------------------+-----------------+
|    {1|(0.0,0.0,0.0)}  |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |     −x,−y,+z     |
| {m_0yz|(0.0,0.5,0.5)} | −x,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.5,0.5)} | +x,−y+1/2,+z+1/2 |
|    {1|(0.5,0.0,0.5)}  | +x+1/2,+y,+z+1/2 |
| {2_00z|(0.5,0.0,0.5)} | −x+1/2,−y,+z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,+z |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,+z |
+--------------------+-----------------+
```
....

```
*********************
space group: 41:cab {'Hall': 'B −2bc 2', 'HM': 'B 2 c b'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y+1/2,−z+1/2
```

+x,−y,−z
....
+---------------------+-----------------+
| Seitz | Jones |
+---------------------+-----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0	(0.0,0.5,0.5)}	+x,+y+1/2,−z+1/2
{2_x00	(0.0,0.0,0.0)}	+x,−y,−z
{m_x0z	(0.0,0.5,0.5)}	+x,−y+1/2,+z+1/2
{1	(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{m_xy0	(0.5,0.5,0.0)}	+x+1/2,+y+1/2,−z
{2_x00	(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{m_x0z	(0.5,0.5,0.0)}	+x+1/2,−y+1/2,+z
+---------------------+-----------------+

....

****
space group: 41:−cba {'Hall': 'C −2bc 2', 'HM': ' C 2 c b'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
+x,+y+1/2,−z+1/2
+x,−y,−z
....
+---------------------+-----------------+
| Seitz | Jones |
+---------------------+-----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0	(0.0,0.5,0.5)}	+x,+y+1/2,−z+1/2
{2_x00	(0.0,0.0,0.0)}	+x,−y,−z
{m_x0z	(0.0,0.5,0.5)}	+x,−y+1/2,+z+1/2
{1	(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z
{m_xy0	(0.5,0.0,0.5)}	+x+1/2,+y,−z+1/2
{2_x00	(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{m_x0z	(0.5,0.0,0.5)}	+x+1/2,−y,+z+1/2
+---------------------+-----------------+

....

****
space group: 41:bca {'Hall': 'C −2bc −2bc', 'HM': 'C c 2 a'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y+1/2,−z+1/2
−x,+y+1/2,+z+1/2
....
+---------------------+-----------------+
| Seitz | Jones |
+---------------------+-----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{m_xy0	(0.0,0.5,0.5)}	+x,+y+1/2,−z+1/2
{m_0yz	(0.0,0.5,0.5)}	−x,+y+1/2,+z+1/2
{2_0y0	(0.0,0.0,0.0)}	−x,+y,−z
{1	(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z

```
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,−z+1/2 |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {2_0y0|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,−z |
+---------------------+-----------------+
```
....

```
**********************
space group: 41:a−cb {'Hall': 'A −2ac −2ac', 'HM': ' A c 2 a'}
Crystal system: Orthorhombic
Setting: a−cb
+x,+y,+z
+x+1/2,+y,−z+1/2
−x+1/2,+y,+z+1/2
```
....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,−z+1/2 |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {2_0y0|(0.0,0.0,0.0)} |     −x,+y,−z     |
|    {1|(0.0,0.5,0.5)} | +x,+y+1/2,+z+1/2 |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,−z |
| {m_0yz|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,+z |
| {2_0y0|(0.0,0.5,0.5)} | −x,+y+1/2,−z+1/2 |
+---------------------+-----------------+
```
....

```
**********************
space group: 42 {'Hall': 'F 2 −2', 'HM': 'F m m 2'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
−x,+y,+z
```
....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |     −x,−y,+z     |
| {m_0yz|(0.0,0.0,0.0)} |     −x,+y,+z     |
| {m_x0z|(0.0,0.0,0.0)} |     +x,−y,+z     |
|    {1|(0.0,0.5,0.5)} | +x,+y+1/2,+z+1/2 |
| {2_00z|(0.0,0.5,0.5)} | −x,−y+1/2,+z+1/2 |
| {m_0yz|(0.0,0.5,0.5)} | −x,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.5,0.5)} | +x,−y+1/2,+z+1/2 |
|    {1|(0.5,0.0,0.5)} | +x+1/2,+y,+z+1/2 |
| {2_00z|(0.5,0.0,0.5)} | −x+1/2,−y,+z+1/2 |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,−y,+z+1/2 |
|    {1|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,+z |
| {2_00z|(0.5,0.5,0.0)} | −x+1/2,−y+1/2,+z |
| {m_0yz|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,+z |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,+z |
```

```
            +---------------------+-----------------+
...................

*********************
space group: 42:cab {'Hall': 'F -2 2', 'HM': 'F 2 m m'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y,-z
+x,-y,-z
...................
            +---------------------+-----------------+
            |        Seitz        |      Jones      |
            +---------------------+-----------------+
            |    {1|(0.0,0.0,0.0)}    |      +x,+y,+z        |
            | {m_xy0|(0.0,0.0,0.0)}   |      +x,+y,-z        |
            | {2_x00|(0.0,0.0,0.0)}   |      +x,-y,-z        |
            | {m_x0z|(0.0,0.0,0.0)}   |      +x,-y,+z        |
            |    {1|(0.0,0.5,0.5)}    |  +x,+y+1/2,+z+1/2    |
            | {m_xy0|(0.0,0.5,0.5)}   |  +x,+y+1/2,-z+1/2    |
            | {2_x00|(0.0,0.5,0.5)}   |  +x,-y+1/2,-z+1/2    |
            | {m_x0z|(0.0,0.5,0.5)}   |  +x,-y+1/2,+z+1/2    |
            |    {1|(0.5,0.0,0.5)}    |  +x+1/2,+y,+z+1/2    |
            | {m_xy0|(0.5,0.0,0.5)}   |  +x+1/2,+y,-z+1/2    |
            | {2_x00|(0.5,0.0,0.5)}   |  +x+1/2,-y,-z+1/2    |
            | {m_x0z|(0.5,0.0,0.5)}   |  +x+1/2,-y,+z+1/2    |
            |    {1|(0.5,0.5,0.0)}    |  +x+1/2,+y+1/2,+z    |
            | {m_xy0|(0.5,0.5,0.0)}   |  +x+1/2,+y+1/2,-z    |
            | {2_x00|(0.5,0.5,0.0)}   |  +x+1/2,-y+1/2,-z    |
            | {m_x0z|(0.5,0.5,0.0)}   |  +x+1/2,-y+1/2,+z    |
            +---------------------+-----------------+
...................

*********************
space group: 42:bca {'Hall': 'F -2 -2', 'HM': 'F m 2 m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y,-z
-x,+y,+z
...................
            +---------------------+-----------------+
            |        Seitz        |      Jones      |
            +---------------------+-----------------+
            |    {1|(0.0,0.0,0.0)}    |      +x,+y,+z        |
            | {m_xy0|(0.0,0.0,0.0)}   |      +x,+y,-z        |
            | {m_0yz|(0.0,0.0,0.0)}   |      -x,+y,+z        |
            | {2_0y0|(0.0,0.0,0.0)}   |      -x,+y,-z        |
            |    {1|(0.0,0.5,0.5)}    |  +x,+y+1/2,+z+1/2    |
            | {m_xy0|(0.0,0.5,0.5)}   |  +x,+y+1/2,-z+1/2    |
            | {m_0yz|(0.0,0.5,0.5)}   |  -x,+y+1/2,+z+1/2    |
            | {2_0y0|(0.0,0.5,0.5)}   |  -x,+y+1/2,-z+1/2    |
            |    {1|(0.5,0.0,0.5)}    |  +x+1/2,+y,+z+1/2    |
            | {m_xy0|(0.5,0.0,0.5)}   |  +x+1/2,+y,-z+1/2    |
```

```
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {2_0y0|(0.5,0.0,0.5)} | −x+1/2,+y,−z+1/2 |
|    {1|(0.5,0.5,0.0)}   | +x+1/2,+y+1/2,+z |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,−z |
| {m_0yz|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,+z |
| {2_0y0|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,−z |
+----------------------+------------------+
```
....

```
**********************
space group: 43 {'Hall': 'F 2 −2d', 'HM': 'F d d 2'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
−x+1/4,+y+1/4,+z+1/4
```
....

```
+-----------------------+---------------------+
|         Seitz         |        Jones        |
+-----------------------+---------------------+
|     {1|(0.0,0.0,0.0)}    |      +x,+y,+z        |
|   {2_00z|(0.0,0.0,0.0)}  |      −x,−y,+z        |
| {m_0yz|(0.25,0.25,0.25)} | −x+1/4,+y+1/4,+z+1/4 |
| {m_x0z|(0.75,0.75,0.25)} | +x+3/4,−y+3/4,+z+1/4 |
|     {1|(0.0,0.5,0.5)}    |    +x,+y+1/2,+z+1/2   |
|   {2_00z|(0.0,0.5,0.5)}  |    −x,−y+1/2,+z+1/2   |
| {m_0yz|(0.25,0.75,0.75)} | −x+1/4,+y+3/4,+z+3/4 |
| {m_x0z|(0.75,0.25,0.75)} | +x+3/4,−y+1/4,+z+3/4 |
|     {1|(0.5,0.0,0.5)}    |    +x+1/2,+y,+z+1/2   |
|   {2_00z|(0.5,0.0,0.5)}  |    −x+1/2,−y,+z+1/2   |
| {m_0yz|(0.75,0.25,0.75)} | −x+3/4,+y+1/4,+z+3/4 |
| {m_x0z|(0.25,0.75,0.75)} | +x+1/4,−y+3/4,+z+3/4 |
|     {1|(0.5,0.5,0.0)}    |    +x+1/2,+y+1/2,+z   |
|   {2_00z|(0.5,0.5,0.0)}  |    −x+1/2,−y+1/2,+z   |
| {m_0yz|(0.75,0.75,0.25)} | −x+3/4,+y+3/4,+z+1/4 |
| {m_x0z|(0.25,0.25,0.25)} | +x+1/4,−y+1/4,+z+1/4 |
+-----------------------+---------------------+
```
....

```
**********************
space group: 43:cab {'Hall': 'F −2d 2', 'HM': 'F 2 d d'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x+1/4,+y+1/4,−z+1/4
+x,−y,−z
```
....

```
+-----------------------+---------------------+
|         Seitz         |        Jones        |
+-----------------------+---------------------+
|     {1|(0.0,0.0,0.0)}    |      +x,+y,+z        |
| {m_xy0|(0.25,0.25,0.25)} | +x+1/4,+y+1/4,−z+1/4 |
|   {2_x00|(0.0,0.0,0.0)}  |      +x,−y,−z        |
| {m_x0z|(0.25,0.25,0.25)} | +x+1/4,−y+1/4,+z+1/4 |
|     {1|(0.0,0.5,0.5)}    |    +x,+y+1/2,+z+1/2   |
```

```
| {m_xy0|(0.25,0.75,0.75)} | +x+1/4,+y+3/4,−z+3/4 |
|  {2_x00|(0.0,0.5,0.5)}   |    +x,−y+1/2,−z+1/2  |
| {m_x0z|(0.25,0.75,0.75)} | +x+1/4,−y+3/4,+z+3/4 |
|    {1|(0.5,0.0,0.5)}     |    +x+1/2,+y,+z+1/2  |
| {m_xy0|(0.75,0.25,0.75)} | +x+3/4,+y+1/4,−z+3/4 |
|  {2_x00|(0.5,0.0,0.5)}   |    +x+1/2,−y,−z+1/2  |
| {m_x0z|(0.75,0.25,0.75)} | +x+3/4,−y+1/4,+z+3/4 |
|    {1|(0.5,0.5,0.0)}     |    +x+1/2,+y+1/2,+z  |
| {m_xy0|(0.75,0.75,0.25)} | +x+3/4,+y+3/4,−z+1/4 |
|  {2_x00|(0.5,0.5,0.0)}   |    +x+1/2,−y+1/2,−z  |
| {m_x0z|(0.75,0.75,0.25)} | +x+3/4,−y+3/4,+z+1/4 |
+--------------------------+----------------------+
```

....

```
**********************
space group: 43:bca {'Hall': 'F −2d −2d', 'HM': 'F d 2 d'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x+1/4,+y+1/4,−z+1/4
−x+1/4,+y+1/4,+z+1/4
```

....

```
+--------------------------+----------------------+
|          Seitz           |        Jones         |
+--------------------------+----------------------+
|     {1|(0.0,0.0,0.0)}    |       +x,+y,+z       |
| {m_xy0|(0.25,0.25,0.25)} | +x+1/4,+y+1/4,−z+1/4 |
| {m_0yz|(0.25,0.25,0.25)} | −x+1/4,+y+1/4,+z+1/4 |
|  {2_0y0|(0.5,0.5,0.0)}   |    −x+1/2,+y+1/2,−z  |
|    {1|(0.0,0.5,0.5)}     |    +x,+y+1/2,+z+1/2  |
| {m_xy0|(0.25,0.75,0.75)} | +x+1/4,+y+3/4,−z+3/4 |
| {m_0yz|(0.25,0.75,0.75)} | −x+1/4,+y+3/4,+z+3/4 |
|  {2_0y0|(0.5,0.0,0.5)}   |    −x+1/2,+y,−z+1/2  |
|    {1|(0.5,0.0,0.5)}     |    +x+1/2,+y,+z+1/2  |
| {m_xy0|(0.75,0.25,0.75)} | +x+3/4,+y+1/4,−z+3/4 |
| {m_0yz|(0.75,0.25,0.75)} | −x+3/4,+y+1/4,+z+3/4 |
|  {2_0y0|(0.0,0.5,0.5)}   |    −x,+y+1/2,−z+1/2  |
|    {1|(0.5,0.5,0.0)}     |    +x+1/2,+y+1/2,+z  |
| {m_xy0|(0.75,0.75,0.25)} | +x+3/4,+y+3/4,−z+1/4 |
| {m_0yz|(0.75,0.75,0.25)} | −x+3/4,+y+3/4,+z+1/4 |
|  {2_0y0|(0.0,0.0,0.0)}   |       −x,+y,−z       |
+--------------------------+----------------------+
```

....

```
**********************
space group: 44 {'Hall': 'I 2 −2', 'HM': 'I m m 2'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
−x,+y,+z
```

....

```
+----------------------+----------------------+
|        Seitz         |        Jones         |
+----------------------+----------------------+
```

```
|    {1|(0.0,0.0,0.0)}    |        +x,+y,+z        |
| {2_00z|(0.0,0.0,0.0)}   |        −x,−y,+z        |
| {m_0yz|(0.0,0.0,0.0)}   |        −x,+y,+z        |
| {m_x0z|(0.0,0.0,0.0)}   |        +x,−y,+z        |
|    {1|(0.5,0.5,0.5)}    | +x+1/2,+y+1/2,+z+1/2  |
| {2_00z|(0.5,0.5,0.5)}   | −x+1/2,−y+1/2,+z+1/2  |
| {m_0yz|(0.5,0.5,0.5)}   | −x+1/2,+y+1/2,+z+1/2  |
| {m_x0z|(0.5,0.5,0.5)}   | +x+1/2,−y+1/2,+z+1/2  |
+─────────────────────────+───────────────────────+
```

....

```
***********************
space group: 44:cab {'Hall': 'I −2 2', 'HM': 'I 2 m m'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y,−z
+x,−y,−z
```

....

```
+─────────────────────────+───────────────────────+
|          Seitz          |         Jones         |
+─────────────────────────+───────────────────────+
|    {1|(0.0,0.0,0.0)}    |        +x,+y,+z        |
| {m_xy0|(0.0,0.0,0.0)}   |        +x,+y,−z        |
| {2_x00|(0.0,0.0,0.0)}   |        +x,−y,−z        |
| {m_x0z|(0.0,0.0,0.0)}   |        +x,−y,+z        |
|    {1|(0.5,0.5,0.5)}    | +x+1/2,+y+1/2,+z+1/2  |
| {m_xy0|(0.5,0.5,0.5)}   | +x+1/2,+y+1/2,−z+1/2  |
| {2_x00|(0.5,0.5,0.5)}   | +x+1/2,−y+1/2,−z+1/2  |
| {m_x0z|(0.5,0.5,0.5)}   | +x+1/2,−y+1/2,+z+1/2  |
+─────────────────────────+───────────────────────+
```

....

```
***********************
space group: 44:bca {'Hall': 'I −2 −2', 'HM': 'I m 2 m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y,−z
−x,+y,+z
```

....

```
+─────────────────────────+───────────────────────+
|          Seitz          |         Jones         |
+─────────────────────────+───────────────────────+
|    {1|(0.0,0.0,0.0)}    |        +x,+y,+z        |
| {m_xy0|(0.0,0.0,0.0)}   |        +x,+y,−z        |
| {m_0yz|(0.0,0.0,0.0)}   |        −x,+y,+z        |
| {2_0y0|(0.0,0.0,0.0)}   |        −x,+y,−z        |
|    {1|(0.5,0.5,0.5)}    | +x+1/2,+y+1/2,+z+1/2  |
| {m_xy0|(0.5,0.5,0.5)}   | +x+1/2,+y+1/2,−z+1/2  |
| {m_0yz|(0.5,0.5,0.5)}   | −x+1/2,+y+1/2,+z+1/2  |
| {2_0y0|(0.5,0.5,0.5)}   | −x+1/2,+y+1/2,−z+1/2  |
+─────────────────────────+───────────────────────+
```

....

```
**********************
space group: 45 {'Hall': 'I 2 −2c', 'HM': 'I b a 2'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
−x,+y,+z+1/2
..................
+--------------------+--------------------+
|        Seitz       |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z      |
|  {2_00z|(0.0,0.0,0.0)}  |      −x,−y,+z      |
|  {m_0yz|(0.0,0.0,0.5)}  |    −x,+y,+z+1/2    |
|  {m_x0z|(0.0,0.0,0.5)}  |    +x,−y,+z+1/2    |
|    {1|(0.5,0.5,0.5)}    | +x+1/2,+y+1/2,+z+1/2 |
|  {2_00z|(0.5,0.5,0.5)}  | −x+1/2,−y+1/2,+z+1/2 |
|  {m_0yz|(0.5,0.5,0.0)}  |   −x+1/2,+y+1/2,+z   |
|  {m_x0z|(0.5,0.5,0.0)}  |   +x+1/2,−y+1/2,+z   |
+--------------------+--------------------+
..................

**********************
space group: 45:cab {'Hall': 'I −2a 2', 'HM': 'I 2 c b'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x+1/2,+y,−z
+x,−y,−z
..................
+--------------------+--------------------+
|        Seitz       |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z      |
|  {m_xy0|(0.5,0.0,0.0)}  |    +x+1/2,+y,−z    |
|  {2_x00|(0.0,0.0,0.0)}  |      +x,−y,−z      |
|  {m_x0z|(0.5,0.0,0.0)}  |    +x+1/2,−y,+z    |
|    {1|(0.5,0.5,0.5)}    | +x+1/2,+y+1/2,+z+1/2 |
|  {m_xy0|(0.0,0.5,0.5)}  |   +x,+y+1/2,−z+1/2   |
|  {2_x00|(0.5,0.5,0.5)}  | +x+1/2,−y+1/2,−z+1/2 |
|  {m_x0z|(0.0,0.5,0.5)}  |   +x,−y+1/2,+z+1/2   |
+--------------------+--------------------+
..................

**********************
space group: 45:bca {'Hall': 'I −2b −2b', 'HM': 'I c 2 a'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y+1/2,−z
−x,+y+1/2,+z
..................
+--------------------+--------------------+
|        Seitz       |        Jones       |
```

```
+---------------------+---------------------+
|   {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {m_xy0|(0.0,0.5,0.0)} |    +x,+y+1/2,-z    |
| {m_0yz|(0.0,0.5,0.0)} |    -x,+y+1/2,+z    |
| {2_0y0|(0.0,0.0,0.0)} |      -x,+y,-z       |
|   {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {m_xy0|(0.5,0.0,0.5)} |   +x+1/2,+y,-z+1/2  |
| {m_0yz|(0.5,0.0,0.5)} |   -x+1/2,+y,+z+1/2  |
| {2_0y0|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,-z+1/2 |
+---------------------+---------------------+
..................

*********************
space group: 46 {'Hall': 'I 2 -2a', 'HM': 'I m a 2'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
-x+1/2,+y,+z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|   {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z       |
| {m_0yz|(0.5,0.0,0.0)} |    -x+1/2,+y,+z    |
| {m_x0z|(0.5,0.0,0.0)} |    +x+1/2,-y,+z    |
|   {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,+z+1/2 |
| {m_0yz|(0.0,0.5,0.5)} |   -x,+y+1/2,+z+1/2  |
| {m_x0z|(0.0,0.5,0.5)} |   +x,-y+1/2,+z+1/2  |
+---------------------+---------------------+
..................

*********************
space group: 46:ba-c {'Hall': 'I 2 -2b', 'HM': ' I b m 2'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y,+z
-x,+y+1/2,+z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|   {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z       |
| {m_0yz|(0.0,0.5,0.0)} |    -x,+y+1/2,+z    |
| {m_x0z|(0.0,0.5,0.0)} |    +x,-y+1/2,+z    |
|   {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,+z+1/2 |
| {m_0yz|(0.5,0.0,0.5)} |   -x+1/2,+y,+z+1/2  |
| {m_x0z|(0.5,0.0,0.5)} |   +x+1/2,-y,+z+1/2  |
+---------------------+---------------------+
..................
```

```
**********************
space group: 46:cab {'Hall': 'I -2b 2', 'HM': 'I 2 m b'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
+x,+y+1/2,-z
+x,-y,-z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |       +x,+y,+z       |
|  {m_xy0|(0.0,0.5,0.0)} |     +x,+y+1/2,-z     |
|  {2_x00|(0.0,0.0,0.0)} |       +x,-y,-z       |
|  {m_x0z|(0.0,0.5,0.0)} |     +x,-y+1/2,+z     |
|    {1|(0.5,0.5,0.5)} |   +x+1/2,+y+1/2,+z+1/2 |
|  {m_xy0|(0.5,0.0,0.5)} |     +x+1/2,+y,-z+1/2   |
|  {2_x00|(0.5,0.5,0.5)} |   +x+1/2,-y+1/2,-z+1/2 |
|  {m_x0z|(0.5,0.0,0.5)} |     +x+1/2,-y,+z+1/2   |
+---------------------+---------------------+
..................


**********************
space group: 46:-cba {'Hall': 'I -2c 2', 'HM': ' I 2 c m'}
Crystal system: Orthorhombic
Setting: -cba
+x,+y,+z
+x,+y,-z+1/2
+x,-y,-z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |       +x,+y,+z       |
|  {m_xy0|(0.0,0.0,0.5)} |     +x,+y,-z+1/2     |
|  {2_x00|(0.0,0.0,0.0)} |       +x,-y,-z       |
|  {m_x0z|(0.0,0.0,0.5)} |     +x,-y,+z+1/2     |
|    {1|(0.5,0.5,0.5)} |   +x+1/2,+y+1/2,+z+1/2 |
|  {m_xy0|(0.5,0.5,0.0)} |     +x+1/2,+y+1/2,-z   |
|  {2_x00|(0.5,0.5,0.5)} |   +x+1/2,-y+1/2,-z+1/2 |
|  {m_x0z|(0.5,0.5,0.0)} |     +x+1/2,-y+1/2,+z   |
+---------------------+---------------------+
..................


**********************
space group: 46:bca {'Hall': 'I -2c -2c', 'HM': 'I c 2 m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
+x,+y,-z+1/2
-x,+y,+z+1/2
..................
+---------------------+---------------------+
```

```
|       Seitz          |         Jones        |
+----------------------+----------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {m_xy0|(0.0,0.0,0.5)}|    +x,+y,−z+1/2      |
| {m_0yz|(0.0,0.0,0.5)}|    −x,+y,+z+1/2      |
| {2_0y0|(0.0,0.0,0.0)}|      −x,+y,−z        |
|    {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {m_xy0|(0.5,0.5,0.0)}|   +x+1/2,+y+1/2,−z   |
| {m_0yz|(0.5,0.5,0.0)}|   −x+1/2,+y+1/2,+z   |
| {2_0y0|(0.5,0.5,0.5)}| −x+1/2,+y+1/2,−z+1/2 |
+----------------------+----------------------+
```
....

```
**********************
```
space group: 46:a−cb {'Hall': 'I −2a −2a', 'HM': ' I m 2 a'}
Crystal system: Orthorhombic
Setting: a−cb
+x,+y,+z
+x+1/2,+y,−z
−x+1/2,+y,+z

....

```
|       Seitz          |         Jones        |
+----------------------+----------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {m_xy0|(0.5,0.0,0.0)}|    +x+1/2,+y,−z      |
| {m_0yz|(0.5,0.0,0.0)}|    −x+1/2,+y,+z      |
| {2_0y0|(0.0,0.0,0.0)}|      −x,+y,−z        |
|    {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {m_xy0|(0.0,0.5,0.5)}|   +x,+y+1/2,−z+1/2   |
| {m_0yz|(0.0,0.5,0.5)}|   −x,+y+1/2,+z+1/2   |
| {2_0y0|(0.5,0.5,0.5)}| −x+1/2,+y+1/2,−z+1/2 |
+----------------------+----------------------+
```
....

```
**********************
```
space group: 47 {'Hall': ' −P 2 2', 'HM': 'P m m m'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
+x,−y,−z

....

```
|       Seitz          |   Jones   |
+----------------------+-----------+
|    {1|(0.0,0.0,0.0)} | +x,+y,+z  |
| {2_00z|(0.0,0.0,0.0)}| −x,−y,+z  |
| {2_x00|(0.0,0.0,0.0)}| +x,−y,−z  |
| {2_0y0|(0.0,0.0,0.0)}| −x,+y,−z  |
|   {−1|(0.0,0.0,0.0)} | −x,−y,−z  |
| {m_xy0|(0.0,0.0,0.0)}| +x,+y,−z  |
| {m_0yz|(0.0,0.0,0.0)}| −x,+y,+z  |
| {m_x0z|(0.0,0.0,0.0)}| +x,−y,+z  |
+----------------------+-----------+
```

....

****
space group: 48:1 {'Hall': 'P 2 2 −1n', 'HM': 'P n n n:1'}
Crystal system: Orthorhombic
Setting: 1
+x,+y,+z
−x,−y,+z
+x,−y,−z
−x+1/2,−y+1/2,−z+1/2
....
```
+----------------------+----------------------+
|        Seitz         |        Jones         |
+----------------------+----------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {2_00z|(0.0,0.0,0.0)}|      −x,−y,+z        |
| {2_x00|(0.0,0.0,0.0)}|      +x,−y,−z        |
|    {−1|(0.5,0.5,0.5)}| −x+1/2,−y+1/2,−z+1/2 |
+----------------------+----------------------+
```
....

****
space group: 48:2 {'Hall': ' −P 2ab 2bc', 'HM': 'P n n n:2'}
Crystal system: Orthorhombic
Setting: 2
+x,+y,+z
−x+1/2,−y+1/2,+z
+x,−y+1/2,−z+1/2
....
```
+----------------------+------------------+
|        Seitz         |      Jones       |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.5,0.5,0.0)}| −x+1/2,−y+1/2,+z |
| {2_x00|(0.0,0.5,0.5)}| +x,−y+1/2,−z+1/2 |
| {2_0y0|(0.5,0.0,0.5)}| −x+1/2,+y,−z+1/2 |
|    {−1|(0.0,0.0,0.0)}|     −x,−y,−z     |
| {m_xy0|(0.5,0.5,0.0)}| +x+1/2,+y+1/2,−z |
| {m_0yz|(0.0,0.5,0.5)}| −x,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.0,0.5)}| +x+1/2,−y,+z+1/2 |
+----------------------+------------------+
```
....

****
space group: 49 {'Hall': ' −P 2 2c', 'HM': 'P c c m'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
+x,−y,−z+1/2
....
```
+----------------------+--------------+
|        Seitz         |    Jones     |
+----------------------+--------------+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z   |
```

```
| {2_00z|(0.0,0.0,0.0)} |   -x,-y,+z    |
| {2_x00|(0.0,0.0,0.5)} |  +x,-y,-z+1/2 |
| {2_0y0|(0.0,0.0,0.5)} |  -x,+y,-z+1/2 |
|   {-1|(0.0,0.0,0.0)}  |   -x,-y,-z    |
| {m_xy0|(0.0,0.0,0.0)} |   +x,+y,-z    |
| {m_0yz|(0.0,0.0,0.5)} |  -x,+y,+z+1/2 |
| {m_x0z|(0.0,0.0,0.5)} |  +x,-y,+z+1/2 |
+-----------------------+---------------+
```

....

```
***********************
space group: 49:cab {'Hall': ' -P 2a 2', 'HM': 'P m a a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
-x+1/2,-y,+z
+x,-y,-z
```
....
```
+-----------------------+---------------+
|         Seitz         |     Jones     |
+-----------------------+---------------+
|    {1|(0.0,0.0,0.0)}  |    +x,+y,+z   |
| {2_00z|(0.5,0.0,0.0)} |  -x+1/2,-y,+z |
| {2_x00|(0.0,0.0,0.0)} |    +x,-y,-z   |
| {2_0y0|(0.5,0.0,0.0)} |  -x+1/2,+y,-z |
|    {-1|(0.0,0.0,0.0)} |    -x,-y,-z   |
| {m_xy0|(0.5,0.0,0.0)} |  +x+1/2,+y,-z |
| {m_0yz|(0.0,0.0,0.0)} |    -x,+y,+z   |
| {m_x0z|(0.5,0.0,0.0)} |  +x+1/2,-y,+z |
+-----------------------+---------------+
```
....

```
***********************
space group: 49:bca {'Hall': ' -P 2b 2b', 'HM': 'P b m b'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
-x,-y+1/2,+z
+x,-y+1/2,-z
```
....
```
+-----------------------+---------------+
|         Seitz         |     Jones     |
+-----------------------+---------------+
|    {1|(0.0,0.0,0.0)}  |    +x,+y,+z   |
| {2_00z|(0.0,0.5,0.0)} |  -x,-y+1/2,+z |
| {2_x00|(0.0,0.5,0.0)} |  +x,-y+1/2,-z |
| {2_0y0|(0.0,0.0,0.0)} |    -x,+y,-z   |
|    {-1|(0.0,0.0,0.0)} |    -x,-y,-z   |
| {m_xy0|(0.0,0.5,0.0)} |  +x,+y+1/2,-z |
| {m_0yz|(0.0,0.5,0.0)} |  -x,+y+1/2,+z |
| {m_x0z|(0.0,0.0,0.0)} |    +x,-y,+z   |
+-----------------------+---------------+
```
....

```
***********************
space group: 50:1 {'Hall': 'P 2 2 -1ab', 'HM': 'P b a n:1'}
Crystal system: Orthorhombic
Setting: 1
+x,+y,+z
-x,-y,+z
+x,-y,-z
-x+1/2,-y+1/2,-z
...................
+----------------------+-----------------+
|         Seitz        |      Jones      |
+----------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z    |
| {2_00z|(0.0,0.0,0.0)}|     -x,-y,+z    |
| {2_x00|(0.0,0.0,0.0)}|     +x,-y,-z    |
|   {-1|(0.5,0.5,0.0)} | -x+1/2,-y+1/2,-z|
+----------------------+-----------------+

...................

***********************
space group: 50:2 {'Hall': ' -P 2ab 2b', 'HM': 'P b a n:2'}
Crystal system: Orthorhombic
Setting: 2
+x,+y,+z
-x+1/2,-y+1/2,+z
+x,-y+1/2,-z
...................
+----------------------+------------------+
|         Seitz        |      Jones       |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.5,0.5,0.0)}| -x+1/2,-y+1/2,+z |
| {2_x00|(0.0,0.5,0.0)}|   +x,-y+1/2,-z   |
| {2_0y0|(0.5,0.0,0.0)}|   -x+1/2,+y,-z   |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
| {m_xy0|(0.5,0.5,0.0)}| +x+1/2,+y+1/2,-z |
| {m_0yz|(0.0,0.5,0.0)}|   -x,+y+1/2,+z   |
| {m_x0z|(0.5,0.0,0.0)}|   +x+1/2,-y,+z   |
+----------------------+------------------+
...................

***********************
space group: 50:1cab {'Hall': 'P 2 2 -1bc', 'HM': ' P n c b:1'}
Crystal system: Orthorhombic
Setting: 1cab
+x,+y,+z
-x,-y,+z
+x,-y,-z
-x,-y+1/2,-z+1/2
...................
+----------------------+------------------+
|         Seitz        |      Jones       |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
```

```
| {2_00z|(0.0,0.0,0.0)} |     −x,−y,+z      |
| {2_x00|(0.0,0.0,0.0)} |     +x,−y,−z      |
|   {−1|(0.0,0.5,0.5)}  | −x,−y+1/2,−z+1/2 |
+──────────────────────+─────────────────+
```
....

```
**********************
space group: 50:2cab {'Hall': ' −P 2b 2bc', 'HM': ' P n c b:2'}
Crystal system: Orthorhombic
Setting: 2cab
+x,+y,+z
−x,−y+1/2,+z
+x,−y+1/2,−z+1/2
```
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.5,0.0)}	−x,−y+1/2,+z
{2_x00|(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2
{2_0y0|(0.0,0.0,0.5)}	−x,+y,−z+1/2
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0|(0.0,0.5,0.0)}	+x,+y+1/2,−z
{m_0yz|(0.0,0.5,0.5)}	−x,+y+1/2,+z+1/2
{m_x0z|(0.0,0.0,0.5)}	+x,−y,+z+1/2

....

```
**********************
space group: 50:1bca {'Hall': 'P 2 2 −1ac', 'HM': ' P c n a:1'}
Crystal system: Orthorhombic
Setting: 1bca
+x,+y,+z
−x,−y,+z
+x,−y,−z
−x+1/2,−y,−z+1/2
```
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{−1|(0.5,0.0,0.5)}	−x+1/2,−y,−z+1/2

....

```
**********************
space group: 50:2bca {'Hall': ' −P 2a 2c', 'HM': ' P c n a:2'}
Crystal system: Orthorhombic
Setting: 2bca
+x,+y,+z
−x+1/2,−y,+z
+x,−y,−z+1/2
```

....
```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z      |
| {2_00z|(0.5,0.0,0.0)} |   −x+1/2,−y,+z   |
| {2_x00|(0.0,0.0,0.5)} |   +x,−y,−z+1/2   |
| {2_0y0|(0.5,0.0,0.5)} | −x+1/2,+y,−z+1/2 |
|   {−1|(0.0,0.0,0.0)} |    −x,−y,−z      |
| {m_xy0|(0.5,0.0,0.0)} |   +x+1/2,+y,−z   |
| {m_0yz|(0.0,0.0,0.5)} |   −x,+y,+z+1/2   |
| {m_x0z|(0.5,0.0,0.5)} |  +x+1/2,−y,+z+1/2 |
+---------------------+-----------------+
```
....

```
**********************
```
space group: 51 {'Hall': ' −P 2a 2a', 'HM': 'P m m a'}
Crystal system: Orthorhombic
+x,+y,+z
−x+1/2,−y,+z
+x+1/2,−y,−z
....
```
+---------------------+-------------+
|        Seitz        |    Jones    |
+---------------------+-------------+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z   |
| {2_00z|(0.5,0.0,0.0)} | −x+1/2,−y,+z |
| {2_x00|(0.5,0.0,0.0)} | +x+1/2,−y,−z |
| {2_0y0|(0.0,0.0,0.0)} |   −x,+y,−z   |
|   {−1|(0.0,0.0,0.0)} |   −x,−y,−z   |
| {m_xy0|(0.5,0.0,0.0)} | +x+1/2,+y,−z |
| {m_0yz|(0.5,0.0,0.0)} | −x+1/2,+y,+z |
| {m_x0z|(0.0,0.0,0.0)} |   +x,−y,+z   |
+---------------------+-------------+
```
....

```
**********************
```
space group: 51:ba−c {'Hall': ' −P 2b 2', 'HM': ' P m m b'}
Crystal system: Orthorhombic
Setting: ba−c
+x,+y,+z
−x,−y+1/2,+z
+x,−y,−z
....
```
+---------------------+-------------+
|        Seitz        |    Jones    |
+---------------------+-------------+
|    {1|(0.0,0.0,0.0)} |   +x,+y,+z   |
| {2_00z|(0.0,0.5,0.0)} | −x,−y+1/2,+z |
| {2_x00|(0.0,0.0,0.0)} |   +x,−y,−z   |
| {2_0y0|(0.0,0.5,0.0)} | −x,+y+1/2,−z |
|   {−1|(0.0,0.0,0.0)} |   −x,−y,−z   |
| {m_xy0|(0.0,0.5,0.0)} | +x,+y+1/2,−z |
| {m_0yz|(0.0,0.0,0.0)} |   −x,+y,+z   |
```

```
| {m_x0z|(0.0,0.5,0.0)} | +x,−y+1/2,+z |
+---------------------+-------------+
```

....

```
**********************
space group: 51:cab {'Hall': ' −P 2 2b', 'HM': 'P b m m'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x,−y,+z
+x,−y+1/2,−z
```

....

```
+---------------------+-------------+
|         Seitz       |    Jones    |
+---------------------+-------------+
|     {1|(0.0,0.0,0.0)}   |   +x,+y,+z   |
| {2_00z|(0.0,0.0,0.0)}   |   −x,−y,+z   |
| {2_x00|(0.0,0.5,0.0)}   | +x,−y+1/2,−z |
| {2_0y0|(0.0,0.5,0.0)}   | −x,+y+1/2,−z |
|    {−1|(0.0,0.0,0.0)}   |   −x,−y,−z   |
| {m_xy0|(0.0,0.0,0.0)}   |   +x,+y,−z   |
| {m_0yz|(0.0,0.5,0.0)}   | −x,+y+1/2,+z |
| {m_x0z|(0.0,0.5,0.0)}   | +x,−y+1/2,+z |
+---------------------+-------------+
```

....

```
**********************
space group: 51:−cba {'Hall': ' −P 2c 2c', 'HM': ' P c m m'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
−x,−y,+z+1/2
+x,−y,−z+1/2
```

....

```
+---------------------+-------------+
|         Seitz       |    Jones    |
+---------------------+-------------+
|     {1|(0.0,0.0,0.0)}   |   +x,+y,+z   |
| {2_00z|(0.0,0.0,0.5)}   | −x,−y,+z+1/2 |
| {2_x00|(0.0,0.0,0.5)}   | +x,−y,−z+1/2 |
| {2_0y0|(0.0,0.0,0.0)}   |   −x,+y,−z   |
|    {−1|(0.0,0.0,0.0)}   |   −x,−y,−z   |
| {m_xy0|(0.0,0.0,0.5)}   | +x,+y,−z+1/2 |
| {m_0yz|(0.0,0.0,0.5)}   | −x,+y,+z+1/2 |
| {m_x0z|(0.0,0.0,0.0)}   |   +x,−y,+z   |
+---------------------+-------------+
```

....

```
**********************
space group: 51:bca {'Hall': ' −P 2c 2', 'HM': 'P m c m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
−x,−y,+z+1/2
```

+x,−y,−z
....
```
+--------------------+-------------+
|       Seitz        |    Jones    |
+--------------------+-------------+
|    {1|(0.0,0.0,0.0)}   |   +x,+y,+z   |
| {2_00z|(0.0,0.0,0.5)}  | −x,−y,+z+1/2 |
| {2_x00|(0.0,0.0,0.0)}  |   +x,−y,−z   |
| {2_0y0|(0.0,0.0,0.5)}  | −x,+y,−z+1/2 |
|   {−1|(0.0,0.0,0.0)}   |   −x,−y,−z   |
| {m_xy0|(0.0,0.0,0.5)}  | +x,+y,−z+1/2 |
| {m_0yz|(0.0,0.0,0.0)}  |   −x,+y,+z   |
| {m_x0z|(0.0,0.0,0.5)}  | +x,−y,+z+1/2 |
+--------------------+-------------+
```
....

```
**********************
space group: 51:a−cb {'Hall': ' −P 2 2a', 'HM': ' P m a m'}
Crystal system: Orthorhombic
Setting: a−cb
+x,+y,+z
−x,−y,+z
+x+1/2,−y,−z
```
....
```
+--------------------+-------------+
|       Seitz        |    Jones    |
+--------------------+-------------+
|    {1|(0.0,0.0,0.0)}   |   +x,+y,+z   |
| {2_00z|(0.0,0.0,0.0)}  |   −x,−y,+z   |
| {2_x00|(0.5,0.0,0.0)}  | +x+1/2,−y,−z |
| {2_0y0|(0.5,0.0,0.0)}  | −x+1/2,+y,−z |
|   {−1|(0.0,0.0,0.0)}   |   −x,−y,−z   |
| {m_xy0|(0.0,0.0,0.0)}  |   +x,+y,−z   |
| {m_0yz|(0.5,0.0,0.0)}  | −x+1/2,+y,+z |
| {m_x0z|(0.5,0.0,0.0)}  | +x+1/2,−y,+z |
+--------------------+-------------+
```
....

```
**********************
space group: 52 {'Hall': ' −P 2a 2bc', 'HM': 'P n n a'}
Crystal system: Orthorhombic
+x,+y,+z
−x+1/2,−y,+z
+x,−y+1/2,−z+1/2
```
....
```
+--------------------+--------------------+
|       Seitz        |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z       |
| {2_00z|(0.5,0.0,0.0)}  |    −x+1/2,−y,+z     |
| {2_x00|(0.0,0.5,0.5)}  |  +x,−y+1/2,−z+1/2   |
| {2_0y0|(0.5,0.5,0.5)}  | −x+1/2,+y+1/2,−z+1/2 |
|   {−1|(0.0,0.0,0.0)}   |      −x,−y,−z       |
| {m_xy0|(0.5,0.0,0.0)}  |    +x+1/2,+y,−z     |
```

```
| {m_0yz|(0.0,0.5,0.5)} |    −x,+y+1/2,+z+1/2    |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2 |
+--------------------+--------------------+
```
....

```
**********************
space group: 52:ba−c {'Hall': ' −P 2b 2n', 'HM': ' P n n b'}
Crystal system: Orthorhombic
Setting: ba−c
+x,+y,+z
−x,−y+1/2,+z
+x+1/2,−y+1/2,−z+1/2
```
....

```
+--------------------+--------------------+
|        Seitz        |        Jones        |
+--------------------+--------------------+
|     {1|(0.0,0.0,0.0)}    |        +x,+y,+z        |
| {2_00z|(0.0,0.5,0.0)} |      −x,−y+1/2,+z      |
| {2_x00|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,−z+1/2 |
| {2_0y0|(0.5,0.0,0.5)} |   −x+1/2,+y,−z+1/2   |
|    {−1|(0.0,0.0,0.0)}    |        −x,−y,−z        |
| {m_xy0|(0.0,0.5,0.0)} |      +x,+y+1/2,−z      |
| {m_0yz|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.0,0.5)} |    +x+1/2,−y,+z+1/2   |
+--------------------+--------------------+
```
....

```
**********************
space group: 52:cab {'Hall': ' −P 2n 2b', 'HM': 'P b n n'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x+1/2,−y+1/2,+z+1/2
+x,−y+1/2,−z
```
....

```
+--------------------+--------------------+
|        Seitz        |        Jones        |
+--------------------+--------------------+
|     {1|(0.0,0.0,0.0)}    |        +x,+y,+z        |
| {2_00z|(0.5,0.5,0.5)} | −x+1/2,−y+1/2,+z+1/2 |
| {2_x00|(0.0,0.5,0.0)} |      +x,−y+1/2,−z      |
| {2_0y0|(0.5,0.0,0.5)} |   −x+1/2,+y,−z+1/2   |
|    {−1|(0.0,0.0,0.0)}    |        −x,−y,−z        |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,−z+1/2 |
| {m_0yz|(0.0,0.5,0.0)} |      −x,+y+1/2,+z      |
| {m_x0z|(0.5,0.0,0.5)} |    +x+1/2,−y,+z+1/2   |
+--------------------+--------------------+
```
....

```
**********************
space group: 52:−cba {'Hall': ' −P 2ab 2c', 'HM': ' P c n n'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
```

−x+1/2,−y+1/2,+z
+x,−y,−z+1/2
....

```
+--------------------+--------------------+
|        Seitz       |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}   |       +x,+y,+z      |
| {2_00z|(0.5,0.5,0.0)}  |   −x+1/2,−y+1/2,+z   |
| {2_x00|(0.0,0.0,0.5)}  |     +x,−y,−z+1/2     |
| {2_0y0|(0.5,0.5,0.5)}  | −x+1/2,+y+1/2,−z+1/2 |
|   {−1|(0.0,0.0,0.0)}   |       −x,−y,−z       |
| {m_xy0|(0.5,0.5,0.0)}  |   +x+1/2,+y+1/2,−z   |
| {m_0yz|(0.0,0.0,0.5)}  |     −x,+y,+z+1/2     |
| {m_x0z|(0.5,0.5,0.5)}  | +x+1/2,−y+1/2,+z+1/2 |
+--------------------+--------------------+
```

....

****
space group: 52:bca {'Hall': ' −P 2ab 2n', 'HM': 'P n c n'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
−x+1/2,−y+1/2,+z
+x+1/2,−y+1/2,−z+1/2
....

```
+--------------------+--------------------+
|        Seitz       |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}   |       +x,+y,+z      |
| {2_00z|(0.5,0.5,0.0)}  |   −x+1/2,−y+1/2,+z   |
| {2_x00|(0.5,0.5,0.5)}  | +x+1/2,−y+1/2,−z+1/2 |
| {2_0y0|(0.0,0.0,0.5)}  |     −x,+y,−z+1/2     |
|   {−1|(0.0,0.0,0.0)}   |       −x,−y,−z       |
| {m_xy0|(0.5,0.5,0.0)}  |   +x+1/2,+y+1/2,−z   |
| {m_0yz|(0.5,0.5,0.5)}  | −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.0,0.5)}  |     +x,−y,+z+1/2     |
+--------------------+--------------------+
```

....

****
space group: 52:a-cb {'Hall': ' −P 2n 2bc', 'HM': ' P n a n'}
Crystal system: Orthorhombic
Setting: a-cb
+x,+y,+z
−x+1/2,−y+1/2,+z+1/2
+x,−y+1/2,−z+1/2
....

```
+--------------------+--------------------+
|        Seitz       |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}   |       +x,+y,+z      |
| {2_00z|(0.5,0.5,0.5)}  | −x+1/2,−y+1/2,+z+1/2 |
| {2_x00|(0.0,0.5,0.5)}  |     +x,−y+1/2,−z+1/2 |
| {2_0y0|(0.5,0.0,0.0)}  |     −x+1/2,+y,−z     |
```

```
|    {-1|(0.0,0.0,0.0)}  |       -x,-y,-z         |
| {m_xy0|(0.5,0.5,0.5)}  | +x+1/2,+y+1/2,-z+1/2  |
| {m_0yz|(0.0,0.5,0.5)}  |   -x,+y+1/2,+z+1/2    |
| {m_x0z|(0.5,0.0,0.0)}  |     +x+1/2,-y,+z       |
+--------------------+--------------------+
```
....

```
**********************
space group: 53 {'Hall': ' -P 2ac 2', 'HM': 'P m n a'}
Crystal system: Orthorhombic
+x,+y,+z
-x+1/2,-y,+z+1/2
+x,-y,-z
```
....

```
+--------------------+-----------------+
|        Seitz       |      Jones      |
+--------------------+-----------------+
|    {1|(0.0,0.0,0.0)}   |     +x,+y,+z     |
| {2_00z|(0.5,0.0,0.5)}  | -x+1/2,-y,+z+1/2 |
| {2_x00|(0.0,0.0,0.0)}  |     +x,-y,-z     |
| {2_0y0|(0.5,0.0,0.5)}  | -x+1/2,+y,-z+1/2 |
|    {-1|(0.0,0.0,0.0)}  |     -x,-y,-z     |
| {m_xy0|(0.5,0.0,0.5)}  | +x+1/2,+y,-z+1/2 |
| {m_0yz|(0.0,0.0,0.0)}  |     -x,+y,+z     |
| {m_x0z|(0.5,0.0,0.5)}  | +x+1/2,-y,+z+1/2 |
+--------------------+-----------------+
```
....

```
**********************
space group: 53:ba-c {'Hall': ' -P 2bc 2bc', 'HM': ' P n m b'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y+1/2,+z+1/2
+x,-y+1/2,-z+1/2
```
....

```
+--------------------+-----------------+
|        Seitz       |      Jones      |
+--------------------+-----------------+
|    {1|(0.0,0.0,0.0)}   |     +x,+y,+z     |
| {2_00z|(0.0,0.5,0.5)}  | -x,-y+1/2,+z+1/2 |
| {2_x00|(0.0,0.5,0.5)}  | +x,-y+1/2,-z+1/2 |
| {2_0y0|(0.0,0.0,0.0)}  |     -x,+y,-z     |
|    {-1|(0.0,0.0,0.0)}  |     -x,-y,-z     |
| {m_xy0|(0.0,0.5,0.5)}  | +x,+y+1/2,-z+1/2 |
| {m_0yz|(0.0,0.5,0.5)}  | -x,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.0,0.0)}  |     +x,-y,+z     |
+--------------------+-----------------+
```
....

```
**********************
space group: 53:cab {'Hall': ' -P 2ab 2ab', 'HM': 'P b m n'}
Crystal system: Orthorhombic
Setting: cab
```

```
+x,+y,+z
−x+1/2,−y+1/2,+z
+x+1/2,−y+1/2,−z
..................
+--------------------+-----------------+
|       Seitz        |      Jones      |
+--------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.5,0.5,0.0)} | −x+1/2,−y+1/2,+z |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,−z |
| {2_0y0|(0.0,0.0,0.0)} |     −x,+y,−z     |
|    {−1|(0.0,0.0,0.0)} |     −x,−y,−z     |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,−z |
| {m_0yz|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,+z |
| {m_x0z|(0.0,0.0,0.0)} |     +x,−y,+z     |
+--------------------+-----------------+
..................


**********************
space group: 53:−cba {'Hall': ' −P 2 2ac', 'HM': ' P c n m'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
−x,−y,+z
+x+1/2,−y,−z+1/2
..................
+--------------------+-----------------+
|       Seitz        |      Jones      |
+--------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |     −x,−y,+z     |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,−y,−z+1/2 |
| {2_0y0|(0.5,0.0,0.5)} | −x+1/2,+y,−z+1/2 |
|    {−1|(0.0,0.0,0.0)} |     −x,−y,−z     |
| {m_xy0|(0.0,0.0,0.0)} |     +x,+y,−z     |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,−y,+z+1/2 |
+--------------------+-----------------+
..................


**********************
space group: 53:bca {'Hall': ' −P 2 2bc', 'HM': 'P n c m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
−x,−y,+z
+x,−y+1/2,−z+1/2
..................
+--------------------+-----------------+
|       Seitz        |      Jones      |
+--------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |     −x,−y,+z     |
| {2_x00|(0.0,0.5,0.5)} | +x,−y+1/2,−z+1/2 |
```

```
| {2_0y0|(0.0,0.5,0.5)} | −x,+y+1/2,−z+1/2 |
|    {−1|(0.0,0.0,0.0)} |    −x,−y,−z     |
| {m_xy0|(0.0,0.0,0.0)} |    +x,+y,−z     |
| {m_0yz|(0.0,0.5,0.5)} | −x,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.5,0.5)} | +x,−y+1/2,+z+1/2 |
+----------------------+------------------+
..................

*********************
space group: 53:a-cb {'Hall': ' −P 2ab 2', 'HM': ' P m a n'}
Crystal system: Orthorhombic
Setting: a-cb
+x,+y,+z
−x+1/2,−y+1/2,+z
+x,−y,−z
..................
+----------------------+------------------+
|        Seitz         |      Jones       |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z     |
| {2_00z|(0.5,0.5,0.0)} | −x+1/2,−y+1/2,+z |
| {2_x00|(0.0,0.0,0.0)} |    +x,−y,−z     |
| {2_0y0|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,−z |
|    {−1|(0.0,0.0,0.0)} |    −x,−y,−z     |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,−z |
| {m_0yz|(0.0,0.0,0.0)} |    −x,+y,+z     |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,+z |
+----------------------+------------------+
..................

*********************
space group: 54 {'Hall': ' −P 2a 2ac', 'HM': 'P c c a'}
Crystal system: Orthorhombic
+x,+y,+z
−x+1/2,−y,+z
+x+1/2,−y,−z+1/2
..................
+----------------------+------------------+
|        Seitz         |      Jones       |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z     |
| {2_00z|(0.5,0.0,0.0)} |  −x+1/2,−y,+z   |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,−y,−z+1/2 |
| {2_0y0|(0.0,0.0,0.5)} |  −x,+y,−z+1/2   |
|    {−1|(0.0,0.0,0.0)} |    −x,−y,−z     |
| {m_xy0|(0.5,0.0,0.0)} |  +x+1/2,+y,−z   |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {m_x0z|(0.0,0.0,0.5)} |  +x,−y,+z+1/2   |
+----------------------+------------------+
..................

*********************
space group: 54:ba-c {'Hall': ' −P 2b 2c', 'HM': ' P c c b'}
Crystal system: Orthorhombic
```

Setting: ba-c
+x,+y,+z
-x,-y+1/2,+z
+x,-y,-z+1/2
....
+----------------------+------------------+
| Seitz | Jones |
+----------------------+------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.0,0.5,0.0)}	-x,-y+1/2,+z
{2_x00	(0.0,0.0,0.5)}	+x,-y,-z+1/2
{2_0y0	(0.0,0.5,0.5)}	-x,+y+1/2,-z+1/2
{-1	(0.0,0.0,0.0)}	-x,-y,-z
{m_xy0	(0.0,0.5,0.0)}	+x,+y+1/2,-z
{m_0yz	(0.0,0.0,0.5)}	-x,+y,+z+1/2
{m_x0z	(0.0,0.5,0.5)}	+x,-y+1/2,+z+1/2
+----------------------+------------------+

....

****
space group: 54:cab {'Hall': ' -P 2a 2b', 'HM': 'P b a a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
-x+1/2,-y,+z
+x,-y+1/2,-z
....
+----------------------+------------------+
| Seitz | Jones |
+----------------------+------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.5,0.0,0.0)}	-x+1/2,-y,+z
{2_x00	(0.0,0.5,0.0)}	+x,-y+1/2,-z
{2_0y0	(0.5,0.5,0.0)}	-x+1/2,+y+1/2,-z
{-1	(0.0,0.0,0.0)}	-x,-y,-z
{m_xy0	(0.5,0.0,0.0)}	+x+1/2,+y,-z
{m_0yz	(0.0,0.5,0.0)}	-x,+y+1/2,+z
{m_x0z	(0.5,0.5,0.0)}	+x+1/2,-y+1/2,+z
+----------------------+------------------+
....

****
space group: 54:-cba {'Hall': ' -P 2ac 2c', 'HM': ' P c a a'}
Crystal system: Orthorhombic
Setting: -cba
+x,+y,+z
-x+1/2,-y,+z+1/2
+x,-y,-z+1/2
....
+----------------------+------------------+
| Seitz | Jones |
+----------------------+------------------+
| {1|(0.0,0.0,0.0)} | +x,+y,+z |
| {2_00z|(0.5,0.0,0.5)} | -x+1/2,-y,+z+1/2 |

```
| {2_x00|(0.0,0.0,0.5)} |   +x,−y,−z+1/2    |
| {2_0y0|(0.5,0.0,0.0)} |   −x+1/2,+y,−z    |
|   {−1|(0.0,0.0,0.0)}  |     −x,−y,−z      |
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,−z+1/2 |
| {m_0yz|(0.0,0.0,0.5)} |   −x,+y,+z+1/2    |
| {m_x0z|(0.5,0.0,0.0)} |   +x+1/2,−y,+z    |
+----------------------+------------------+
```

....

```
**********************
space group: 54:bca {'Hall': ' −P 2bc 2b', 'HM': 'P b c b'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
−x,−y+1/2,+z+1/2
+x,−y+1/2,−z
```

....

```
+----------------------+------------------+
|         Seitz        |       Jones      |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)}  |     +x,+y,+z      |
| {2_00z|(0.0,0.5,0.5)} | −x,−y+1/2,+z+1/2 |
| {2_x00|(0.0,0.5,0.0)} |   +x,−y+1/2,−z    |
| {2_0y0|(0.0,0.0,0.5)} |   −x,+y,−z+1/2    |
|    {−1|(0.0,0.0,0.0)}  |     −x,−y,−z      |
| {m_xy0|(0.0,0.5,0.5)} | +x,+y+1/2,−z+1/2 |
| {m_0yz|(0.0,0.5,0.0)} |   −x,+y+1/2,+z    |
| {m_x0z|(0.0,0.0,0.5)} |   +x,−y,+z+1/2    |
+----------------------+------------------+
```

....

```
**********************
space group: 54:a−cb {'Hall': ' −P 2b 2ab', 'HM': ' P b a b'}
Crystal system: Orthorhombic
Setting: a−cb
+x,+y,+z
−x,−y+1/2,+z
+x+1/2,−y+1/2,−z
```

....

```
+----------------------+------------------+
|         Seitz        |       Jones      |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)}  |     +x,+y,+z      |
| {2_00z|(0.0,0.5,0.0)} |   −x,−y+1/2,+z    |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,−z |
| {2_0y0|(0.5,0.0,0.0)} |   −x+1/2,+y,−z    |
|    {−1|(0.0,0.0,0.0)}  |     −x,−y,−z      |
| {m_xy0|(0.0,0.5,0.0)} |   +x,+y+1/2,−z    |
| {m_0yz|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,+z |
| {m_x0z|(0.5,0.0,0.0)} |   +x+1/2,−y,+z    |
+----------------------+------------------+
```

....

```
**********************
```

space group: 55 {'Hall': ' -P 2 2ab', 'HM': 'P b a m'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
+x+1/2,-y+1/2,-z
....

```
+--------------------+-----------------+
|       Seitz        |      Jones      |
+--------------------+-----------------+
|    {1|(0.0,0.0,0.0)}    |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z     |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,-z |
| {2_0y0|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,-z |
|    {-1|(0.0,0.0,0.0)}    |     -x,-y,-z     |
| {m_xy0|(0.0,0.0,0.0)} |     +x,+y,-z     |
| {m_0yz|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,+z |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,+z |
+--------------------+-----------------+
```

....

****
space group: 55:cab {'Hall': ' -P 2bc 2', 'HM': 'P m c b'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
-x,-y+1/2,+z+1/2
+x,-y,-z
....

```
+--------------------+-----------------+
|       Seitz        |      Jones      |
+--------------------+-----------------+
|    {1|(0.0,0.0,0.0)}    |     +x,+y,+z     |
| {2_00z|(0.0,0.5,0.5)} | -x,-y+1/2,+z+1/2 |
| {2_x00|(0.0,0.0,0.0)} |     +x,-y,-z     |
| {2_0y0|(0.0,0.5,0.5)} | -x,+y+1/2,-z+1/2 |
|    {-1|(0.0,0.0,0.0)}    |     -x,-y,-z     |
| {m_xy0|(0.0,0.5,0.5)} | +x,+y+1/2,-z+1/2 |
| {m_0yz|(0.0,0.0,0.0)} |     -x,+y,+z     |
| {m_x0z|(0.0,0.5,0.5)} | +x,-y+1/2,+z+1/2 |
+--------------------+-----------------+
```

....

****
space group: 55:bca {'Hall': ' -P 2ac 2ac', 'HM': 'P c m a'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
-x+1/2,-y,+z+1/2
+x+1/2,-y,-z+1/2
....

```
+--------------------+-----------------+
|       Seitz        |      Jones      |
+--------------------+-----------------+
|    {1|(0.0,0.0,0.0)}    |     +x,+y,+z     |
```

```
| {2_00z|(0.5,0.0,0.5)} | −x+1/2,−y,+z+1/2 |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,−y,−z+1/2 |
| {2_0y0|(0.0,0.0,0.0)} |     −x,+y,−z     |
|    {−1|(0.0,0.0,0.0)} |     −x,−y,−z     |
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,−z+1/2 |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {m_x0z|(0.0,0.0,0.0)} |     +x,−y,+z     |
+───────────────────────+──────────────────+
```

....

```
**********************
space group: 56 {'Hall': ' −P 2ab 2ac', 'HM': 'P c c n'}
Crystal system: Orthorhombic
+x,+y,+z
−x+1/2,−y+1/2,+z
+x+1/2,−y,−z+1/2
```

....

```
+─────────────────────+──────────────────+
|        Seitz        |       Jones      |
+─────────────────────+──────────────────+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z     |
| {2_00z|(0.5,0.5,0.0)} | −x+1/2,−y+1/2,+z |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,−y,−z+1/2 |
| {2_0y0|(0.0,0.5,0.5)} | −x,+y+1/2,−z+1/2 |
|    {−1|(0.0,0.0,0.0)} |     −x,−y,−z     |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,−z |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {m_x0z|(0.0,0.5,0.5)} | +x,−y+1/2,+z+1/2 |
+─────────────────────+──────────────────+
```

....

```
**********************
space group: 56:cab {'Hall': ' −P 2ac 2bc', 'HM': 'P n a a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x+1/2,−y,+z+1/2
+x,−y+1/2,−z+1/2
```

....

```
+─────────────────────+──────────────────+
|        Seitz        |       Jones      |
+─────────────────────+──────────────────+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z     |
| {2_00z|(0.5,0.0,0.5)} | −x+1/2,−y,+z+1/2 |
| {2_x00|(0.0,0.5,0.5)} | +x,−y+1/2,−z+1/2 |
| {2_0y0|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,−z |
|    {−1|(0.0,0.0,0.0)} |     −x,−y,−z     |
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,−z+1/2 |
| {m_0yz|(0.0,0.5,0.5)} | −x,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,+z |
+─────────────────────+──────────────────+
```

....

```
**********************
```

space group: 56:bca {'Hall': ' -P 2bc 2ab', 'HM': 'P b n b'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
-x,-y+1/2,+z+1/2
+x+1/2,-y+1/2,-z
....
+---------------------+-----------------+
| Seitz | Jones |
+---------------------+-----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.0,0.5,0.5)}	-x,-y+1/2,+z+1/2
{2_x00	(0.5,0.5,0.0)}	+x+1/2,-y+1/2,-z
{2_0y0	(0.5,0.0,0.5)}	-x+1/2,+y,-z+1/2
{-1	(0.0,0.0,0.0)}	-x,-y,-z
{m_xy0	(0.0,0.5,0.5)}	+x,+y+1/2,-z+1/2
{m_0yz	(0.5,0.5,0.0)}	-x+1/2,+y+1/2,+z
{m_x0z	(0.5,0.0,0.5)}	+x+1/2,-y,+z+1/2
+---------------------+-----------------+
....

****
space group: 57 {'Hall': ' -P 2c 2b', 'HM': 'P b c m'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z+1/2
+x,-y+1/2,-z
....
+---------------------+-----------------+
| Seitz | Jones |
+---------------------+-----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.0,0.0,0.5)}	-x,-y,+z+1/2
{2_x00	(0.0,0.5,0.0)}	+x,-y+1/2,-z
{2_0y0	(0.0,0.5,0.5)}	-x,+y+1/2,-z+1/2
{-1	(0.0,0.0,0.0)}	-x,-y,-z
{m_xy0	(0.0,0.0,0.5)}	+x,+y,-z+1/2
{m_0yz	(0.0,0.5,0.0)}	-x,+y+1/2,+z
{m_x0z	(0.0,0.5,0.5)}	+x,-y+1/2,+z+1/2
+---------------------+-----------------+
....

****
space group: 57:ba-c {'Hall': ' -P 2c 2ac', 'HM': ' P c a m'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y,+z+1/2
+x+1/2,-y,-z+1/2
....
+---------------------+-----------------+
| Seitz | Jones |
+---------------------+-----------------+
| {1|(0.0,0.0,0.0)} | +x,+y,+z |

```
| {2_00z|(0.0,0.0,0.5)} |   −x,−y,+z+1/2   |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,−y,−z+1/2 |
| {2_0y0|(0.5,0.0,0.0)} |   −x+1/2,+y,−z   |
|    {−1|(0.0,0.0,0.0)} |     −x,−y,−z     |
| {m_xy0|(0.0,0.0,0.5)} |    +x,+y,−z+1/2  |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {m_x0z|(0.5,0.0,0.0)} |   +x+1/2,−y,+z   |
+──────────────────────+─────────────────+
```
....

```
**********************
space group: 57:cab {'Hall': ' −P 2ac 2a', 'HM': 'P m c a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x+1/2,−y,+z+1/2
+x+1/2,−y,−z
```
....

```
+──────────────────────+─────────────────+
|         Seitz        |       Jones     |
+──────────────────────+─────────────────+
|     {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.5,0.0,0.5)} | −x+1/2,−y,+z+1/2 |
| {2_x00|(0.5,0.0,0.0)} |   +x+1/2,−y,−z   |
| {2_0y0|(0.0,0.0,0.5)} |   −x,+y,−z+1/2   |
|    {−1|(0.0,0.0,0.0)} |     −x,−y,−z     |
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,−z+1/2 |
| {m_0yz|(0.5,0.0,0.0)} |   −x+1/2,+y,+z   |
| {m_x0z|(0.0,0.0,0.5)} |    +x,−y,+z+1/2  |
+──────────────────────+─────────────────+
```
....

```
**********************
space group: 57:−cba {'Hall': ' −P 2b 2a', 'HM': ' P m a b'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
−x,−y+1/2,+z
+x+1/2,−y,−z
```
....

```
+──────────────────────+─────────────────+
|         Seitz        |       Jones     |
+──────────────────────+─────────────────+
|     {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.5,0.0)} |   −x,−y+1/2,+z   |
| {2_x00|(0.5,0.0,0.0)} |   +x+1/2,−y,−z   |
| {2_0y0|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,−z |
|    {−1|(0.0,0.0,0.0)} |     −x,−y,−z     |
| {m_xy0|(0.0,0.5,0.0)} |   +x,+y+1/2,−z   |
| {m_0yz|(0.5,0.0,0.0)} |   −x+1/2,+y,+z   |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,+z |
+──────────────────────+─────────────────+
```
....

```
**********************
space group: 57:bca {'Hall': ' -P 2a 2ab', 'HM': 'P b m a'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
-x+1/2,-y,+z
+x+1/2,-y+1/2,-z

.................
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.5,0.0,0.0)} |    -x+1/2,-y,+z   |
| {2_x00|(0.5,0.5,0.0)} |  +x+1/2,-y+1/2,-z |
| {2_0y0|(0.0,0.5,0.0)} |   -x,+y+1/2,-z   |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
| {m_xy0|(0.5,0.0,0.0)} |    +x+1/2,+y,-z   |
| {m_0yz|(0.5,0.5,0.0)} |  -x+1/2,+y+1/2,+z |
| {m_x0z|(0.0,0.5,0.0)} |    +x,-y+1/2,+z   |
+---------------------+-----------------+
.................

**********************
space group: 57:a-cb {'Hall': ' -P 2bc 2c', 'HM': ' P c m b'}
Crystal system: Orthorhombic
Setting: a-cb
+x,+y,+z
-x,-y+1/2,+z+1/2
+x,-y,-z+1/2

.................
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.5,0.5)} |  -x,-y+1/2,+z+1/2 |
| {2_x00|(0.0,0.0,0.5)} |    +x,-y,-z+1/2   |
| {2_0y0|(0.0,0.5,0.0)} |   -x,+y+1/2,-z   |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
| {m_xy0|(0.0,0.5,0.5)} |  +x,+y+1/2,-z+1/2 |
| {m_0yz|(0.0,0.0,0.5)} |    -x,+y,+z+1/2   |
| {m_x0z|(0.0,0.5,0.0)} |    +x,-y+1/2,+z   |
+---------------------+-----------------+
.................

**********************
space group: 58 {'Hall': ' -P 2 2n', 'HM': 'P n n m'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
+x+1/2,-y+1/2,-z+1/2

.................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
```

```
|    {1|(0.0,0.0,0.0)}   |       +x,+y,+z       |
| {2_00z|(0.0,0.0,0.0)}  |       −x,−y,+z       |
| {2_x00|(0.5,0.5,0.5)}  | +x+1/2,−y+1/2,−z+1/2 |
| {2_0y0|(0.5,0.5,0.5)}  | −x+1/2,+y+1/2,−z+1/2 |
|    {−1|(0.0,0.0,0.0)}  |       −x,−y,−z       |
| {m_xy0|(0.0,0.0,0.0)}  |       +x,+y,−z       |
| {m_0yz|(0.5,0.5,0.5)}  | −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.5)}  | +x+1/2,−y+1/2,+z+1/2 |
+-----------------------+----------------------+

..................


**********************
space group: 58:cab {'Hall': ' −P 2n 2', 'HM': 'P m n n'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x+1/2,−y+1/2,+z+1/2
+x,−y,−z
..................
+-----------------------+----------------------+
|         Seitz         |         Jones        |
+-----------------------+----------------------+
|    {1|(0.0,0.0,0.0)}   |       +x,+y,+z       |
| {2_00z|(0.5,0.5,0.5)}  | −x+1/2,−y+1/2,+z+1/2 |
| {2_x00|(0.0,0.0,0.0)}  |       +x,−y,−z       |
| {2_0y0|(0.5,0.5,0.5)}  | −x+1/2,+y+1/2,−z+1/2 |
|    {−1|(0.0,0.0,0.0)}  |       −x,−y,−z       |
| {m_xy0|(0.5,0.5,0.5)}  | +x+1/2,+y+1/2,−z+1/2 |
| {m_0yz|(0.0,0.0,0.0)}  |       −x,+y,+z       |
| {m_x0z|(0.5,0.5,0.5)}  | +x+1/2,−y+1/2,+z+1/2 |
+-----------------------+----------------------+

..................


**********************
space group: 58:bca {'Hall': ' −P 2n 2n', 'HM': 'P n m n'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
−x+1/2,−y+1/2,+z+1/2
+x+1/2,−y+1/2,−z+1/2
..................
+-----------------------+----------------------+
|         Seitz         |         Jones        |
+-----------------------+----------------------+
|    {1|(0.0,0.0,0.0)}   |       +x,+y,+z       |
| {2_00z|(0.5,0.5,0.5)}  | −x+1/2,−y+1/2,+z+1/2 |
| {2_x00|(0.5,0.5,0.5)}  | +x+1/2,−y+1/2,−z+1/2 |
| {2_0y0|(0.0,0.0,0.0)}  |       −x,+y,−z       |
|    {−1|(0.0,0.0,0.0)}  |       −x,−y,−z       |
| {m_xy0|(0.5,0.5,0.5)}  | +x+1/2,+y+1/2,−z+1/2 |
| {m_0yz|(0.5,0.5,0.5)}  | −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.0,0.0)}  |       +x,−y,+z       |
+-----------------------+----------------------+

..................
```

```
**********************
space group: 59:1 {'Hall': 'P 2 2ab −1ab', 'HM': 'P m m n:1'}
Crystal system: Orthorhombic
Setting: 1
+x,+y,+z
−x,−y,+z
+x+1/2,−y+1/2,−z
−x+1/2,−y+1/2,−z
..................
+----------------------+-----------------+
|        Seitz         |      Jones      |
+----------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |    −x,−y,+z     |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,−z |
|    {−1|(0.5,0.5,0.0)} | −x+1/2,−y+1/2,−z |
+----------------------+-----------------+
..................

**********************
space group: 59:2 {'Hall': ' −P 2ab 2a', 'HM': 'P m m n:2'}
Crystal system: Orthorhombic
Setting: 2
+x,+y,+z
−x+1/2,−y+1/2,+z
+x+1/2,−y,−z
..................
+----------------------+-----------------+
|        Seitz         |      Jones      |
+----------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z     |
| {2_00z|(0.5,0.5,0.0)} | −x+1/2,−y+1/2,+z |
| {2_x00|(0.5,0.0,0.0)} |  +x+1/2,−y,−z   |
| {2_0y0|(0.0,0.5,0.0)} |  −x,+y+1/2,−z   |
|    {−1|(0.0,0.0,0.0)} |    −x,−y,−z     |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,−z |
| {m_0yz|(0.5,0.0,0.0)} |  −x+1/2,+y,+z   |
| {m_x0z|(0.0,0.5,0.0)} |  +x,−y+1/2,+z   |
+----------------------+-----------------+
..................

**********************
space group: 59:1cab {'Hall': 'P 2bc 2 −1bc', 'HM': ' P n m m:1'}
Crystal system: Orthorhombic
Setting: 1cab
+x,+y,+z
−x,−y+1/2,+z+1/2
+x,−y,−z
−x,−y+1/2,−z+1/2
..................
+----------------------+------------------+
|        Seitz         |      Jones       |
+----------------------+------------------+
```

```
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {2_00z|(0.0,0.5,0.5)} | −x,−y+1/2,+z+1/2 |
| {2_x00|(0.0,0.0,0.0)} |      +x,−y,−z       |
|    {−1|(0.0,0.5,0.5)}   | −x,−y+1/2,−z+1/2 |
+─────────────────────+─────────────────+
..................

*********************
space group: 59:2cab {'Hall': ' −P 2c 2bc', 'HM': ' P n m m:2'}
Crystal system: Orthorhombic
Setting: 2cab
+x,+y,+z
−x,−y,+z+1/2
+x,−y+1/2,−z+1/2
..................
+─────────────────────+─────────────────+
|         Seitz         |       Jones      |
+─────────────────────+─────────────────+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {2_00z|(0.0,0.0,0.5)} |    −x,−y,+z+1/2    |
| {2_x00|(0.0,0.5,0.5)} | +x,−y+1/2,−z+1/2 |
| {2_0y0|(0.0,0.5,0.0)} |   −x,+y+1/2,−z    |
|    {−1|(0.0,0.0,0.0)}   |      −x,−y,−z       |
| {m_xy0|(0.0,0.0,0.5)} |    +x,+y,−z+1/2    |
| {m_0yz|(0.0,0.5,0.5)} | −x,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.5,0.0)} |   +x,−y+1/2,+z    |
+─────────────────────+─────────────────+
..................

*********************
space group: 59:1bca {'Hall': 'P 2ac 2ac −1ac', 'HM': ' P m n m:1'}
Crystal system: Orthorhombic
Setting: 1bca
+x,+y,+z
−x+1/2,−y,+z+1/2
+x+1/2,−y,−z+1/2
−x+1/2,−y,−z+1/2
..................
+─────────────────────+─────────────────+
|         Seitz         |       Jones      |
+─────────────────────+─────────────────+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {2_00z|(0.5,0.0,0.5)} | −x+1/2,−y,+z+1/2 |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,−y,−z+1/2 |
|    {−1|(0.5,0.0,0.5)}   | −x+1/2,−y,−z+1/2 |
+─────────────────────+─────────────────+
..................

*********************
space group: 59:2bca {'Hall': ' −P 2c 2a', 'HM': ' P m n m:2'}
Crystal system: Orthorhombic
Setting: 2bca
+x,+y,+z
−x,−y,+z+1/2
```

+x+1/2,−y,−z
....

+----------------------+------------------+
| Seitz | Jones |
+----------------------+------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.0,0.0,0.5)}	−x,−y,+z+1/2
{2_x00	(0.5,0.0,0.0)}	+x+1/2,−y,−z
{2_0y0	(0.5,0.0,0.5)}	−x+1/2,+y,−z+1/2
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0	(0.0,0.0,0.5)}	+x,+y,−z+1/2
{m_0yz	(0.5,0.0,0.0)}	−x+1/2,+y,+z
{m_x0z	(0.5,0.0,0.5)}	+x+1/2,−y,+z+1/2
+----------------------+------------------+

....

****
space group: 60 {'Hall': ' −P 2n 2ab', 'HM': 'P b c n'}
Crystal system: Orthorhombic
+x,+y,+z
−x+1/2,−y+1/2,+z+1/2
+x+1/2,−y+1/2,−z
....

+----------------------+----------------------+
| Seitz | Jones |
+----------------------+----------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.5,0.5,0.5)}	−x+1/2,−y+1/2,+z+1/2
{2_x00	(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{2_0y0	(0.0,0.0,0.5)}	−x,+y,−z+1/2
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0	(0.5,0.5,0.5)}	+x+1/2,+y+1/2,−z+1/2
{m_0yz	(0.5,0.5,0.0)}	−x+1/2,+y+1/2,+z
{m_x0z	(0.0,0.0,0.5)}	+x,−y,+z+1/2
+----------------------+----------------------+

....

****
space group: 60:ba-c {'Hall': ' −P 2n 2c', 'HM': ' P c a n'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
−x+1/2,−y+1/2,+z+1/2
+x,−y,−z+1/2
....

+----------------------+----------------------+
| Seitz | Jones |
+----------------------+----------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.5,0.5,0.5)}	−x+1/2,−y+1/2,+z+1/2
{2_x00	(0.0,0.0,0.5)}	+x,−y,−z+1/2
{2_0y0	(0.5,0.5,0.0)}	−x+1/2,+y+1/2,−z
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0	(0.5,0.5,0.5)}	+x+1/2,+y+1/2,−z+1/2

```
| {m_0yz|(0.0,0.0,0.5)} |      −x,+y,+z+1/2      |
| {m_x0z|(0.5,0.5,0.0)} |    +x+1/2,−y+1/2,+z    |
+---------------------+---------------------+
```
....

```
*********************
space group: 60:cab {'Hall': ' −P 2a 2n', 'HM': 'P n c a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x+1/2,−y,+z
+x+1/2,−y+1/2,−z+1/2
```
....

```
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |        +x,+y,+z       |
| {2_00z|(0.5,0.0,0.0)} |      −x+1/2,−y,+z     |
| {2_x00|(0.5,0.5,0.5)} |  +x+1/2,−y+1/2,−z+1/2 |
| {2_0y0|(0.0,0.5,0.5)} |    −x,+y+1/2,−z+1/2   |
|   {−1|(0.0,0.0,0.0)} |        −x,−y,−z       |
| {m_xy0|(0.5,0.0,0.0)} |      +x+1/2,+y,−z     |
| {m_0yz|(0.5,0.5,0.5)} |  −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.5,0.5)} |    +x,−y+1/2,+z+1/2   |
+---------------------+---------------------+
```
....

```
*********************
space group: 60:−cba {'Hall': ' −P 2bc 2n', 'HM': ' P n a b'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
−x,−y+1/2,+z+1/2
+x+1/2,−y+1/2,−z+1/2
```
....

```
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |        +x,+y,+z       |
| {2_00z|(0.0,0.5,0.5)} |     −x,−y+1/2,+z+1/2   |
| {2_x00|(0.5,0.5,0.5)} |  +x+1/2,−y+1/2,−z+1/2 |
| {2_0y0|(0.5,0.0,0.0)} |      −x+1/2,+y,−z     |
|   {−1|(0.0,0.0,0.0)} |        −x,−y,−z       |
| {m_xy0|(0.0,0.5,0.5)} |    +x,+y+1/2,−z+1/2   |
| {m_0yz|(0.5,0.5,0.5)} |  −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.0,0.0)} |      +x+1/2,−y,+z     |
+---------------------+---------------------+
```
....

```
*********************
space group: 60:bca {'Hall': ' −P 2ac 2b', 'HM': 'P b n a'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
```

−x+1/2,−y,+z+1/2
+x,−y+1/2,−z

....

```
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z       |
| {2_00z|(0.5,0.0,0.5)} |   −x+1/2,−y,+z+1/2  |
| {2_x00|(0.0,0.5,0.0)} |    +x,−y+1/2,−z     |
| {2_0y0|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,−z+1/2 |
|    {−1|(0.0,0.0,0.0)} |      −x,−y,−z       |
| {m_xy0|(0.5,0.0,0.5)} |   +x+1/2,+y,−z+1/2  |
| {m_0yz|(0.0,0.5,0.0)} |    −x,+y+1/2,+z     |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2 |
+---------------------+---------------------+
```

....

****
space group: 60:a−cb {'Hall': ' −P 2b 2ac', 'HM': ' P c n b'}
Crystal system: Orthorhombic
Setting: a−cb
+x,+y,+z
−x,−y+1/2,+z
+x+1/2,−y,−z+1/2

....

```
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z       |
| {2_00z|(0.0,0.5,0.0)} |    −x,−y+1/2,+z     |
| {2_x00|(0.5,0.0,0.5)} |   +x+1/2,−y,−z+1/2  |
| {2_0y0|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,−z+1/2 |
|    {−1|(0.0,0.0,0.0)} |      −x,−y,−z       |
| {m_xy0|(0.0,0.5,0.0)} |    +x,+y+1/2,−z     |
| {m_0yz|(0.5,0.0,0.5)} |   −x+1/2,+y,+z+1/2  |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2 |
+---------------------+---------------------+
```

....

****
space group: 61 {'Hall': ' −P 2ac 2ab', 'HM': 'P b c a'}
Crystal system: Orthorhombic
+x,+y,+z
−x+1/2,−y,+z+1/2
+x+1/2,−y+1/2,−z

....

```
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.5,0.0,0.5)} | −x+1/2,−y,+z+1/2 |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,−z |
| {2_0y0|(0.0,0.5,0.5)} | −x,+y+1/2,−z+1/2 |
|    {−1|(0.0,0.0,0.0)} |     −x,−y,−z     |
```

```
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,−z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,+z |
| {m_x0z|(0.0,0.5,0.5)} | +x,−y+1/2,+z+1/2 |
+─────────────────────+────────────────+
```
....

```
**********************
space group: 61:ba−c {'Hall': ' −P 2bc 2ac', 'HM': ' P c a b'}
Crystal system: Orthorhombic
Setting: ba−c
+x,+y,+z
−x,−y+1/2,+z+1/2
+x+1/2,−y,−z+1/2
```
....

```
+─────────────────────+────────────────+
|         Seitz        |      Jones     |
+─────────────────────+────────────────+
|     {1|(0.0,0.0,0.0)}    |       +x,+y,+z       |
| {2_00z|(0.0,0.5,0.5)}    | −x,−y+1/2,+z+1/2 |
| {2_x00|(0.5,0.0,0.5)}    | +x+1/2,−y,−z+1/2 |
| {2_0y0|(0.5,0.5,0.0)}    | −x+1/2,+y+1/2,−z |
|     {−1|(0.0,0.0,0.0)}    |       −x,−y,−z       |
| {m_xy0|(0.0,0.5,0.5)}    | +x,+y+1/2,−z+1/2 |
| {m_0yz|(0.5,0.0,0.5)}    | −x+1/2,+y,+z+1/2 |
| {m_x0z|(0.5,0.5,0.0)}    | +x+1/2,−y+1/2,+z |
+─────────────────────+────────────────+
```
....

```
**********************
space group: 62 {'Hall': ' −P 2ac 2n', 'HM': 'P n m a'}
Crystal system: Orthorhombic
+x,+y,+z
−x+1/2,−y,+z+1/2
+x+1/2,−y+1/2,−z+1/2
```
....

```
+─────────────────────+────────────────────+
|         Seitz        |        Jones       |
+─────────────────────+────────────────────+
|     {1|(0.0,0.0,0.0)}    |        +x,+y,+z        |
| {2_00z|(0.5,0.0,0.5)}    |   −x+1/2,−y,+z+1/2   |
| {2_x00|(0.5,0.5,0.5)}    | +x+1/2,−y+1/2,−z+1/2 |
| {2_0y0|(0.0,0.5,0.0)}    |    −x,+y+1/2,−z    |
|     {−1|(0.0,0.0,0.0)}    |        −x,−y,−z        |
| {m_xy0|(0.5,0.0,0.5)}    |   +x+1/2,+y,−z+1/2   |
| {m_0yz|(0.5,0.5,0.5)}    | −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.5,0.0)}    |    +x,−y+1/2,+z    |
+─────────────────────+────────────────────+
```
....

```
**********************
space group: 62:ba−c {'Hall': ' −P 2bc 2a', 'HM': ' P m n b'}
Crystal system: Orthorhombic
Setting: ba−c
+x,+y,+z
```

−x,−y+1/2,+z+1/2
+x+1/2,−y,−z

....

+---------------------+---------------------+
| Seitz | Jones |
+---------------------+---------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2
{2_x00	(0.5,0.0,0.0)}	+x+1/2,−y,−z
{2_0y0	(0.5,0.5,0.5)}	−x+1/2,+y+1/2,−z+1/2
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0	(0.0,0.5,0.5)}	+x,+y+1/2,−z+1/2
{m_0yz	(0.5,0.0,0.0)}	−x+1/2,+y,+z
{m_x0z	(0.5,0.5,0.5)}	+x+1/2,−y+1/2,+z+1/2
+---------------------+---------------------+

....

****
space group: 62:cab {'Hall': ' −P 2c 2ab', 'HM': 'P b n m'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x,−y,+z+1/2
+x+1/2,−y+1/2,−z

....

+---------------------+---------------------+
| Seitz | Jones |
+---------------------+---------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.0,0.0,0.5)}	−x,−y,+z+1/2
{2_x00	(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{2_0y0	(0.5,0.5,0.5)}	−x+1/2,+y+1/2,−z+1/2
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0	(0.0,0.0,0.5)}	+x,+y,−z+1/2
{m_0yz	(0.5,0.5,0.0)}	−x+1/2,+y+1/2,+z
{m_x0z	(0.5,0.5,0.5)}	+x+1/2,−y+1/2,+z+1/2
+---------------------+---------------------+

....

****
space group: 62:−cba {'Hall': ' −P 2n 2ac', 'HM': ' P c m n'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
−x+1/2,−y+1/2,+z+1/2
+x+1/2,−y,−z+1/2

....

+---------------------+---------------------+
| Seitz | Jones |
+---------------------+---------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{2_00z	(0.5,0.5,0.5)}	−x+1/2,−y+1/2,+z+1/2
{2_x00	(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{2_0y0	(0.0,0.5,0.0)}	−x,+y+1/2,−z

```
|     {-1|(0.0,0.0,0.0)}     |        -x,-y,-z        |
|  {m_xy0|(0.5,0.5,0.5)}  | +x+1/2,+y+1/2,-z+1/2 |
|  {m_0yz|(0.5,0.0,0.5)}  |   -x+1/2,+y,+z+1/2   |
|  {m_x0z|(0.0,0.5,0.0)}  |      +x,-y+1/2,+z     |
+----------------------+----------------------+
```
....


```
***********************
space group: 62:bca {'Hall': ' -P 2n 2a', 'HM': 'P m c n'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
-x+1/2,-y+1/2,+z+1/2
+x+1/2,-y,-z
```
....
```
+----------------------+----------------------+
|         Seitz        |         Jones        |
+----------------------+----------------------+
|     {1|(0.0,0.0,0.0)}     |        +x,+y,+z        |
|  {2_00z|(0.5,0.5,0.5)}  | -x+1/2,-y+1/2,+z+1/2 |
|  {2_x00|(0.5,0.0,0.0)}  |      +x+1/2,-y,-z     |
|  {2_0y0|(0.0,0.5,0.5)}  |   -x,+y+1/2,-z+1/2   |
|     {-1|(0.0,0.0,0.0)}     |        -x,-y,-z        |
|  {m_xy0|(0.5,0.5,0.5)}  | +x+1/2,+y+1/2,-z+1/2 |
|  {m_0yz|(0.5,0.0,0.0)}  |      -x+1/2,+y,+z     |
|  {m_x0z|(0.0,0.5,0.5)}  |   +x,-y+1/2,+z+1/2   |
+----------------------+----------------------+
```
....


```
***********************
space group: 62:a-cb {'Hall': ' -P 2c 2n', 'HM': ' P n a m'}
Crystal system: Orthorhombic
Setting: a-cb
+x,+y,+z
-x,-y,+z+1/2
+x+1/2,-y+1/2,-z+1/2
```
....
```
+----------------------+----------------------+
|         Seitz        |         Jones        |
+----------------------+----------------------+
|     {1|(0.0,0.0,0.0)}     |        +x,+y,+z        |
|  {2_00z|(0.0,0.0,0.5)}  |      -x,-y,+z+1/2     |
|  {2_x00|(0.5,0.5,0.5)}  | +x+1/2,-y+1/2,-z+1/2 |
|  {2_0y0|(0.5,0.5,0.0)}  |   -x+1/2,+y+1/2,-z   |
|     {-1|(0.0,0.0,0.0)}     |        -x,-y,-z        |
|  {m_xy0|(0.0,0.0,0.5)}  |      +x,+y,-z+1/2     |
|  {m_0yz|(0.5,0.5,0.5)}  | -x+1/2,+y+1/2,+z+1/2 |
|  {m_x0z|(0.5,0.5,0.0)}  |   +x+1/2,-y+1/2,+z   |
+----------------------+----------------------+
```
....


```
***********************
space group: 63 {'Hall': ' -C 2c 2', 'HM': 'C m c m'}
Crystal system: Orthorhombic
```

```
+x,+y,+z
-x,-y,+z+1/2
+x,-y,-z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {2_00z|(0.0,0.0,0.5)} |     -x,-y,+z+1/2     |
| {2_x00|(0.0,0.0,0.0)} |      +x,-y,-z       |
| {2_0y0|(0.0,0.0,0.5)} |     -x,+y,-z+1/2     |
|   {-1|(0.0,0.0,0.0)}   |      -x,-y,-z       |
| {m_xy0|(0.0,0.0,0.5)} |     +x,+y,-z+1/2     |
| {m_0yz|(0.0,0.0,0.0)} |      -x,+y,+z       |
| {m_x0z|(0.0,0.0,0.5)} |     +x,-y,+z+1/2     |
|    {1|(0.5,0.5,0.0)}    |    +x+1/2,+y+1/2,+z    |
| {2_00z|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,+z+1/2 |
| {2_x00|(0.5,0.5,0.0)} |   +x+1/2,-y+1/2,-z    |
| {2_0y0|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,-z+1/2 |
|   {-1|(0.5,0.5,0.0)}   |   -x+1/2,-y+1/2,-z    |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,-z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} |   -x+1/2,+y+1/2,+z    |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
+---------------------+---------------------+
..................

**********************
space group: 63:ba-c {'Hall': ' -C 2c 2c', 'HM': ' C c m m'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y,+z+1/2
+x,-y,-z+1/2
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {2_00z|(0.0,0.0,0.5)} |     -x,-y,+z+1/2     |
| {2_x00|(0.0,0.0,0.5)} |     +x,-y,-z+1/2     |
| {2_0y0|(0.0,0.0,0.0)} |      -x,+y,-z       |
|   {-1|(0.0,0.0,0.0)}   |      -x,-y,-z       |
| {m_xy0|(0.0,0.0,0.5)} |     +x,+y,-z+1/2     |
| {m_0yz|(0.0,0.0,0.5)} |     -x,+y,+z+1/2     |
| {m_x0z|(0.0,0.0,0.0)} |      +x,-y,+z       |
|    {1|(0.5,0.5,0.0)}    |    +x+1/2,+y+1/2,+z    |
| {2_00z|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,+z+1/2 |
| {2_x00|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,-z+1/2 |
| {2_0y0|(0.5,0.5,0.0)} |   -x+1/2,+y+1/2,-z    |
|   {-1|(0.5,0.5,0.0)}   |   -x+1/2,-y+1/2,-z    |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,-z+1/2 |
| {m_0yz|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.0)} |   +x+1/2,-y+1/2,+z    |
+---------------------+---------------------+
```

....

```
**********************
space group: 63:cab {'Hall': ' -A 2a 2a', 'HM': 'A m m a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
-x+1/2,-y,+z
+x+1/2,-y,-z
```
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.5,0.0,0.0)}	-x+1/2,-y,+z
{2_x00|(0.5,0.0,0.0)}	+x+1/2,-y,-z
{2_0y0|(0.0,0.0,0.0)}	-x,+y,-z
{-1|(0.0,0.0,0.0)}	-x,-y,-z
{m_xy0|(0.5,0.0,0.0)}	+x+1/2,+y,-z
{m_0yz|(0.5,0.0,0.0)}	-x+1/2,+y,+z
{m_x0z|(0.0,0.0,0.0)}	+x,-y,+z
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{2_00z|(0.5,0.5,0.5)}	-x+1/2,-y+1/2,+z+1/2
{2_x00|(0.5,0.5,0.5)}	+x+1/2,-y+1/2,-z+1/2
{2_0y0|(0.0,0.5,0.5)}	-x,+y+1/2,-z+1/2
{-1|(0.0,0.5,0.5)}	-x,-y+1/2,-z+1/2
{m_xy0|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,-z+1/2
{m_0yz|(0.5,0.5,0.5)}	-x+1/2,+y+1/2,+z+1/2
{m_x0z|(0.0,0.5,0.5)}	+x,-y+1/2,+z+1/2

....

```
**********************
space group: 63:-cba {'Hall': ' -A 2 2a', 'HM': ' A m a m'}
Crystal system: Orthorhombic
Setting: -cba
+x,+y,+z
-x,-y,+z
+x+1/2,-y,-z
```
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.0,0.0)}	-x,-y,+z
{2_x00|(0.5,0.0,0.0)}	+x+1/2,-y,-z
{2_0y0|(0.5,0.0,0.0)}	-x+1/2,+y,-z
{-1|(0.0,0.0,0.0)}	-x,-y,-z
{m_xy0|(0.0,0.0,0.0)}	+x,+y,-z
{m_0yz|(0.5,0.0,0.0)}	-x+1/2,+y,+z
{m_x0z|(0.5,0.0,0.0)}	+x+1/2,-y,+z
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{2_00z|(0.0,0.5,0.5)}	-x,-y+1/2,+z+1/2
{2_x00|(0.5,0.5,0.5)}	+x+1/2,-y+1/2,-z+1/2

```
|  {2_0y0|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,−z+1/2 |
|    {−1|(0.0,0.5,0.5)}  |   −x,−y+1/2,−z+1/2   |
|  {m_xy0|(0.0,0.5,0.5)} |   +x,+y+1/2,−z+1/2   |
|  {m_0yz|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,+z+1/2 |
|  {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2 |
+————————————————————+————————————————————+
..................

*********************
space group: 63:bca {'Hall': ' −B 2 2b', 'HM': 'B b m m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
−x,−y,+z
+x,−y+1/2,−z
..................
+————————————————————+————————————————————+
|        Seitz       |        Jones       |
+————————————————————+————————————————————+
|    {1|(0.0,0.0,0.0)}   |       +x,+y,+z       |
|  {2_00z|(0.0,0.0,0.0)} |       −x,−y,+z       |
|  {2_x00|(0.0,0.5,0.0)} |     +x,−y+1/2,−z     |
|  {2_0y0|(0.0,0.5,0.0)} |     −x,+y+1/2,−z     |
|    {−1|(0.0,0.0,0.0)}  |       −x,−y,−z       |
|  {m_xy0|(0.0,0.0,0.0)} |       +x,+y,−z       |
|  {m_0yz|(0.0,0.5,0.0)} |     −x,+y+1/2,+z     |
|  {m_x0z|(0.0,0.5,0.0)} |     +x,−y+1/2,+z     |
|    {1|(0.5,0.0,0.5)}   |    +x+1/2,+y,+z+1/2   |
|  {2_00z|(0.5,0.0,0.5)} |    −x+1/2,−y,+z+1/2   |
|  {2_x00|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,−z+1/2 |
|  {2_0y0|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,−z+1/2 |
|    {−1|(0.5,0.0,0.5)}  |    −x+1/2,−y,−z+1/2   |
|  {m_xy0|(0.5,0.0,0.5)} |    +x+1/2,+y,−z+1/2   |
|  {m_0yz|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,+z+1/2 |
|  {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2 |
+————————————————————+————————————————————+
..................

*********************
space group: 63:a−cb {'Hall': ' −B 2b 2', 'HM': ' B m m b'}
Crystal system: Orthorhombic
Setting: a−cb
+x,+y,+z
−x,−y+1/2,+z
+x,−y,−z
..................
+————————————————————+————————————————————+
|        Seitz       |        Jones       |
+————————————————————+————————————————————+
|    {1|(0.0,0.0,0.0)}   |       +x,+y,+z       |
|  {2_00z|(0.0,0.5,0.0)} |     −x,−y+1/2,+z     |
|  {2_x00|(0.0,0.0,0.0)} |       +x,−y,−z       |
|  {2_0y0|(0.0,0.5,0.0)} |     −x,+y+1/2,−z     |
|    {−1|(0.0,0.0,0.0)}  |       −x,−y,−z       |
```

```
| {m_xy0|(0.0,0.5,0.0)} |     +x,+y+1/2,-z      |
| {m_0yz|(0.0,0.0,0.0)} |       -x,+y,+z        |
| {m_x0z|(0.0,0.5,0.0)} |     +x,-y+1/2,+z      |
|    {1|(0.5,0.0,0.5)}  |    +x+1/2,+y,+z+1/2   |
| {2_00z|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,+z+1/2  |
| {2_x00|(0.5,0.0,0.5)} |   +x+1/2,-y,-z+1/2    |
| {2_0y0|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,-z+1/2  |
|   {-1|(0.5,0.0,0.5)}  |    -x+1/2,-y,-z+1/2   |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,-z+1/2  |
| {m_0yz|(0.5,0.0,0.5)} |    -x+1/2,+y,+z+1/2   |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2  |
+----------------------+---------------------+
..................

**********************
space group: 64 {'Hall': ' -C 2bc 2', 'HM': 'C m c a'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y+1/2,+z+1/2
+x,-y,-z
..................
+----------------------+-----------------+
|        Seitz         |      Jones      |
+----------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.5,0.5)} | -x,-y+1/2,+z+1/2 |
| {2_x00|(0.0,0.0,0.0)} |     +x,-y,-z     |
| {2_0y0|(0.0,0.5,0.5)} | -x,+y+1/2,-z+1/2 |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
| {m_xy0|(0.0,0.5,0.5)} | +x,+y+1/2,-z+1/2 |
| {m_0yz|(0.0,0.0,0.0)} |     -x,+y,+z     |
| {m_x0z|(0.0,0.5,0.5)} | +x,-y+1/2,+z+1/2 |
|    {1|(0.5,0.5,0.0)} |   +x+1/2,+y+1/2,+z |
| {2_00z|(0.5,0.0,0.5)} | -x+1/2,-y,+z+1/2 |
| {2_x00|(0.5,0.5,0.0)} |  +x+1/2,-y+1/2,-z |
| {2_0y0|(0.5,0.0,0.5)} | -x+1/2,+y,-z+1/2 |
|   {-1|(0.5,0.5,0.0)} |  -x+1/2,-y+1/2,-z |
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,-z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,+z |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,-y,+z+1/2 |
+----------------------+-----------------+
..................

**********************
space group: 64:ba-c {'Hall': ' -C 2bc 2bc', 'HM': ' C c m b'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y+1/2,+z+1/2
+x,-y+1/2,-z+1/2
..................
+----------------------+-----------------+
|        Seitz         |      Jones      |
+----------------------+-----------------+
```

```
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z      |
| {2_00z|(0.0,0.5,0.5)}  | −x,−y+1/2,+z+1/2  |
| {2_x00|(0.0,0.5,0.5)}  | +x,−y+1/2,−z+1/2  |
| {2_0y0|(0.0,0.0,0.0)}  |      −x,+y,−z      |
|   {−1|(0.0,0.0,0.0)}   |      −x,−y,−z      |
| {m_xy0|(0.0,0.5,0.5)}  | +x,+y+1/2,−z+1/2  |
| {m_0yz|(0.0,0.5,0.5)}  | −x,+y+1/2,+z+1/2  |
| {m_x0z|(0.0,0.0,0.0)}  |      +x,−y,+z      |
|    {1|(0.5,0.5,0.0)}   | +x+1/2,+y+1/2,+z  |
| {2_00z|(0.5,0.0,0.5)}  | −x+1/2,−y,+z+1/2  |
| {2_x00|(0.5,0.0,0.5)}  | +x+1/2,−y,−z+1/2  |
| {2_0y0|(0.5,0.5,0.0)}  | −x+1/2,+y+1/2,−z  |
|   {−1|(0.5,0.5,0.0)}   | −x+1/2,−y+1/2,−z  |
| {m_xy0|(0.5,0.0,0.5)}  | +x+1/2,+y,−z+1/2  |
| {m_0yz|(0.5,0.0,0.5)}  | −x+1/2,+y,+z+1/2  |
| {m_x0z|(0.5,0.5,0.0)}  | +x+1/2,−y+1/2,+z  |
+───────────────────────+───────────────────+
```

....


```
***********************
space group: 64:cab {'Hall': ' −A 2ac 2ac', 'HM': 'A b m a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x+1/2,−y,+z+1/2
+x+1/2,−y,−z+1/2
```

....

```
+───────────────────────+───────────────────+
|         Seitz         |       Jones       |
+───────────────────────+───────────────────+
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z      |
| {2_00z|(0.5,0.0,0.5)}  | −x+1/2,−y,+z+1/2  |
| {2_x00|(0.5,0.0,0.5)}  | +x+1/2,−y,−z+1/2  |
| {2_0y0|(0.0,0.0,0.0)}  |      −x,+y,−z      |
|   {−1|(0.0,0.0,0.0)}   |      −x,−y,−z      |
| {m_xy0|(0.5,0.0,0.5)}  | +x+1/2,+y,−z+1/2  |
| {m_0yz|(0.5,0.0,0.5)}  | −x+1/2,+y,+z+1/2  |
| {m_x0z|(0.0,0.0,0.0)}  |      +x,−y,+z      |
|    {1|(0.0,0.5,0.5)}   | +x,+y+1/2,+z+1/2  |
| {2_00z|(0.5,0.5,0.0)}  | −x+1/2,−y+1/2,+z  |
| {2_x00|(0.5,0.5,0.0)}  | +x+1/2,−y+1/2,−z  |
| {2_0y0|(0.0,0.5,0.5)}  | −x,+y+1/2,−z+1/2  |
|   {−1|(0.0,0.5,0.5)}   | −x,−y+1/2,−z+1/2  |
| {m_xy0|(0.5,0.5,0.0)}  | +x+1/2,+y+1/2,−z  |
| {m_0yz|(0.5,0.5,0.0)}  | −x+1/2,+y+1/2,+z  |
| {m_x0z|(0.0,0.5,0.5)}  | +x,−y+1/2,+z+1/2  |
+───────────────────────+───────────────────+
```

....


```
***********************
space group: 64:−cba {'Hall': ' −A 2 2ac', 'HM': ' A c a m'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
```

−x,−y,+z
+x+1/2,−y,−z+1/2

....

```
+---------------------+------------------+
|        Seitz        |       Jones      |
+---------------------+------------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)} |    −x,−y,+z      |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,−y,−z+1/2 |
| {2_0y0|(0.5,0.0,0.5)} | −x+1/2,+y,−z+1/2 |
|    {−1|(0.0,0.0,0.0)} |    −x,−y,−z      |
| {m_xy0|(0.0,0.0,0.0)} |    +x,+y,−z      |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,−y,+z+1/2 |
|    {1|(0.0,0.5,0.5)} | +x,+y+1/2,+z+1/2 |
| {2_00z|(0.0,0.5,0.5)} | −x,−y+1/2,+z+1/2 |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,−z |
| {2_0y0|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,−z |
|    {−1|(0.0,0.5,0.5)} | −x,−y+1/2,−z+1/2 |
| {m_xy0|(0.0,0.5,0.5)} | +x,+y+1/2,−z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,+z |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,+z |
+---------------------+------------------+
```

....

****

space group: 64:bca {'Hall': ' −B 2 2bc', 'HM': 'B b c m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
−x,−y,+z
+x,−y+1/2,−z+1/2

....

```
+---------------------+------------------+
|        Seitz        |       Jones      |
+---------------------+------------------+
|    {1|(0.0,0.0,0.0)} |    +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)} |    −x,−y,+z      |
| {2_x00|(0.0,0.5,0.5)} | +x,−y+1/2,−z+1/2 |
| {2_0y0|(0.0,0.5,0.5)} | −x,+y+1/2,−z+1/2 |
|    {−1|(0.0,0.0,0.0)} |    −x,−y,−z      |
| {m_xy0|(0.0,0.0,0.0)} |    +x,+y,−z      |
| {m_0yz|(0.0,0.5,0.5)} | −x,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.5,0.5)} | +x,−y+1/2,+z+1/2 |
|    {1|(0.5,0.0,0.5)} | +x+1/2,+y,+z+1/2 |
| {2_00z|(0.5,0.0,0.5)} | −x+1/2,−y,+z+1/2 |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,−z |
| {2_0y0|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,−z |
|    {−1|(0.5,0.0,0.5)} | −x+1/2,−y,−z+1/2 |
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,−z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,+z |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,+z |
+---------------------+------------------+
```

....

```
**********************
space group: 64:a-cb {'Hall': ' -B 2bc 2', 'HM': ' B m a b'}
Crystal system: Orthorhombic
Setting: a-cb
+x,+y,+z
-x,-y+1/2,+z+1/2
+x,-y,-z
..................
+--------------------+-----------------+
|        Seitz       |      Jones      |
+--------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.5,0.5)} | -x,-y+1/2,+z+1/2 |
| {2_x00|(0.0,0.0,0.0)} |     +x,-y,-z     |
| {2_0y0|(0.0,0.5,0.5)} | -x,+y+1/2,-z+1/2 |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
| {m_xy0|(0.0,0.5,0.5)} | +x,+y+1/2,-z+1/2 |
| {m_0yz|(0.0,0.0,0.0)} |     -x,+y,+z     |
| {m_x0z|(0.0,0.5,0.5)} | +x,-y+1/2,+z+1/2 |
|    {1|(0.5,0.0,0.5)} | +x+1/2,+y,+z+1/2 |
| {2_00z|(0.5,0.5,0.0)} | -x+1/2,-y+1/2,+z |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,-y,-z+1/2 |
| {2_0y0|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,-z |
|   {-1|(0.5,0.0,0.5)} | -x+1/2,-y,-z+1/2 |
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,-z |
| {m_0yz|(0.5,0.0,0.5)} | -x+1/2,+y,+z+1/2 |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,+z |
+--------------------+-----------------+
..................

**********************
space group: 65 {'Hall': ' -C 2 2', 'HM': 'C m m m'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
+x,-y,-z
..................
+--------------------+-----------------+
|        Seitz       |      Jones      |
+--------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z     |
| {2_x00|(0.0,0.0,0.0)} |     +x,-y,-z     |
| {2_0y0|(0.0,0.0,0.0)} |     -x,+y,-z     |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
| {m_xy0|(0.0,0.0,0.0)} |     +x,+y,-z     |
| {m_0yz|(0.0,0.0,0.0)} |     -x,+y,+z     |
| {m_x0z|(0.0,0.0,0.0)} |     +x,-y,+z     |
|    {1|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,+z |
| {2_00z|(0.5,0.5,0.0)} | -x+1/2,-y+1/2,+z |
| {2_x00|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,-z |
| {2_0y0|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,-z |
|   {-1|(0.5,0.5,0.0)} | -x+1/2,-y+1/2,-z |
```

```
| {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,-z |
| {m_0yz|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,+z |
| {m_x0z|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,+z |
+----------------------+-----------------+
.................

**********************
space group: 65:cab {'Hall': ' -A 2 2', 'HM': 'A m m m'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
-x,-y,+z
+x,-y,-z
.................
+----------------------+-----------------+
|         Seitz        |      Jones      |
+----------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z    |
| {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z    |
| {2_x00|(0.0,0.0,0.0)} |     +x,-y,-z    |
| {2_0y0|(0.0,0.0,0.0)} |     -x,+y,-z    |
|   {-1|(0.0,0.0,0.0)} |      -x,-y,-z    |
| {m_xy0|(0.0,0.0,0.0)} |     +x,+y,-z    |
| {m_0yz|(0.0,0.0,0.0)} |     -x,+y,+z    |
| {m_x0z|(0.0,0.0,0.0)} |     +x,-y,+z    |
|    {1|(0.0,0.5,0.5)} |  +x,+y+1/2,+z+1/2 |
| {2_00z|(0.0,0.5,0.5)} | -x,-y+1/2,+z+1/2 |
| {2_x00|(0.0,0.5,0.5)} | +x,-y+1/2,-z+1/2 |
| {2_0y0|(0.0,0.5,0.5)} | -x,+y+1/2,-z+1/2 |
|   {-1|(0.0,0.5,0.5)} |  -x,-y+1/2,-z+1/2 |
| {m_xy0|(0.0,0.5,0.5)} | +x,+y+1/2,-z+1/2 |
| {m_0yz|(0.0,0.5,0.5)} | -x,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.5,0.5)} | +x,-y+1/2,+z+1/2 |
+----------------------+-----------------+
.................

**********************
space group: 65:bca {'Hall': ' -B 2 2', 'HM': 'B m m m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
-x,-y,+z
+x,-y,-z
.................
+----------------------+-----------------+
|         Seitz        |      Jones      |
+----------------------+-----------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z    |
| {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z    |
| {2_x00|(0.0,0.0,0.0)} |     +x,-y,-z    |
| {2_0y0|(0.0,0.0,0.0)} |     -x,+y,-z    |
|   {-1|(0.0,0.0,0.0)} |      -x,-y,-z    |
| {m_xy0|(0.0,0.0,0.0)} |     +x,+y,-z    |
| {m_0yz|(0.0,0.0,0.0)} |     -x,+y,+z    |
```

```
| {m_x0z|(0.0,0.0,0.0)} |      +x,−y,+z       |
|   {1|(0.5,0.0,0.5)}   | +x+1/2,+y,+z+1/2 |
| {2_00z|(0.5,0.0,0.5)} | −x+1/2,−y,+z+1/2 |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,−y,−z+1/2 |
| {2_0y0|(0.5,0.0,0.5)} | −x+1/2,+y,−z+1/2 |
|   {−1|(0.5,0.0,0.5)}  | −x+1/2,−y,−z+1/2 |
| {m_xy0|(0.5,0.0,0.5)} | +x+1/2,+y,−z+1/2 |
| {m_0yz|(0.5,0.0,0.5)} | −x+1/2,+y,+z+1/2 |
| {m_x0z|(0.5,0.0,0.5)} | +x+1/2,−y,+z+1/2 |
+─────────────────────+─────────────────+
.................

*********************
space group: 66 {'Hall': ' −C 2 2c', 'HM': 'C c c m'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
+x,−y,−z+1/2
.................
+─────────────────────+─────────────────────+
|         Seitz         |         Jones         |
+─────────────────────+─────────────────────+
|    {1|(0.0,0.0,0.0)}   |       +x,+y,+z         |
| {2_00z|(0.0,0.0,0.0)}  |       −x,−y,+z         |
| {2_x00|(0.0,0.0,0.5)}  |     +x,−y,−z+1/2       |
| {2_0y0|(0.0,0.0,0.5)}  |     −x,+y,−z+1/2       |
|    {−1|(0.0,0.0,0.0)}  |       −x,−y,−z         |
| {m_xy0|(0.0,0.0,0.0)}  |       +x,+y,−z         |
| {m_0yz|(0.0,0.0,0.5)}  |     −x,+y,+z+1/2       |
| {m_x0z|(0.0,0.0,0.5)}  |     +x,−y,+z+1/2       |
|    {1|(0.5,0.5,0.0)}   |    +x+1/2,+y+1/2,+z    |
| {2_00z|(0.5,0.5,0.0)}  |    −x+1/2,−y+1/2,+z    |
| {2_x00|(0.5,0.5,0.5)}  | +x+1/2,−y+1/2,−z+1/2 |
| {2_0y0|(0.5,0.5,0.5)}  | −x+1/2,+y+1/2,−z+1/2 |
|    {−1|(0.5,0.5,0.0)}  |    −x+1/2,−y+1/2,−z    |
| {m_xy0|(0.5,0.5,0.0)}  |    +x+1/2,+y+1/2,−z    |
| {m_0yz|(0.5,0.5,0.5)}  | −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.5)}  | +x+1/2,−y+1/2,+z+1/2 |
+─────────────────────+─────────────────────+
.................

*********************
space group: 66:cab {'Hall': ' −A 2a 2', 'HM': 'A m a a'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x+1/2,−y,+z
+x,−y,−z
.................
+─────────────────────+─────────────────────+
|         Seitz         |         Jones         |
+─────────────────────+─────────────────────+
|    {1|(0.0,0.0,0.0)}   |       +x,+y,+z         |
| {2_00z|(0.5,0.0,0.0)}  |     −x+1/2,−y,+z       |
```

```
| {2_x00|(0.0,0.0,0.0)} |      +x,−y,−z        |
| {2_0y0|(0.5,0.0,0.0)} |     −x+1/2,+y,−z     |
|    {−1|(0.0,0.0,0.0)} |      −x,−y,−z        |
| {m_xy0|(0.5,0.0,0.0)} |     +x+1/2,+y,−z     |
| {m_0yz|(0.0,0.0,0.0)} |      −x,+y,+z        |
| {m_x0z|(0.5,0.0,0.0)} |     +x+1/2,−y,+z     |
|    {1|(0.0,0.5,0.5)}  |   +x,+y+1/2,+z+1/2   |
| {2_00z|(0.5,0.5,0.5)} | −x+1/2,−y+1/2,+z+1/2 |
| {2_x00|(0.0,0.5,0.5)} |   +x,−y+1/2,−z+1/2   |
| {2_0y0|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,−z+1/2 |
|    {−1|(0.0,0.5,0.5)} |   −x,−y+1/2,−z+1/2   |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,−z+1/2 |
| {m_0yz|(0.0,0.5,0.5)} |   −x,+y+1/2,+z+1/2   |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2 |
+----------------------+---------------------+
.....................


**********************
space group: 66:bca {'Hall': ' −B 2b 2b', 'HM': 'B b m b'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
−x,−y+1/2,+z
+x,−y+1/2,−z
.....................
+----------------------+---------------------+
|        Seitz         |        Jones        |
+----------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {2_00z|(0.0,0.5,0.0)} |     −x,−y+1/2,+z     |
| {2_x00|(0.0,0.5,0.0)} |     +x,−y+1/2,−z     |
| {2_0y0|(0.0,0.0,0.0)} |      −x,+y,−z        |
|    {−1|(0.0,0.0,0.0)} |      −x,−y,−z        |
| {m_xy0|(0.0,0.5,0.0)} |     +x,+y+1/2,−z     |
| {m_0yz|(0.0,0.5,0.0)} |     −x,+y+1/2,+z     |
| {m_x0z|(0.0,0.0,0.0)} |      +x,−y,+z        |
|    {1|(0.5,0.0,0.5)}  |   +x+1/2,+y,+z+1/2   |
| {2_00z|(0.5,0.5,0.5)} | −x+1/2,−y+1/2,+z+1/2 |
| {2_x00|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,−z+1/2 |
| {2_0y0|(0.5,0.0,0.5)} |   −x+1/2,+y,−z+1/2   |
|    {−1|(0.5,0.0,0.5)} |   −x+1/2,−y,−z+1/2   |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,−z+1/2 |
| {m_0yz|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.0,0.5)} |   +x+1/2,−y,+z+1/2   |
+----------------------+---------------------+
.....................


**********************
space group: 67 {'Hall': ' −C 2b 2', 'HM': 'C m m a'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y+1/2,+z
+x,−y,−z
.....................
```

```
+----------------------+------------------+
|         Seitz        |      Jones       |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.5,0.0)}|   -x,-y+1/2,+z   |
| {2_x00|(0.0,0.0,0.0)}|     +x,-y,-z     |
| {2_0y0|(0.0,0.5,0.0)}|   -x,+y+1/2,-z   |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
| {m_xy0|(0.0,0.5,0.0)}|   +x,+y+1/2,-z   |
| {m_0yz|(0.0,0.0,0.0)}|     -x,+y,+z     |
| {m_x0z|(0.0,0.5,0.0)}|   +x,-y+1/2,+z   |
|    {1|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,+z |
| {2_00z|(0.5,0.0,0.0)}|   -x+1/2,-y,+z   |
| {2_x00|(0.5,0.5,0.0)}| +x+1/2,-y+1/2,-z |
| {2_0y0|(0.5,0.0,0.0)}|   -x+1/2,+y,-z   |
|   {-1|(0.5,0.5,0.0)} | -x+1/2,-y+1/2,-z |
| {m_xy0|(0.5,0.0,0.0)}|   +x+1/2,+y,-z   |
| {m_0yz|(0.5,0.5,0.0)}| -x+1/2,+y+1/2,+z |
| {m_x0z|(0.5,0.0,0.0)}|   +x+1/2,-y,+z   |
+----------------------+------------------+
..................

**********************
space group: 67:ba-c {'Hall': ' -C 2b 2b', 'HM': ' C m m b'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x,-y+1/2,+z
+x,-y+1/2,-z
..................
+----------------------+------------------+
|         Seitz        |      Jones       |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.5,0.0)}|   -x,-y+1/2,+z   |
| {2_x00|(0.0,0.5,0.0)}|   +x,-y+1/2,-z   |
| {2_0y0|(0.0,0.0,0.0)}|     -x,+y,-z     |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
| {m_xy0|(0.0,0.5,0.0)}|   +x,+y+1/2,-z   |
| {m_0yz|(0.0,0.5,0.0)}|   -x,+y+1/2,+z   |
| {m_x0z|(0.0,0.0,0.0)}|     +x,-y,+z     |
|    {1|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,+z |
| {2_00z|(0.5,0.0,0.0)}|   -x+1/2,-y,+z   |
| {2_x00|(0.5,0.0,0.0)}|   +x+1/2,-y,-z   |
| {2_0y0|(0.5,0.5,0.0)}| -x+1/2,+y+1/2,-z |
|   {-1|(0.5,0.5,0.0)} | -x+1/2,-y+1/2,-z |
| {m_xy0|(0.5,0.0,0.0)}|   +x+1/2,+y,-z   |
| {m_0yz|(0.5,0.0,0.0)}|   -x+1/2,+y,+z   |
| {m_x0z|(0.5,0.5,0.0)}| +x+1/2,-y+1/2,+z |
+----------------------+------------------+
..................

**********************
space group: 67:cab {'Hall': ' -A 2c 2c', 'HM': 'A b m m'}
```

Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x,−y,+z+1/2
+x,−y,−z+1/2
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.0,0.5)}	−x,−y,+z+1/2
{2_x00|(0.0,0.0,0.5)}	+x,−y,−z+1/2
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0|(0.0,0.0,0.5)}	+x,+y,−z+1/2
{m_0yz|(0.0,0.0,0.5)}	−x,+y,+z+1/2
{m_x0z|(0.0,0.0,0.0)}	+x,−y,+z
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{2_00z|(0.0,0.5,0.0)}	−x,−y+1/2,+z
{2_x00|(0.0,0.5,0.0)}	+x,−y+1/2,−z
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2
{−1|(0.0,0.5,0.5)}	−x,−y+1/2,−z+1/2
{m_xy0|(0.0,0.5,0.0)}	+x,+y+1/2,−z
{m_0yz|(0.0,0.5,0.0)}	−x,+y+1/2,+z
{m_x0z|(0.0,0.5,0.5)}	+x,−y+1/2,+z+1/2

....

****
space group: 67:−cba {'Hall': ' −A 2 2c', 'HM': ' A c m m'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
−x,−y,+z
+x,−y,−z+1/2
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{2_x00|(0.0,0.0,0.5)}	+x,−y,−z+1/2
{2_0y0|(0.0,0.0,0.5)}	−x,+y,−z+1/2
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0|(0.0,0.0,0.0)}	+x,+y,−z
{m_0yz|(0.0,0.0,0.5)}	−x,+y,+z+1/2
{m_x0z|(0.0,0.0,0.5)}	+x,−y,+z+1/2
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{2_00z|(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2
{2_x00|(0.0,0.5,0.0)}	+x,−y+1/2,−z
{2_0y0|(0.0,0.5,0.0)}	−x,+y+1/2,−z
{−1|(0.0,0.5,0.5)}	−x,−y+1/2,−z+1/2
{m_xy0|(0.0,0.5,0.5)}	+x,+y+1/2,−z+1/2
{m_0yz|(0.0,0.5,0.0)}	−x,+y+1/2,+z

```
| {m_x0z|(0.0,0.5,0.0)} |   +x,−y+1/2,+z   |
+---------------------+-----------------+
..................

**********************
space group: 67:bca {'Hall': ' −B 2 2c', 'HM': 'B m c m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
−x,−y,+z
+x,−y,−z+1/2
..................
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)}    |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |     −x,−y,+z     |
| {2_x00|(0.0,0.0,0.5)} |   +x,−y,−z+1/2   |
| {2_0y0|(0.0,0.0,0.5)} |   −x,+y,−z+1/2   |
|    {−1|(0.0,0.0,0.0)}    |     −x,−y,−z     |
| {m_xy0|(0.0,0.0,0.0)} |     +x,+y,−z     |
| {m_0yz|(0.0,0.0,0.5)} |   −x,+y,+z+1/2   |
| {m_x0z|(0.0,0.0,0.5)} |   +x,−y,+z+1/2   |
|    {1|(0.5,0.0,0.5)}    |  +x+1/2,+y,+z+1/2  |
| {2_00z|(0.5,0.0,0.5)} |  −x+1/2,−y,+z+1/2  |
| {2_x00|(0.5,0.0,0.0)} |   +x+1/2,−y,−z   |
| {2_0y0|(0.5,0.0,0.0)} |   −x+1/2,+y,−z   |
|    {−1|(0.5,0.0,0.5)}    |  −x+1/2,−y,−z+1/2  |
| {m_xy0|(0.5,0.0,0.5)} |  +x+1/2,+y,−z+1/2  |
| {m_0yz|(0.5,0.0,0.0)} |   −x+1/2,+y,+z   |
| {m_x0z|(0.5,0.0,0.0)} |   +x+1/2,−y,+z   |
+---------------------+-----------------+
..................

**********************
space group: 67:a-cb {'Hall': ' −B 2c 2', 'HM': ' B m a m'}
Crystal system: Orthorhombic
Setting: a-cb
+x,+y,+z
−x,−y,+z+1/2
+x,−y,−z
..................
+---------------------+-----------------+
|        Seitz        |      Jones      |
+---------------------+-----------------+
|    {1|(0.0,0.0,0.0)}    |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.5)} |   −x,−y,+z+1/2   |
| {2_x00|(0.0,0.0,0.0)} |     +x,−y,−z     |
| {2_0y0|(0.0,0.0,0.5)} |   −x,+y,−z+1/2   |
|    {−1|(0.0,0.0,0.0)}    |     −x,−y,−z     |
| {m_xy0|(0.0,0.0,0.5)} |   +x,+y,−z+1/2   |
| {m_0yz|(0.0,0.0,0.0)} |     −x,+y,+z     |
| {m_x0z|(0.0,0.0,0.5)} |   +x,−y,+z+1/2   |
|    {1|(0.5,0.0,0.5)}    |  +x+1/2,+y,+z+1/2  |
```

```
| {2_00z|(0.5,0.0,0.0)} |    -x+1/2,-y,+z    |
| {2_x00|(0.5,0.0,0.5)} |  +x+1/2,-y,-z+1/2  |
| {2_0y0|(0.5,0.0,0.0)} |    -x+1/2,+y,-z    |
|   {-1|(0.5,0.0,0.5)}  |  -x+1/2,-y,-z+1/2  |
| {m_xy0|(0.5,0.0,0.0)} |    +x+1/2,+y,-z    |
| {m_0yz|(0.5,0.0,0.5)} |  -x+1/2,+y,+z+1/2  |
| {m_x0z|(0.5,0.0,0.0)} |    +x+1/2,-y,+z    |
+----------------------+-------------------+
.................

*********************
space group: 68:1 {'Hall': 'C 2 2 -1bc', 'HM': 'C c c a:1'}
Crystal system: Orthorhombic
Setting: 1
+x,+y,+z
-x,-y,+z
+x,-y,-z
-x,-y+1/2,-z+1/2
.................
+----------------------+-------------------+
|         Seitz        |       Jones       |
+----------------------+-------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z      |
| {2_x00|(0.0,0.0,0.0)} |     +x,-y,-z      |
|   {-1|(0.0,0.5,0.5)}  |  -x,-y+1/2,-z+1/2 |
|    {1|(0.5,0.5,0.0)}  |  +x+1/2,+y+1/2,+z |
| {2_00z|(0.5,0.5,0.0)} |  -x+1/2,-y+1/2,+z |
| {2_x00|(0.5,0.5,0.0)} |  +x+1/2,-y+1/2,-z |
|   {-1|(0.5,0.0,0.5)}  |  -x+1/2,-y,-z+1/2 |
+----------------------+-------------------+
.................

*********************
space group: 68:2 {'Hall': ' -C 2b 2bc', 'HM': 'C c c a:2'}
Crystal system: Orthorhombic
Setting: 2
+x,+y,+z
-x,-y+1/2,+z
+x,-y+1/2,-z+1/2
.................
+----------------------+---------------------+
|         Seitz        |        Jones        |
+----------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z       |
| {2_00z|(0.0,0.5,0.0)} |     -x,-y+1/2,+z    |
| {2_x00|(0.0,0.5,0.5)} |  +x,-y+1/2,-z+1/2   |
| {2_0y0|(0.0,0.0,0.5)} |     -x,+y,-z+1/2    |
|   {-1|(0.0,0.0,0.0)} |      -x,-y,-z       |
| {m_xy0|(0.0,0.5,0.0)} |     +x,+y+1/2,-z    |
| {m_0yz|(0.0,0.5,0.5)} |  -x,+y+1/2,+z+1/2   |
| {m_x0z|(0.0,0.0,0.5)} |     +x,-y,+z+1/2    |
|    {1|(0.5,0.5,0.0)}  |  +x+1/2,+y+1/2,+z   |
| {2_00z|(0.5,0.0,0.0)} |     -x+1/2,-y,+z    |
```

```
| {2_x00|(0.5,0.0,0.5)} |    +x+1/2,-y,-z+1/2     |
| {2_0y0|(0.5,0.5,0.5)} |  -x+1/2,+y+1/2,-z+1/2  |
|   {-1|(0.5,0.5,0.0)}  |   -x+1/2,-y+1/2,-z     |
| {m_xy0|(0.5,0.0,0.0)} |      +x+1/2,+y,-z       |
| {m_0yz|(0.5,0.0,0.5)} |    -x+1/2,+y,+z+1/2    |
| {m_x0z|(0.5,0.5,0.5)} |  +x+1/2,-y+1/2,+z+1/2  |
+----------------------+----------------------+
```

....

```
**********************
space group: 68:1ba-c {'Hall': 'C 2 2 -1bc', 'HM': 'C c c b:1'}
Crystal system: Orthorhombic
Setting: 1ba-c
+x,+y,+z
-x,-y,+z
+x,-y,-z
-x,-y+1/2,-z+1/2
```

....

```
+---------------------+------------------+
|        Seitz        |      Jones       |
+---------------------+------------------+
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)} |      -x,-y,+z      |
| {2_x00|(0.0,0.0,0.0)} |      +x,-y,-z      |
|   {-1|(0.0,0.5,0.5)}  |  -x,-y+1/2,-z+1/2  |
|   {1|(0.5,0.5,0.0)}   |  +x+1/2,+y+1/2,+z  |
| {2_00z|(0.5,0.5,0.0)} |  -x+1/2,-y+1/2,+z  |
| {2_x00|(0.5,0.5,0.0)} |  +x+1/2,-y+1/2,-z  |
|   {-1|(0.5,0.0,0.5)}  |  -x+1/2,-y,-z+1/2  |
+---------------------+------------------+
```

....

```
**********************
space group: 68:2ba-c {'Hall': ' -C 2b 2c', 'HM': 'C c c b:2'}
Crystal system: Orthorhombic
Setting: 2ba-c
+x,+y,+z
-x,-y+1/2,+z
+x,-y,-z+1/2
```

....

```
+---------------------+----------------------+
|        Seitz        |        Jones         |
+---------------------+----------------------+
|    {1|(0.0,0.0,0.0)}   |       +x,+y,+z        |
| {2_00z|(0.0,0.5,0.0)} |     -x,-y+1/2,+z      |
| {2_x00|(0.0,0.0,0.5)} |     +x,-y,-z+1/2      |
| {2_0y0|(0.0,0.5,0.5)} |   -x,+y+1/2,-z+1/2    |
|   {-1|(0.0,0.0,0.0)}  |       -x,-y,-z        |
| {m_xy0|(0.0,0.5,0.0)} |     +x,+y+1/2,-z      |
| {m_0yz|(0.0,0.0,0.5)} |     -x,+y,+z+1/2      |
| {m_x0z|(0.0,0.5,0.5)} |   +x,-y+1/2,+z+1/2    |
|   {1|(0.5,0.5,0.0)}   |   +x+1/2,+y+1/2,+z    |
| {2_00z|(0.5,0.0,0.0)} |     -x+1/2,-y,+z      |
| {2_x00|(0.5,0.5,0.5)} |  +x+1/2,-y+1/2,-z+1/2 |
```

```
| {2_0y0|(0.5,0.0,0.5)} |    −x+1/2,+y,−z+1/2    |
|   {−1|(0.5,0.5,0.0)}  |   −x+1/2,−y+1/2,−z     |
| {m_xy0|(0.5,0.0,0.0)} |     +x+1/2,+y,−z       |
| {m_0yz|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,+z+1/2   |
| {m_x0z|(0.5,0.0,0.5)} |    +x+1/2,−y,+z+1/2    |
+-----------------------+-----------------------+
```
....

```
**********************
space group: 68:1cab {'Hall': 'A 2 2 −1ac', 'HM': ' A b a a:1'}
Crystal system: Orthorhombic
Setting: 1cab
+x,+y,+z
−x,−y,+z
+x,−y,−z
−x+1/2,−y,−z+1/2
```
....

```
+----------------------+------------------+
|         Seitz        |       Jones      |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)}|     −x,−y,+z     |
| {2_x00|(0.0,0.0,0.0)}|     +x,−y,−z     |
|    {−1|(0.5,0.0,0.5)}| −x+1/2,−y,−z+1/2 |
|    {1|(0.0,0.5,0.5)} | +x,+y+1/2,+z+1/2 |
| {2_00z|(0.0,0.5,0.5)}| −x,−y+1/2,+z+1/2 |
| {2_x00|(0.0,0.5,0.5)}| +x,−y+1/2,−z+1/2 |
|    {−1|(0.5,0.5,0.0)}| −x+1/2,−y+1/2,−z |
+----------------------+------------------+
```
....

```
**********************
space group: 68:2cab {'Hall': ' −A 2a 2c', 'HM': ' A b a a:2'}
Crystal system: Orthorhombic
Setting: 2cab
+x,+y,+z
−x+1/2,−y,+z
+x,−y,−z+1/2
```
....

```
+----------------------+----------------------+
|         Seitz        |         Jones        |
+----------------------+----------------------+
|    {1|(0.0,0.0,0.0)} |       +x,+y,+z       |
| {2_00z|(0.5,0.0,0.0)}|      −x+1/2,−y,+z    |
| {2_x00|(0.0,0.0,0.5)}|     +x,−y,−z+1/2     |
| {2_0y0|(0.5,0.0,0.5)}|    −x+1/2,+y,−z+1/2  |
|    {−1|(0.0,0.0,0.0)}|       −x,−y,−z       |
| {m_xy0|(0.5,0.0,0.0)}|      +x+1/2,+y,−z    |
| {m_0yz|(0.0,0.0,0.5)}|     −x,+y,+z+1/2     |
| {m_x0z|(0.5,0.0,0.5)}|    +x+1/2,−y,+z+1/2  |
|    {1|(0.0,0.5,0.5)} |   +x,+y+1/2,+z+1/2   |
| {2_00z|(0.5,0.5,0.5)}| −x+1/2,−y+1/2,+z+1/2 |
| {2_x00|(0.0,0.5,0.0)}|      +x,−y+1/2,−z    |
| {2_0y0|(0.5,0.5,0.0)}|    −x+1/2,+y+1/2,−z  |
```

```
|    {-1|(0.0,0.5,0.5)}   |    -x,-y+1/2,-z+1/2    |
| {m_xy0|(0.5,0.5,0.5)}   |  +x+1/2,+y+1/2,-z+1/2 |
| {m_0yz|(0.0,0.5,0.0)}   |      -x,+y+1/2,+z      |
| {m_x0z|(0.5,0.5,0.0)}   |    +x+1/2,-y+1/2,+z    |
+---------------------+--------------------+
..................

*********************
space group: 68:1-cba {'Hall': 'A 2 2 -1ac', 'HM': 'A c a a:1'}
Crystal system: Orthorhombic
Setting: 1-cba
+x,+y,+z
-x,-y,+z
+x,-y,-z
-x+1/2,-y,-z+1/2
..................
+---------------------+------------------+
|        Seitz        |       Jones      |
+---------------------+------------------+
|    {1|(0.0,0.0,0.0)}    |     +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)}   |     -x,-y,+z      |
| {2_x00|(0.0,0.0,0.0)}   |     +x,-y,-z      |
|    {-1|(0.5,0.0,0.5)}   |  -x+1/2,-y,-z+1/2 |
|    {1|(0.0,0.5,0.5)}    |  +x,+y+1/2,+z+1/2 |
| {2_00z|(0.0,0.5,0.5)}   |  -x,-y+1/2,+z+1/2 |
| {2_x00|(0.0,0.5,0.5)}   |  +x,-y+1/2,-z+1/2 |
|    {-1|(0.5,0.5,0.0)}   |  -x+1/2,-y+1/2,-z |
+---------------------+------------------+
..................

*********************
space group: 68:2-cba {'Hall': ' -A 2ac 2c', 'HM': 'A c a a:2'}
Crystal system: Orthorhombic
Setting: 2-cba
+x,+y,+z
-x+1/2,-y,+z+1/2
+x,-y,-z+1/2
..................
+---------------------+--------------------+
|        Seitz        |        Jones       |
+---------------------+--------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {2_00z|(0.5,0.0,0.5)}   |   -x+1/2,-y,+z+1/2  |
| {2_x00|(0.0,0.0,0.5)}   |     +x,-y,-z+1/2    |
| {2_0y0|(0.5,0.0,0.0)}   |     -x+1/2,+y,-z    |
|    {-1|(0.0,0.0,0.0)}    |      -x,-y,-z       |
| {m_xy0|(0.5,0.0,0.5)}   |   +x+1/2,+y,-z+1/2  |
| {m_0yz|(0.0,0.0,0.5)}   |     -x,+y,+z+1/2    |
| {m_x0z|(0.5,0.0,0.0)}   |     +x+1/2,-y,+z    |
|    {1|(0.0,0.5,0.5)}    |  +x,+y+1/2,+z+1/2   |
| {2_00z|(0.5,0.5,0.0)}   |   -x+1/2,-y+1/2,+z  |
| {2_x00|(0.0,0.5,0.0)}   |     +x,-y+1/2,-z    |
| {2_0y0|(0.5,0.5,0.5)}   | -x+1/2,+y+1/2,-z+1/2|
|    {-1|(0.0,0.5,0.5)}   |   -x,-y+1/2,-z+1/2  |
```

```
| {m_xy0|(0.5,0.5,0.0)} |   +x+1/2,+y+1/2,-z   |
| {m_0yz|(0.0,0.5,0.0)} |    -x,+y+1/2,+z      |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
+----------------------+----------------------+
..................

**********************
space group: 68:1bca {'Hall': 'B 2 2 -1bc', 'HM': ' B b c b:1'}
Crystal system: Orthorhombic
Setting: 1bca
+x,+y,+z
-x,-y,+z
+x,-y,-z
-x,-y+1/2,-z+1/2

..................
+----------------------+------------------+
|        Seitz         |       Jones      |
+----------------------+------------------+
|    {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z     |
| {2_x00|(0.0,0.0,0.0)} |     +x,-y,-z     |
|   {-1|(0.0,0.5,0.5)} | -x,-y+1/2,-z+1/2 |
|    {1|(0.5,0.0,0.5)} | +x+1/2,+y,+z+1/2 |
| {2_00z|(0.5,0.0,0.5)} | -x+1/2,-y,+z+1/2 |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,-y,-z+1/2 |
|   {-1|(0.5,0.5,0.0)} |   -x+1/2,-y+1/2,-z |
+----------------------+------------------+

..................

**********************
space group: 68:2bca {'Hall': ' -B 2bc 2b', 'HM': ' B b c b:2'}
Crystal system: Orthorhombic
Setting: 2bca
+x,+y,+z
-x,-y+1/2,+z+1/2
+x,-y+1/2,-z

..................
+----------------------+----------------------+
|        Seitz         |         Jones        |
+----------------------+----------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {2_00z|(0.0,0.5,0.5)} |   -x,-y+1/2,+z+1/2   |
| {2_x00|(0.0,0.5,0.0)} |    +x,-y+1/2,-z      |
| {2_0y0|(0.0,0.0,0.5)} |    -x,+y,-z+1/2      |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z         |
| {m_xy0|(0.0,0.5,0.5)} |   +x,+y+1/2,-z+1/2   |
| {m_0yz|(0.0,0.5,0.0)} |    -x,+y+1/2,+z      |
| {m_x0z|(0.0,0.0,0.5)} |    +x,-y,+z+1/2      |
|    {1|(0.5,0.0,0.5)} |   +x+1/2,+y,+z+1/2   |
| {2_00z|(0.5,0.5,0.0)} |   -x+1/2,-y+1/2,+z   |
| {2_x00|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,-z+1/2 |
| {2_0y0|(0.5,0.0,0.0)} |    -x+1/2,+y,-z      |
|   {-1|(0.5,0.0,0.5)} |   -x+1/2,-y,-z+1/2   |
| {m_xy0|(0.5,0.5,0.0)} |   +x+1/2,+y+1/2,-z   |
```

```
| {m_0yz|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.0,0.0)} |     +x+1/2,-y,+z      |
+---------------------+---------------------+
```
....

```
**********************
space group: 68:1a-cb {'Hall': 'B 2 2 -1bc', 'HM': 'B b a b:1'}
Crystal system: Orthorhombic
Setting: 1a-cb
+x,+y,+z
-x,-y,+z
+x,-y,-z
-x,-y+1/2,-z+1/2
```
....

```
+---------------------+------------------+
|        Seitz        |      Jones       |
+---------------------+------------------+
|    {1|(0.0,0.0,0.0)}  |    +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)} |    -x,-y,+z      |
| {2_x00|(0.0,0.0,0.0)} |    +x,-y,-z      |
|   {-1|(0.0,0.5,0.5)}  | -x,-y+1/2,-z+1/2 |
|    {1|(0.5,0.0,0.5)}  | +x+1/2,+y,+z+1/2 |
| {2_00z|(0.5,0.0,0.5)} | -x+1/2,-y,+z+1/2 |
| {2_x00|(0.5,0.0,0.5)} | +x+1/2,-y,-z+1/2 |
|   {-1|(0.5,0.5,0.0)}  |   -x+1/2,-y+1/2,-z |
+---------------------+------------------+
```
....

```
**********************
space group: 68:2a-cb {'Hall': ' -B 2b 2bc', 'HM': 'B b a b:2'}
Crystal system: Orthorhombic
Setting: 2a-cb
+x,+y,+z
-x,-y+1/2,+z
+x,-y+1/2,-z+1/2
```
....

```
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)}  |      +x,+y,+z       |
| {2_00z|(0.0,0.5,0.0)} |    -x,-y+1/2,+z     |
| {2_x00|(0.0,0.5,0.5)} |  +x,-y+1/2,-z+1/2   |
| {2_0y0|(0.0,0.0,0.5)} |    -x,+y,-z+1/2     |
|   {-1|(0.0,0.0,0.0)}  |      -x,-y,-z       |
| {m_xy0|(0.0,0.5,0.0)} |    +x,+y+1/2,-z     |
| {m_0yz|(0.0,0.5,0.5)} |  -x,+y+1/2,+z+1/2   |
| {m_x0z|(0.0,0.0,0.5)} |    +x,-y,+z+1/2     |
|    {1|(0.5,0.0,0.5)}  |  +x+1/2,+y,+z+1/2   |
| {2_00z|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,+z+1/2 |
| {2_x00|(0.5,0.5,0.0)} |   +x+1/2,-y+1/2,-z  |
| {2_0y0|(0.5,0.0,0.0)} |    -x+1/2,+y,-z     |
|   {-1|(0.5,0.0,0.5)}  |  -x+1/2,-y,-z+1/2   |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,-z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} |   -x+1/2,+y+1/2,+z  |
```

```
| {m_x0z|(0.5,0.0,0.0)} |      +x+1/2,-y,+z      |
+---------------------+---------------------+
.................

*********************
space group: 69 {'Hall': ' -F 2 2', 'HM': 'F m m m'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y,+z
+x,-y,-z
.................
```

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.0,0.0)}	-x,-y,+z
{2_x00|(0.0,0.0,0.0)}	+x,-y,-z
{2_0y0|(0.0,0.0,0.0)}	-x,+y,-z
{-1|(0.0,0.0,0.0)}	-x,-y,-z
{m_xy0|(0.0,0.0,0.0)}	+x,+y,-z
{m_0yz|(0.0,0.0,0.0)}	-x,+y,+z
{m_x0z|(0.0,0.0,0.0)}	+x,-y,+z
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{2_00z|(0.0,0.5,0.5)}	-x,-y+1/2,+z+1/2
{2_x00|(0.0,0.5,0.5)}	+x,-y+1/2,-z+1/2
{2_0y0|(0.0,0.5,0.5)}	-x,+y+1/2,-z+1/2
{-1|(0.0,0.5,0.5)}	-x,-y+1/2,-z+1/2
{m_xy0|(0.0,0.5,0.5)}	+x,+y+1/2,-z+1/2
{m_0yz|(0.0,0.5,0.5)}	-x,+y+1/2,+z+1/2
{m_x0z|(0.0,0.5,0.5)}	+x,-y+1/2,+z+1/2
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{2_00z|(0.5,0.0,0.5)}	-x+1/2,-y,+z+1/2
{2_x00|(0.5,0.0,0.5)}	+x+1/2,-y,-z+1/2
{2_0y0|(0.5,0.0,0.5)}	-x+1/2,+y,-z+1/2
{-1|(0.5,0.0,0.5)}	-x+1/2,-y,-z+1/2
{m_xy0|(0.5,0.0,0.5)}	+x+1/2,+y,-z+1/2
{m_0yz|(0.5,0.0,0.5)}	-x+1/2,+y,+z+1/2
{m_x0z|(0.5,0.0,0.5)}	+x+1/2,-y,+z+1/2
{1|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z
{2_00z|(0.5,0.5,0.0)}	-x+1/2,-y+1/2,+z
{2_x00|(0.5,0.5,0.0)}	+x+1/2,-y+1/2,-z
{2_0y0|(0.5,0.5,0.0)}	-x+1/2,+y+1/2,-z
{-1|(0.5,0.5,0.0)}	-x+1/2,-y+1/2,-z
{m_xy0|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,-z
{m_0yz|(0.5,0.5,0.0)}	-x+1/2,+y+1/2,+z
{m_x0z|(0.5,0.5,0.0)}	+x+1/2,-y+1/2,+z

```
.................

*********************
space group: 70:1 {'Hall': 'F 2 2 -1d', 'HM': 'F d d d:1'}
Crystal system: Orthorhombic
Setting: 1
+x,+y,+z
```

-x,-y,+z
+x,-y,-z
-x+1/4,-y+1/4,-z+1/4
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.0,0.0)}	-x,-y,+z
{2_x00|(0.0,0.0,0.0)}	+x,-y,-z
{-1|(0.25,0.25,0.25)}	-x+1/4,-y+1/4,-z+1/4
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{2_00z|(0.0,0.5,0.5)}	-x,-y+1/2,+z+1/2
{2_x00|(0.0,0.5,0.5)}	+x,-y+1/2,-z+1/2
{-1|(0.25,0.75,0.75)}	-x+1/4,-y+3/4,-z+3/4
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{2_00z|(0.5,0.0,0.5)}	-x+1/2,-y,+z+1/2
{2_x00|(0.5,0.0,0.5)}	+x+1/2,-y,-z+1/2
{-1|(0.75,0.25,0.75)}	-x+3/4,-y+1/4,-z+3/4
{1|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z
{2_00z|(0.5,0.5,0.0)}	-x+1/2,-y+1/2,+z
{2_x00|(0.5,0.5,0.0)}	+x+1/2,-y+1/2,-z
{-1|(0.75,0.75,0.25)}	-x+3/4,-y+3/4,-z+1/4

....

****
space group: 70:2 {'Hall': ' -F 2uv 2vw', 'HM': 'F d d d:2'}
Crystal system: Orthorhombic
Setting: 2
+x,+y,+z
-x+1/4,-y+1/4,+z
+x,-y+1/4,-z+1/4
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.25,0.25,0.0)}	-x+1/4,-y+1/4,+z
{2_x00|(0.0,0.25,0.25)}	+x,-y+1/4,-z+1/4
{2_0y0|(0.25,0.0,0.25)}	-x+1/4,+y,-z+1/4
{-1|(0.0,0.0,0.0)}	-x,-y,-z
{m_xy0|(0.25,0.25,0.0)}	+x+1/4,+y+1/4,-z
{m_0yz|(0.0,0.25,0.25)}	-x,+y+1/4,+z+1/4
{m_x0z|(0.25,0.0,0.25)}	+x+1/4,-y,+z+1/4
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{2_00z|(0.25,0.75,0.5)}	-x+1/4,-y+3/4,+z+1/2
{2_x00|(0.0,0.75,0.75)}	+x,-y+3/4,-z+3/4
{2_0y0|(0.25,0.5,0.75)}	-x+1/4,+y+1/2,-z+3/4
{-1|(0.0,0.5,0.5)}	-x,-y+1/2,-z+1/2
{m_xy0|(0.25,0.75,0.5)}	+x+1/4,+y+3/4,-z+1/2
{m_0yz|(0.0,0.75,0.75)}	-x,+y+3/4,+z+3/4
{m_x0z|(0.25,0.5,0.75)}	+x+1/4,-y+1/2,+z+3/4
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2

```
| {2_00z|(0.75,0.25,0.5)} |  −x+3/4,−y+1/4,+z+1/2 |
| {2_x00|(0.5,0.25,0.75)} |  +x+1/2,−y+1/4,−z+3/4 |
| {2_0y0|(0.75,0.0,0.75)} |   −x+3/4,+y,−z+3/4    |
|    {−1|(0.5,0.0,0.5)}    |   −x+1/2,−y,−z+1/2    |
| {m_xy0|(0.75,0.25,0.5)} |  +x+3/4,+y+1/4,−z+1/2 |
| {m_0yz|(0.5,0.25,0.75)} |  −x+1/2,+y+1/4,+z+3/4 |
| {m_x0z|(0.75,0.0,0.75)} |   +x+3/4,−y,+z+3/4    |
|     {1|(0.5,0.5,0.0)}    |   +x+1/2,+y+1/2,+z    |
| {2_00z|(0.75,0.75,0.0)} |   −x+3/4,−y+3/4,+z    |
| {2_x00|(0.5,0.75,0.25)} |  +x+1/2,−y+3/4,−z+1/4 |
| {2_0y0|(0.75,0.5,0.25)} |  −x+3/4,+y+1/2,−z+1/4 |
|    {−1|(0.5,0.5,0.0)}    |   −x+1/2,−y+1/2,−z    |
| {m_xy0|(0.75,0.75,0.0)} |   +x+3/4,+y+3/4,−z    |
| {m_0yz|(0.5,0.75,0.25)} |  −x+1/2,+y+3/4,+z+1/4 |
| {m_x0z|(0.75,0.5,0.25)} |  +x+3/4,−y+1/2,+z+1/4 |
+───────────────────────+──────────────────────+
```
....

```
**********************
space group: 71 {'Hall': ' −I 2 2', 'HM': 'I m m m'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
+x,−y,−z
```
....

```
+─────────────────────+─────────────────────+
|        Seitz        |        Jones        |
+─────────────────────+─────────────────────+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z      |
| {2_00z|(0.0,0.0,0.0)} |      −x,−y,+z      |
| {2_x00|(0.0,0.0,0.0)} |      +x,−y,−z      |
| {2_0y0|(0.0,0.0,0.0)} |      −x,+y,−z      |
|    {−1|(0.0,0.0,0.0)}    |      −x,−y,−z      |
| {m_xy0|(0.0,0.0,0.0)} |      +x,+y,−z      |
| {m_0yz|(0.0,0.0,0.0)} |      −x,+y,+z      |
| {m_x0z|(0.0,0.0,0.0)} |      +x,−y,+z      |
|    {1|(0.5,0.5,0.5)}    | +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.5,0.5)} | −x+1/2,−y+1/2,+z+1/2 |
| {2_x00|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,−z+1/2 |
| {2_0y0|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,−z+1/2 |
|    {−1|(0.5,0.5,0.5)}    | −x+1/2,−y+1/2,−z+1/2 |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,−z+1/2 |
| {m_0yz|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2 |
+─────────────────────+─────────────────────+
```
....

```
**********************
space group: 72 {'Hall': ' −I 2 2c', 'HM': 'I b a m'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y,+z
+x,−y,−z+1/2
```
....

```
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z        |
| {2_x00|(0.0,0.0,0.5)} |    +x,-y,-z+1/2     |
| {2_0y0|(0.0,0.0,0.5)} |    -x,+y,-z+1/2     |
|   {-1|(0.0,0.0,0.0)} |     -x,-y,-z        |
| {m_xy0|(0.0,0.0,0.0)} |     +x,+y,-z        |
| {m_0yz|(0.0,0.0,0.5)} |    -x,+y,+z+1/2     |
| {m_x0z|(0.0,0.0,0.5)} |    +x,-y,+z+1/2     |
|    {1|(0.5,0.5,0.5)} |  +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.5,0.5)} |  -x+1/2,-y+1/2,+z+1/2 |
| {2_x00|(0.5,0.5,0.0)} |   +x+1/2,-y+1/2,-z   |
| {2_0y0|(0.5,0.5,0.0)} |   -x+1/2,+y+1/2,-z   |
|   {-1|(0.5,0.5,0.5)} |  -x+1/2,-y+1/2,-z+1/2 |
| {m_xy0|(0.5,0.5,0.5)} |  +x+1/2,+y+1/2,-z+1/2 |
| {m_0yz|(0.5,0.5,0.0)} |   -x+1/2,+y+1/2,+z   |
| {m_x0z|(0.5,0.5,0.0)} |   +x+1/2,-y+1/2,+z   |
+---------------------+---------------------+
..................

**********************
space group: 72:cab {'Hall': ' -I 2a 2', 'HM': 'I m c b'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
-x+1/2,-y,+z
+x,-y,-z
..................
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {2_00z|(0.5,0.0,0.0)} |    -x+1/2,-y,+z     |
| {2_x00|(0.0,0.0,0.0)} |      +x,-y,-z       |
| {2_0y0|(0.5,0.0,0.0)} |    -x+1/2,+y,-z     |
|   {-1|(0.0,0.0,0.0)} |      -x,-y,-z       |
| {m_xy0|(0.5,0.0,0.0)} |    +x+1/2,+y,-z     |
| {m_0yz|(0.0,0.0,0.0)} |      -x,+y,+z       |
| {m_x0z|(0.5,0.0,0.0)} |    +x+1/2,-y,+z     |
|    {1|(0.5,0.5,0.5)} |  +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.0,0.5,0.5)} |   -x,-y+1/2,+z+1/2  |
| {2_x00|(0.5,0.5,0.5)} |  +x+1/2,-y+1/2,-z+1/2 |
| {2_0y0|(0.0,0.5,0.5)} |   -x,+y+1/2,-z+1/2  |
|   {-1|(0.5,0.5,0.5)} |  -x+1/2,-y+1/2,-z+1/2 |
| {m_xy0|(0.0,0.5,0.5)} |   +x,+y+1/2,-z+1/2  |
| {m_0yz|(0.5,0.5,0.5)} |  -x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.0,0.5,0.5)} |   +x,-y+1/2,+z+1/2  |
+---------------------+---------------------+
..................

**********************
space group: 72:bca {'Hall': ' -I 2b 2b', 'HM': 'I c m a'}
```

Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
−x,−y+1/2,+z
+x,−y+1/2,−z
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.5,0.0)}	−x,−y+1/2,+z
{2_x00|(0.0,0.5,0.0)}	+x,−y+1/2,−z
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0|(0.0,0.5,0.0)}	+x,+y+1/2,−z
{m_0yz|(0.0,0.5,0.0)}	−x,+y+1/2,+z
{m_x0z|(0.0,0.0,0.0)}	+x,−y,+z
{1|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2
{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{2_x00|(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{2_0y0|(0.5,0.5,0.5)}	−x+1/2,+y+1/2,−z+1/2
{−1|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,−z+1/2
{m_xy0|(0.5,0.0,0.5)}	+x+1/2,+y,−z+1/2
{m_0yz|(0.5,0.0,0.5)}	−x+1/2,+y,+z+1/2
{m_x0z|(0.5,0.5,0.5)}	+x+1/2,−y+1/2,+z+1/2

....

****
space group: 73 {'Hall': ' −I 2b 2c', 'HM': 'I b c a'}
Crystal system: Orthorhombic
+x,+y,+z
−x,−y+1/2,+z
+x,−y,−z+1/2
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.5,0.0)}	−x,−y+1/2,+z
{2_x00|(0.0,0.0,0.5)}	+x,−y,−z+1/2
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0|(0.0,0.5,0.0)}	+x,+y+1/2,−z
{m_0yz|(0.0,0.0,0.5)}	−x,+y,+z+1/2
{m_x0z|(0.0,0.5,0.5)}	+x,−y+1/2,+z+1/2
{1|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2
{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{2_x00|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{2_0y0|(0.5,0.0,0.0)}	−x+1/2,+y,−z
{−1|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,−z+1/2
{m_xy0|(0.5,0.0,0.5)}	+x+1/2,+y,−z+1/2
{m_0yz|(0.5,0.5,0.0)}	−x+1/2,+y+1/2,+z
{m_x0z|(0.5,0.0,0.0)}	+x+1/2,−y,+z

```
+--------------------+--------------------+
..................

*********************
space group: 73:ba-c {'Hall': ' -I 2a 2b', 'HM': ' I c a b'}
Crystal system: Orthorhombic
Setting: ba-c
+x,+y,+z
-x+1/2,-y,+z
+x,-y+1/2,-z
..................
+--------------------+--------------------+
|       Seitz        |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {2_00z|(0.5,0.0,0.0)} |     -x+1/2,-y,+z    |
| {2_x00|(0.0,0.5,0.0)} |     +x,-y+1/2,-z    |
| {2_0y0|(0.5,0.5,0.0)} |   -x+1/2,+y+1/2,-z  |
|    {-1|(0.0,0.0,0.0)}   |       -x,-y,-z      |
| {m_xy0|(0.5,0.0,0.0)} |     +x+1/2,+y,-z    |
| {m_0yz|(0.0,0.5,0.0)} |     -x,+y+1/2,+z    |
| {m_x0z|(0.5,0.5,0.0)} |   +x+1/2,-y+1/2,+z  |
|    {1|(0.5,0.5,0.5)}    | +x+1/2,+y+1/2,+z+1/2|
| {2_00z|(0.0,0.5,0.5)} |   -x,-y+1/2,+z+1/2  |
| {2_x00|(0.5,0.0,0.5)} |   +x+1/2,-y,-z+1/2  |
| {2_0y0|(0.0,0.0,0.5)} |    -x,+y,-z+1/2     |
|    {-1|(0.5,0.5,0.5)}   | -x+1/2,-y+1/2,-z+1/2|
| {m_xy0|(0.0,0.5,0.5)} |   +x,+y+1/2,-z+1/2  |
| {m_0yz|(0.5,0.0,0.5)} |   -x+1/2,+y,+z+1/2  |
| {m_x0z|(0.0,0.0,0.5)} |     +x,-y,+z+1/2    |
+--------------------+--------------------+
..................

*********************
space group: 74 {'Hall': ' -I 2b 2', 'HM': 'I m m a'}
Crystal system: Orthorhombic
+x,+y,+z
-x,-y+1/2,+z
+x,-y,-z
..................
+--------------------+--------------------+
|       Seitz        |        Jones       |
+--------------------+--------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {2_00z|(0.0,0.5,0.0)} |     -x,-y+1/2,+z    |
| {2_x00|(0.0,0.0,0.0)} |      +x,-y,-z       |
| {2_0y0|(0.0,0.5,0.0)} |     -x,+y+1/2,-z    |
|    {-1|(0.0,0.0,0.0)}   |       -x,-y,-z      |
| {m_xy0|(0.0,0.5,0.0)} |     +x,+y+1/2,-z    |
| {m_0yz|(0.0,0.0,0.0)} |       -x,+y,+z      |
| {m_x0z|(0.0,0.5,0.0)} |     +x,-y+1/2,+z    |
|    {1|(0.5,0.5,0.5)}    | +x+1/2,+y+1/2,+z+1/2|
| {2_00z|(0.5,0.0,0.5)} |   -x+1/2,-y,+z+1/2  |
| {2_x00|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,-z+1/2|
```

```
| {2_0y0|(0.5,0.0,0.5)} |   −x+1/2,+y,−z+1/2   |
|   {−1|(0.5,0.5,0.5)}  | −x+1/2,−y+1/2,−z+1/2 |
| {m_xy0|(0.5,0.0,0.5)} |   +x+1/2,+y,−z+1/2   |
| {m_0yz|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.0,0.5)} |   +x+1/2,−y,+z+1/2   |
+-----------------------+----------------------+
.................

*********************
space group: 74:ba−c {'Hall': ' −I 2a 2a', 'HM': ' I m m b'}
Crystal system: Orthorhombic
Setting: ba−c
+x,+y,+z
−x+1/2,−y,+z
+x+1/2,−y,−z
.................
+-----------------------+----------------------+
|         Seitz         |         Jones        |
+-----------------------+----------------------+
|    {1|(0.0,0.0,0.0)}  |       +x,+y,+z        |
| {2_00z|(0.5,0.0,0.0)} |     −x+1/2,−y,+z      |
| {2_x00|(0.5,0.0,0.0)} |     +x+1/2,−y,−z      |
| {2_0y0|(0.0,0.0,0.0)} |       −x,+y,−z        |
|   {−1|(0.0,0.0,0.0)}  |       −x,−y,−z        |
| {m_xy0|(0.5,0.0,0.0)} |     +x+1/2,+y,−z      |
| {m_0yz|(0.5,0.0,0.0)} |     −x+1/2,+y,+z      |
| {m_x0z|(0.0,0.0,0.0)} |       +x,−y,+z        |
|    {1|(0.5,0.5,0.5)}  | +x+1/2,+y+1/2,+z+1/2  |
| {2_00z|(0.0,0.5,0.5)} |   −x,−y+1/2,+z+1/2    |
| {2_x00|(0.0,0.5,0.5)} |   +x,−y+1/2,−z+1/2    |
| {2_0y0|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,−z+1/2  |
|   {−1|(0.5,0.5,0.5)}  | −x+1/2,−y+1/2,−z+1/2  |
| {m_xy0|(0.0,0.5,0.5)} |   +x,+y+1/2,−z+1/2    |
| {m_0yz|(0.0,0.5,0.5)} |   −x,+y+1/2,+z+1/2    |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2  |
+-----------------------+----------------------+
.................

*********************
space group: 74:cab {'Hall': ' −I 2c 2c', 'HM': 'I b m m'}
Crystal system: Orthorhombic
Setting: cab
+x,+y,+z
−x,−y,+z+1/2
+x,−y,−z+1/2
.................
+-----------------------+----------------------+
|         Seitz         |         Jones        |
+-----------------------+----------------------+
|    {1|(0.0,0.0,0.0)}  |       +x,+y,+z        |
| {2_00z|(0.0,0.0,0.5)} |     −x,−y,+z+1/2      |
| {2_x00|(0.0,0.0,0.5)} |     +x,−y,−z+1/2      |
| {2_0y0|(0.0,0.0,0.0)} |       −x,+y,−z        |
|   {−1|(0.0,0.0,0.0)}  |       −x,−y,−z        |
```

```
| {m_xy0|(0.0,0.0,0.5)} |     +x,+y,−z+1/2      |
| {m_0yz|(0.0,0.0,0.5)} |     −x,+y,+z+1/2      |
| {m_x0z|(0.0,0.0,0.0)} |      +x,−y,+z         |
|   {1|(0.5,0.5,0.5)}   | +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.5,0.0)} |   −x+1/2,−y+1/2,+z    |
| {2_x00|(0.5,0.5,0.0)} |   +x+1/2,−y+1/2,−z    |
| {2_0y0|(0.5,0.5,0.5)} | −x+1/2,+y+1/2,−z+1/2 |
|   {−1|(0.5,0.5,0.5)}  | −x+1/2,−y+1/2,−z+1/2 |
| {m_xy0|(0.5,0.5,0.0)} |   +x+1/2,+y+1/2,−z    |
| {m_0yz|(0.5,0.5,0.0)} |   −x+1/2,+y+1/2,+z    |
| {m_x0z|(0.5,0.5,0.5)} | +x+1/2,−y+1/2,+z+1/2 |
+———————————————————————+——————————————————————+
..................

**********************
space group: 74:−cba {'Hall': ' −I 2 2b', 'HM': ' I c m m'}
Crystal system: Orthorhombic
Setting: −cba
+x,+y,+z
−x,−y,+z
+x,−y+1/2,−z
..................
+———————————————————————+——————————————————————+
|         Seitz         |        Jones         |
+———————————————————————+——————————————————————+
|    {1|(0.0,0.0,0.0)}  |       +x,+y,+z        |
| {2_00z|(0.0,0.0,0.0)} |       −x,−y,+z        |
| {2_x00|(0.0,0.5,0.0)} |     +x,−y+1/2,−z      |
| {2_0y0|(0.0,0.5,0.0)} |     −x,+y+1/2,−z      |
|   {−1|(0.0,0.0,0.0)}  |       −x,−y,−z        |
| {m_xy0|(0.0,0.0,0.0)} |       +x,+y,−z        |
| {m_0yz|(0.0,0.5,0.0)} |     −x,+y+1/2,+z      |
| {m_x0z|(0.0,0.5,0.0)} |     +x,−y+1/2,+z      |
|   {1|(0.5,0.5,0.5)}   | +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.5,0.5)} | −x+1/2,−y+1/2,+z+1/2 |
| {2_x00|(0.5,0.0,0.5)} |   +x+1/2,−y,−z+1/2   |
| {2_0y0|(0.5,0.0,0.5)} |   −x+1/2,+y,−z+1/2   |
|   {−1|(0.5,0.5,0.5)}  | −x+1/2,−y+1/2,−z+1/2 |
| {m_xy0|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,−z+1/2 |
| {m_0yz|(0.5,0.0,0.5)} |   −x+1/2,+y,+z+1/2   |
| {m_x0z|(0.5,0.0,0.5)} |   +x+1/2,−y,+z+1/2   |
+———————————————————————+——————————————————————+
..................

**********************
space group: 74:bca {'Hall': ' −I 2 2a', 'HM': 'I m c m'}
Crystal system: Orthorhombic
Setting: bca
+x,+y,+z
−x,−y,+z
+x+1/2,−y,−z
..................
+———————————————————————+——————————————————————+
|         Seitz         |        Jones         |
```

```
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {2_00z|(0.0,0.0,0.0)}   |      -x,-y,+z       |
| {2_x00|(0.5,0.0,0.0)}   |    +x+1/2,-y,-z     |
| {2_0y0|(0.5,0.0,0.0)}   |    -x+1/2,+y,-z     |
|    {-1|(0.0,0.0,0.0)}    |      -x,-y,-z       |
| {m_xy0|(0.0,0.0,0.0)}   |      +x,+y,-z       |
| {m_0yz|(0.5,0.0,0.0)}   |    -x+1/2,+y,+z     |
| {m_x0z|(0.5,0.0,0.0)}   |    +x+1/2,-y,+z     |
|    {1|(0.5,0.5,0.5)}     | +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.5,0.5)}   | -x+1/2,-y+1/2,+z+1/2 |
| {2_x00|(0.0,0.5,0.5)}   |   +x,-y+1/2,-z+1/2   |
| {2_0y0|(0.0,0.5,0.5)}   |   -x,+y+1/2,-z+1/2   |
|    {-1|(0.5,0.5,0.5)}    | -x+1/2,-y+1/2,-z+1/2 |
| {m_xy0|(0.5,0.5,0.5)}   | +x+1/2,+y+1/2,-z+1/2 |
| {m_0yz|(0.0,0.5,0.5)}   |   -x,+y+1/2,+z+1/2   |
| {m_x0z|(0.0,0.5,0.5)}   |   +x,-y+1/2,+z+1/2   |
+---------------------+---------------------+
```
....

****
space group: 74:a-cb {'Hall': ' -I 2c 2', 'HM': ' I m a m'}
Crystal system: Orthorhombic
Setting: a-cb
+x,+y,+z
-x,-y,+z+1/2
+x,-y,-z
....

```
+---------------------+---------------------+
|        Seitz        |        Jones        |
+---------------------+---------------------+
|    {1|(0.0,0.0,0.0)}    |      +x,+y,+z       |
| {2_00z|(0.0,0.0,0.5)}   |    -x,-y,+z+1/2     |
| {2_x00|(0.0,0.0,0.0)}   |      +x,-y,-z       |
| {2_0y0|(0.0,0.0,0.5)}   |    -x,+y,-z+1/2     |
|    {-1|(0.0,0.0,0.0)}    |      -x,-y,-z       |
| {m_xy0|(0.0,0.0,0.5)}   |    +x,+y,-z+1/2     |
| {m_0yz|(0.0,0.0,0.0)}   |      -x,+y,+z       |
| {m_x0z|(0.0,0.0,0.5)}   |    +x,-y,+z+1/2     |
|    {1|(0.5,0.5,0.5)}     | +x+1/2,+y+1/2,+z+1/2 |
| {2_00z|(0.5,0.5,0.0)}   |   -x+1/2,-y+1/2,+z   |
| {2_x00|(0.5,0.5,0.5)}   | +x+1/2,-y+1/2,-z+1/2 |
| {2_0y0|(0.5,0.5,0.0)}   |   -x+1/2,+y+1/2,-z   |
|    {-1|(0.5,0.5,0.5)}    | -x+1/2,-y+1/2,-z+1/2 |
| {m_xy0|(0.5,0.5,0.0)}   |   +x+1/2,+y+1/2,-z   |
| {m_0yz|(0.5,0.5,0.5)}   | -x+1/2,+y+1/2,+z+1/2 |
| {m_x0z|(0.5,0.5,0.0)}   |   +x+1/2,-y+1/2,+z   |
+---------------------+---------------------+
```
....

****
space group: 75 {'Hall': 'P 4', 'HM': 'P 4'}
Crystal system: Tetragonal
+x,+y,+z

-y,+x,+z
....
```
+-----------------------+----------+
|         Seitz         |  Jones   |
+-----------------------+----------+
|     {1|(0.0,0.0,0.0)} | +x,+y,+z |
| {4^+_00z|(0.0,0.0,0.0)} | -y,+x,+z |
|   {2_00z|(0.0,0.0,0.0)} | -x,-y,+z |
| {4^-_00z|(0.0,0.0,0.0)} | +y,-x,+z |
+-----------------------+----------+
```
....

****
space group: 76 {'Hall': ' P 4w', 'HM': 'P 41'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z+1/4
....
```
+-----------------------+--------------+
|         Seitz         |     Jones    |
+-----------------------+--------------+
|     {1|(0.0,0.0,0.0)} |   +x,+y,+z   |
| {4^+_00z|(0.0,0.0,0.25)} | -y,+x,+z+1/4 |
|   {2_00z|(0.0,0.0,0.5)} | -x,-y,+z+1/2 |
| {4^-_00z|(0.0,0.0,0.75)} | +y,-x,+z+3/4 |
+-----------------------+--------------+
```
....

****
space group: 77 {'Hall': ' P 4c', 'HM': 'P 42'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z+1/2
....
```
+-----------------------+--------------+
|         Seitz         |     Jones    |
+-----------------------+--------------+
|     {1|(0.0,0.0,0.0)} |   +x,+y,+z   |
| {4^+_00z|(0.0,0.0,0.5)} | -y,+x,+z+1/2 |
|   {2_00z|(0.0,0.0,0.0)} |   -x,-y,+z   |
| {4^-_00z|(0.0,0.0,0.5)} | +y,-x,+z+1/2 |
+-----------------------+--------------+
```
....

****
space group: 78 {'Hall': ' P 4cw', 'HM': 'P 43'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z+3/4
....
```
+-----------------------+--------------+
|         Seitz         |     Jones    |
+-----------------------+--------------+
|     {1|(0.0,0.0,0.0)} |   +x,+y,+z   |
```

```
| {4^+_00z|(0.0,0.0,0.75)} |  −y,+x,+z+3/4  |
|  {2_00z|(0.0,0.0,0.5)}   |  −x,−y,+z+1/2  |
| {4^−_00z|(0.0,0.0,0.25)} |  +y,−x,+z+1/4  |
+--------------------------+----------------+
```

....

```
**********************
space group: 79 {'Hall': 'I 4', 'HM': 'I 4'}
Crystal system: Tetragonal
+x,+y,+z
−y,+x,+z
```

....

```
+-----------------------+------------------------+
|         Seitz         |         Jones          |
+-----------------------+------------------------+
|    {1|(0.0,0.0,0.0)}  |        +x,+y,+z         |
| {4^+_00z|(0.0,0.0,0.0)}|       −y,+x,+z         |
|  {2_00z|(0.0,0.0,0.0)} |       −x,−y,+z         |
| {4^−_00z|(0.0,0.0,0.0)}|       +y,−x,+z         |
|    {1|(0.5,0.5,0.5)}  |  +x+1/2,+y+1/2,+z+1/2  |
| {4^+_00z|(0.5,0.5,0.5)}| −y+1/2,+x+1/2,+z+1/2  |
|  {2_00z|(0.5,0.5,0.5)} | −x+1/2,−y+1/2,+z+1/2  |
| {4^−_00z|(0.5,0.5,0.5)}| +y+1/2,−x+1/2,+z+1/2  |
+-----------------------+------------------------+
```

....

```
**********************
space group: 80 {'Hall': ' I 4bw', 'HM': 'I 41'}
Crystal system: Tetragonal
+x,+y,+z
−y,+x+1/2,+z+1/4
```

....

```
+------------------------+----------------------+
|         Seitz          |        Jones         |
+------------------------+----------------------+
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z        |
| {4^+_00z|(0.0,0.5,0.25)}|   −y,+x+1/2,+z+1/4  |
|  {2_00z|(0.5,0.5,0.5)}  |  −x+1/2,−y+1/2,+z+1/2|
| {4^−_00z|(0.5,0.0,0.75)}|   +y+1/2,−x,+z+3/4  |
|    {1|(0.5,0.5,0.5)}    |  +x+1/2,+y+1/2,+z+1/2|
| {4^+_00z|(0.5,0.0,0.75)}|   −y+1/2,+x,+z+3/4  |
|  {2_00z|(0.0,0.0,0.0)}  |      −x,−y,+z        |
| {4^−_00z|(0.0,0.5,0.25)}|   +y,−x+1/2,+z+1/4  |
+------------------------+----------------------+
```

....

```
**********************
space group: 81 {'Hall': ' P −4', 'HM': 'P −4'}
Crystal system: Tetragonal
+x,+y,+z
+y,−x,−z
```

....

```
+-----------------------+----------+
|         Seitz         |  Jones   |
```

```
+------------------------+----------+
|     {1|(0.0,0.0,0.0)}     | +x,+y,+z |
| {-4^+_00z|(0.0,0.0,0.0)} | +y,-x,-z |
|   {2_00z|(0.0,0.0,0.0)}   | -x,-y,+z |
| {-4^-_00z|(0.0,0.0,0.0)} | -y,+x,-z |
+------------------------+----------+
```

....

****
space group: 82 {'Hall': ' I -4', 'HM': 'I -4'}
Crystal system: Tetragonal
+x,+y,+z
+y,-x,-z

....

```
+------------------------+--------------------+
|          Seitz          |        Jones        |
+------------------------+--------------------+
|     {1|(0.0,0.0,0.0)}     |      +x,+y,+z       |
| {-4^+_00z|(0.0,0.0,0.0)} |      +y,-x,-z       |
|   {2_00z|(0.0,0.0,0.0)}   |      -x,-y,+z       |
| {-4^-_00z|(0.0,0.0,0.0)} |      -y,+x,-z       |
|     {1|(0.5,0.5,0.5)}     | +x+1/2,+y+1/2,+z+1/2 |
| {-4^+_00z|(0.5,0.5,0.5)} | +y+1/2,-x+1/2,-z+1/2 |
|   {2_00z|(0.5,0.5,0.5)}   | -x+1/2,-y+1/2,+z+1/2 |
| {-4^-_00z|(0.5,0.5,0.5)} | -y+1/2,+x+1/2,-z+1/2 |
+------------------------+--------------------+
```

....

****
space group: 83 {'Hall': ' -P 4', 'HM': 'P 4/m'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z

....

```
+------------------------+----------+
|          Seitz          | Jones   |
+------------------------+----------+
|     {1|(0.0,0.0,0.0)}     | +x,+y,+z |
|  {4^+_00z|(0.0,0.0,0.0)}  | -y,+x,+z |
|   {2_00z|(0.0,0.0,0.0)}   | -x,-y,+z |
|  {4^-_00z|(0.0,0.0,0.0)}  | +y,-x,+z |
|    {-1|(0.0,0.0,0.0)}     | -x,-y,-z |
| {-4^+_00z|(0.0,0.0,0.0)} | +y,-x,-z |
|   {m_xy0|(0.0,0.0,0.0)}   | +x,+y,-z |
| {-4^-_00z|(0.0,0.0,0.0)} | -y,+x,-z |
+------------------------+----------+
```

....

****
space group: 84 {'Hall': '-P 4c', 'HM': 'P 42/m'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z+1/2

....
```

```
+---------------------------+--------------+
|           Seitz           |    Jones     |
+---------------------------+--------------+
|      {1|(0.0,0.0,0.0)}    |   +x,+y,+z   |
|  {4^+_00z|(0.0,0.0,0.5)}  | −y,+x,+z+1/2 |
|   {2_00z|(0.0,0.0,0.0)}   |   −x,−y,+z   |
|  {4^−_00z|(0.0,0.0,0.5)}  | +y,−x,+z+1/2 |
|      {−1|(0.0,0.0,0.0)}   |   −x,−y,−z   |
| {−4^+_00z|(0.0,0.0,0.5)}  | +y,−x,−z+1/2 |
|   {m_xy0|(0.0,0.0,0.0)}   |   +x,+y,−z   |
| {−4^−_00z|(0.0,0.0,0.5)}  | −y,+x,−z+1/2 |
+---------------------------+--------------+

.................

**********************
space group: 85:1 {'Hall': 'P 4ab −1ab', 'HM': 'P 4/n:1'}
Crystal system: Tetragonal
Setting: 1
+x,+y,+z
−y+1/2,+x+1/2,+z
−x+1/2,−y+1/2,−z
.................
+-----------------------+------------------+
|         Seitz         |      Jones       |
+-----------------------+------------------+
|    {1|(0.0,0.0,0.0)}  |     +x,+y,+z     |
| {4^+_00z|(0.5,0.5,0.0)}| −y+1/2,+x+1/2,+z |
|    {−1|(0.5,0.5,0.0)}  | −x+1/2,−y+1/2,−z |
|   {2_00z|(0.0,0.0,0.0)}|     −x,−y,+z     |
+-----------------------+------------------+
.................

**********************
space group: 85:2 {'Hall': ' −P 4a', 'HM': 'P 4/n:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
−y+1/2,+x,+z
.................
+-----------------------+------------------+
|         Seitz         |      Jones       |
+-----------------------+------------------+
|    {1|(0.0,0.0,0.0)}  |     +x,+y,+z     |
| {4^+_00z|(0.5,0.0,0.0)}|    −y+1/2,+x,+z  |
|  {2_00z|(0.5,0.5,0.0)} | −x+1/2,−y+1/2,+z |
| {4^−_00z|(0.0,0.5,0.0)}|   +y,−x+1/2,+z   |
|    {−1|(0.0,0.0,0.0)}  |     −x,−y,−z     |
| {−4^+_00z|(0.5,0.0,0.0)}|   +y+1/2,−x,−z   |
|  {m_xy0|(0.5,0.5,0.0)} | +x+1/2,+y+1/2,−z |
| {−4^−_00z|(0.0,0.5,0.0)}|   −y,+x+1/2,−z   |
+-----------------------+------------------+

.................

**********************
```

```
space group: 86:1 {'Hall': ' P 4n -1n', 'HM': 'P 42/n:1'}
Crystal system: Tetragonal
Setting: 1
+x,+y,+z
-y+1/2,+x+1/2,+z+1/2
-x+1/2,-y+1/2,-z+1/2
..................
+------------------------+----------------------+
|          Seitz         |         Jones        |
+------------------------+----------------------+
|     {1|(0.0,0.0,0.0)}  |       +x,+y,+z       |
| {4^+_00z|(0.5,0.5,0.5)}| -y+1/2,+x+1/2,+z+1/2 |
|     {-1|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,-z+1/2 |
|   {2_00z|(0.0,0.0,0.0)}|       -x,-y,+z       |
+------------------------+----------------------+
..................


**********************
space group: 86:2 {'Hall': '-P 4bc', 'HM': 'P 42/n:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
-y,+x+1/2,+z+1/2
..................
+------------------------+------------------+
|          Seitz         |       Jones      |
+------------------------+------------------+
|     {1|(0.0,0.0,0.0)}  |     +x,+y,+z     |
| {4^+_00z|(0.0,0.5,0.5)}|  -y,+x+1/2,+z+1/2|
|  {2_00z|(0.5,0.5,0.0)} |  -x+1/2,-y+1/2,+z|
| {4^-_00z|(0.5,0.0,0.5)}|  +y+1/2,-x,+z+1/2|
|     {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
|{-4^+_00z|(0.0,0.5,0.5)}|  +y,-x+1/2,-z+1/2|
|   {m_xy0|(0.5,0.5,0.0)}|  +x+1/2,+y+1/2,-z|
|{-4^-_00z|(0.5,0.0,0.5)}|  -y+1/2,+x,-z+1/2|
+------------------------+------------------+
..................


**********************
space group: 87 {'Hall': ' -I 4', 'HM': 'I 4/m'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z
..................
+------------------------+----------------------+
|          Seitz         |         Jones        |
+------------------------+----------------------+
|     {1|(0.0,0.0,0.0)}  |       +x,+y,+z       |
| {4^+_00z|(0.0,0.0,0.0)}|       -y,+x,+z       |
|   {2_00z|(0.0,0.0,0.0)}|       -x,-y,+z       |
| {4^-_00z|(0.0,0.0,0.0)}|       +y,-x,+z       |
|     {-1|(0.0,0.0,0.0)} |       -x,-y,-z       |
|{-4^+_00z|(0.0,0.0,0.0)}|       +y,-x,-z       |
|   {m_xy0|(0.0,0.0,0.0)}|       +x,+y,-z       |
```

```
| {-4^-_00z|(0.0,0.0,0.0)} |        -y,+x,-z        |
|    {1|(0.5,0.5,0.5)}     | +x+1/2,+y+1/2,+z+1/2  |
| {4^+_00z|(0.5,0.5,0.5)}  | -y+1/2,+x+1/2,+z+1/2  |
|  {2_00z|(0.5,0.5,0.5)}   | -x+1/2,-y+1/2,+z+1/2  |
| {4^-_00z|(0.5,0.5,0.5)}  | +y+1/2,-x+1/2,+z+1/2  |
|   {-1|(0.5,0.5,0.5)}     | -x+1/2,-y+1/2,-z+1/2  |
| {-4^+_00z|(0.5,0.5,0.5)} | +y+1/2,-x+1/2,-z+1/2  |
|  {m_xy0|(0.5,0.5,0.5)}   | +x+1/2,+y+1/2,-z+1/2  |
| {-4^-_00z|(0.5,0.5,0.5)} | -y+1/2,+x+1/2,-z+1/2  |
+--------------------------+-----------------------+
.................

*********************
space group: 88:1 {'Hall': ' I 4bw -1bw', 'HM': 'I 41/a:1'}
Crystal system: Tetragonal
Setting: 1
+x,+y,+z
-y,+x+1/2,+z+1/4
-x,-y+1/2,-z+1/4
.................
+--------------------------+-----------------------+
|          Seitz           |         Jones         |
+--------------------------+-----------------------+
|     {1|(0.0,0.0,0.0)}    |        +x,+y,+z        |
| {4^+_00z|(0.0,0.5,0.25)} |    -y,+x+1/2,+z+1/4    |
|    {-1|(0.0,0.5,0.25)}   |    -x,-y+1/2,-z+1/4    |
|   {2_00z|(0.5,0.5,0.5)}  | -x+1/2,-y+1/2,+z+1/2  |
|     {1|(0.5,0.5,0.5)}    | +x+1/2,+y+1/2,+z+1/2  |
| {4^+_00z|(0.5,0.0,0.75)} |    -y+1/2,+x,+z+3/4    |
|    {-1|(0.5,0.0,0.75)}   |    -x+1/2,-y,-z+3/4    |
|   {2_00z|(0.0,0.0,0.0)}  |        -x,-y,+z        |
+--------------------------+-----------------------+
.................

*********************
space group: 88:2 {'Hall': '-I 4ad', 'HM': 'I 41/a:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
-y+3/4,+x+1/4,+z+1/4
.................
+----------------------------+-----------------------+
|           Seitz            |         Jones         |
+----------------------------+-----------------------+
|      {1|(0.0,0.0,0.0)}     |        +x,+y,+z        |
| {4^+_00z|(0.75,0.25,0.25)} |  -y+3/4,+x+1/4,+z+1/4 |
|   {2_00z|(0.5,0.0,0.5)}    |    -x+1/2,-y,+z+1/2    |
| {4^-_00z|(0.75,0.75,0.75)} | +y+3/4,-x+3/4,+z+3/4  |
|     {-1|(0.0,0.0,0.0)}     |        -x,-y,-z        |
| {-4^+_00z|(0.75,0.25,0.25)}| +y+3/4,-x+1/4,-z+1/4  |
|    {m_xy0|(0.5,0.0,0.5)}   |    +x+1/2,+y,-z+1/2    |
| {-4^-_00z|(0.75,0.75,0.75)}| -y+3/4,+x+3/4,-z+3/4  |
|     {1|(0.5,0.5,0.5)}      | +x+1/2,+y+1/2,+z+1/2  |
| {4^+_00z|(0.25,0.75,0.75)} |  -y+1/4,+x+3/4,+z+3/4 |
```

```
|     {2_00z|(0.0,0.5,0.0)}     |      −x,−y+1/2,+z      |
|   {4^−_00z|(0.25,0.25,0.25)}  | +y+1/4,−x+1/4,+z+1/4  |
|       {−1|(0.5,0.5,0.5)}      |  −x+1/2,−y+1/2,−z+1/2 |
| {−4^+_00z|(0.25,0.75,0.75)}   | +y+1/4,−x+3/4,−z+3/4  |
|     {m_xy0|(0.0,0.5,0.0)}     |      +x,+y+1/2,−z     |
| {−4^−_00z|(0.25,0.25,0.25)}   | −y+1/4,+x+1/4,−z+1/4  |
+──────────────────────────────+──────────────────────+
```

....

```
**********************
space group: 89 {'Hall': 'P 4 2', 'HM': 'P 4 2 2'}
Crystal system: Tetragonal
+x,+y,+z
−y,+x,+z
+x,−y,−z
```
....

```
+───────────────────────+──────────+
|         Seitz         |  Jones   |
+───────────────────────+──────────+
|    {1|(0.0,0.0,0.0)}   | +x,+y,+z |
| {4^+_00z|(0.0,0.0,0.0)}| −y,+x,+z |
|  {2_x00|(0.0,0.0,0.0)} | +x,−y,−z |
|  {2_00z|(0.0,0.0,0.0)} | −x,−y,+z |
|  {2_xx0|(0.0,0.0,0.0)} | +y,+x,−z |
| {4^−_00z|(0.0,0.0,0.0)}| +y,−x,+z |
|  {2_0y0|(0.0,0.0,0.0)} | −x,+y,−z |
| {2_x−x0|(0.0,0.0,0.0)} | −y,−x,−z |
+───────────────────────+──────────+
```

....

```
**********************
space group: 90 {'Hall': ' P 4ab 2ab', 'HM': 'P 42 1 2'}
Crystal system: Tetragonal
+x,+y,+z
−y+1/2,+x+1/2,+z
+x+1/2,−y+1/2,−z
```
....

```
+───────────────────────+─────────────────+
|         Seitz         |      Jones      |
+───────────────────────+─────────────────+
|    {1|(0.0,0.0,0.0)}   |     +x,+y,+z    |
| {4^+_00z|(0.5,0.5,0.0)}| −y+1/2,+x+1/2,+z|
|  {2_x00|(0.5,0.5,0.0)} | +x+1/2,−y+1/2,−z|
|  {2_00z|(0.0,0.0,0.0)} |     −x,−y,+z    |
|  {2_xx0|(0.0,0.0,0.0)} |     +y,+x,−z    |
| {4^−_00z|(0.5,0.5,0.0)}| +y+1/2,−x+1/2,+z|
|  {2_0y0|(0.5,0.5,0.0)} | −x+1/2,+y+1/2,−z|
| {2_x−x0|(0.0,0.0,0.0)} |     −y,−x,−z    |
+───────────────────────+─────────────────+
```

....

```
**********************
space group: 91 {'Hall': ' P 4w 2c', 'HM': 'P 41 2 2'}
Crystal system: Tetragonal
```

```
+x,+y,+z
−y,+x,+z+1/4
+x,−y,−z+1/2
..................
```

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.0,0.0,0.25)}	−y,+x,+z+1/4
{2_x00|(0.0,0.0,0.5)}	+x,−y,−z+1/2
{2_00z|(0.0,0.0,0.5)}	−x,−y,+z+1/2
{2_xx0|(0.0,0.0,0.75)}	+y,+x,−z+3/4
{4^−_00z|(0.0,0.0,0.75)}	+y,−x,+z+3/4
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z
{2_x−x0|(0.0,0.0,0.25)}	−y,−x,−z+1/4

```
..................

**********************
space group: 92 {'Hall': 'P 4abw 2nw', 'HM': 'P 41 21 2'}
Crystal system: Tetragonal
+x,+y,+z
−y+1/2,+x+1/2,+z+1/4
+x+1/2,−y+1/2,−z+3/4
..................
```

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.5,0.5,0.25)}	−y+1/2,+x+1/2,+z+1/4
{2_x00|(0.5,0.5,0.75)}	+x+1/2,−y+1/2,−z+3/4
{2_00z|(0.0,0.0,0.5)}	−x,−y,+z+1/2
{2_xx0|(0.0,0.0,0.0)}	+y,+x,−z
{4^−_00z|(0.5,0.5,0.75)}	+y+1/2,−x+1/2,+z+3/4
{2_0y0|(0.5,0.5,0.25)}	−x+1/2,+y+1/2,−z+1/4
{2_x−x0|(0.0,0.0,0.5)}	−y,−x,−z+1/2

```
..................

**********************
space group: 93 {'Hall': ' P 4c 2', 'HM': 'P 42 2 2'}
Crystal system: Tetragonal
+x,+y,+z
−y,+x,+z+1/2
+x,−y,−z
..................
```

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.0,0.0,0.5)}	−y,+x,+z+1/2
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{2_xx0|(0.0,0.0,0.5)}	+y,+x,−z+1/2

```
| {4^-_00z|(0.0,0.0,0.5)} |  +y,-x,+z+1/2  |
|  {2_0y0|(0.0,0.0,0.0)}  |    -x,+y,-z    |
| {2_x-x0|(0.0,0.0,0.5)}  |  -y,-x,-z+1/2  |
+------------------------+---------------+
```
....

```
**********************
space group: 94 {'Hall': 'P 4n 2n', 'HM': 'P 42 21 2'}
Crystal system: Tetragonal
+x,+y,+z
-y+1/2,+x+1/2,+z+1/2
+x+1/2,-y+1/2,-z+1/2
```
....

```
+------------------------+--------------------+
|         Seitz          |       Jones        |
+------------------------+--------------------+
|    {1|(0.0,0.0,0.0)}   |      +x,+y,+z       |
| {4^+_00z|(0.5,0.5,0.5)}| -y+1/2,+x+1/2,+z+1/2|
|  {2_x00|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,-z+1/2|
|  {2_00z|(0.0,0.0,0.0)} |      -x,-y,+z       |
|  {2_xx0|(0.0,0.0,0.0)} |      +y,+x,-z       |
| {4^-_00z|(0.5,0.5,0.5)}| +y+1/2,-x+1/2,+z+1/2|
|  {2_0y0|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,-z+1/2|
|  {2_x-x0|(0.0,0.0,0.0)}|      -y,-x,-z       |
+------------------------+--------------------+
```
....

```
**********************
space group: 95 {'Hall': ' P 4cw 2c', 'HM': 'P 43 2 2'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z+3/4
+x,-y,-z+1/2
```
....

```
+------------------------+--------------+
|         Seitz          |    Jones     |
+------------------------+--------------+
|    {1|(0.0,0.0,0.0)}   |   +x,+y,+z   |
| {4^+_00z|(0.0,0.0,0.75)}|  -y,+x,+z+3/4 |
|  {2_x00|(0.0,0.0,0.5)} |  +x,-y,-z+1/2 |
|  {2_00z|(0.0,0.0,0.5)} |  -x,-y,+z+1/2 |
|  {2_xx0|(0.0,0.0,0.25)}|  +y,+x,-z+1/4 |
| {4^-_00z|(0.0,0.0,0.25)}|  +y,-x,+z+1/4 |
|  {2_0y0|(0.0,0.0,0.0)} |   -x,+y,-z   |
|  {2_x-x0|(0.0,0.0,0.75)}|  -y,-x,-z+3/4 |
+------------------------+--------------+
```
....

```
**********************
space group: 96 {'Hall': 'P 4nw 2abw', 'HM': 'P 43 21 2'}
Crystal system: Tetragonal
+x,+y,+z
-y+1/2,+x+1/2,+z+3/4
+x+1/2,-y+1/2,-z+1/4
```

....
```
+----------------------------+----------------------------+
|           Seitz            |           Jones            |
+----------------------------+----------------------------+
|       {1|(0.0,0.0,0.0)}    |          +x,+y,+z           |
|  {4^+_00z|(0.5,0.5,0.75)}  |    −y+1/2,+x+1/2,+z+3/4     |
|   {2_x00|(0.5,0.5,0.25)}   |    +x+1/2,−y+1/2,−z+1/4     |
|    {2_00z|(0.0,0.0,0.5)}   |          −x,−y,+z+1/2       |
|    {2_xx0|(0.0,0.0,0.0)}   |          +y,+x,−z           |
|  {4^-_00z|(0.5,0.5,0.25)}  |    +y+1/2,−x+1/2,+z+1/4     |
|   {2_0y0|(0.5,0.5,0.75)}   |    −x+1/2,+y+1/2,−z+3/4     |
|   {2_x−x0|(0.0,0.0,0.5)}   |          −y,−x,−z+1/2       |
+----------------------------+----------------------------+
```
....

```
***********************
space group: 97 {'Hall': 'I 4 2', 'HM': 'I 4 2 2'}
Crystal system: Tetragonal
+x,+y,+z
−y,+x,+z
+x,−y,−z
```
....
```
+----------------------------+----------------------------+
|           Seitz            |           Jones            |
+----------------------------+----------------------------+
|       {1|(0.0,0.0,0.0)}    |          +x,+y,+z           |
|   {4^+_00z|(0.0,0.0,0.0)}  |          −y,+x,+z           |
|   {2_x00|(0.0,0.0,0.0)}    |          +x,−y,−z           |
|   {2_00z|(0.0,0.0,0.0)}    |          −x,−y,+z           |
|   {2_xx0|(0.0,0.0,0.0)}    |          +y,+x,−z           |
|  {4^-_00z|(0.0,0.0,0.0)}   |          +y,−x,+z           |
|   {2_0y0|(0.0,0.0,0.0)}    |          −x,+y,−z           |
|   {2_x−x0|(0.0,0.0,0.0)}   |          −y,−x,−z           |
|       {1|(0.5,0.5,0.5)}    |    +x+1/2,+y+1/2,+z+1/2     |
|   {4^+_00z|(0.5,0.5,0.5)}  |    −y+1/2,+x+1/2,+z+1/2     |
|   {2_x00|(0.5,0.5,0.5)}    |    +x+1/2,−y+1/2,−z+1/2     |
|   {2_00z|(0.5,0.5,0.5)}    |    −x+1/2,−y+1/2,+z+1/2     |
|   {2_xx0|(0.5,0.5,0.5)}    |    +y+1/2,+x+1/2,−z+1/2     |
|  {4^-_00z|(0.5,0.5,0.5)}   |    +y+1/2,−x+1/2,+z+1/2     |
|   {2_0y0|(0.5,0.5,0.5)}    |    −x+1/2,+y+1/2,−z+1/2     |
|   {2_x−x0|(0.5,0.5,0.5)}   |    −y+1/2,−x+1/2,−z+1/2     |
+----------------------------+----------------------------+
```
....

```
***********************
space group: 98 {'Hall': ' I 4bw 2bw', 'HM': 'I 41 2 2'}
Crystal system: Tetragonal
+x,+y,+z
−y,+x+1/2,+z+1/4
+x,−y+1/2,−z+1/4
```
....
```
+----------------------------+----------------------------+
|           Seitz            |           Jones            |
+----------------------------+----------------------------+
```

```
|      {1|(0.0,0.0,0.0)}    |       +x,+y,+z       |
|  {4^+_00z|(0.0,0.5,0.25)} |    −y,+x+1/2,+z+1/4   |
|   {2_x00|(0.0,0.5,0.25)}  |    +x,−y+1/2,−z+1/4   |
|   {2_00z|(0.5,0.5,0.5)}   |  −x+1/2,−y+1/2,+z+1/2 |
|   {2_xx0|(0.5,0.5,0.5)}   |  +y+1/2,+x+1/2,−z+1/2 |
|  {4^−_00z|(0.5,0.0,0.75)} |    +y+1/2,−x,+z+3/4   |
|   {2_0y0|(0.5,0.0,0.75)}  |    −x+1/2,+y,−z+3/4   |
|   {2_x−x0|(0.0,0.0,0.0)}  |        −y,−x,−z       |
|      {1|(0.5,0.5,0.5)}    |  +x+1/2,+y+1/2,+z+1/2 |
|  {4^+_00z|(0.5,0.0,0.75)} |    −y+1/2,+x,+z+3/4   |
|   {2_x00|(0.5,0.0,0.75)}  |    +x+1/2,−y,−z+3/4   |
|   {2_00z|(0.0,0.0,0.0)}   |        −x,−y,+z       |
|   {2_xx0|(0.0,0.0,0.0)}   |        +y,+x,−z       |
|  {4^−_00z|(0.0,0.5,0.25)} |    +y,−x+1/2,+z+1/4   |
|   {2_0y0|(0.0,0.5,0.25)}  |    −x,+y+1/2,−z+1/4   |
|   {2_x−x0|(0.5,0.5,0.5)}  |  −y+1/2,−x+1/2,−z+1/2 |
+--------------------------+---------------------+
```
....

****
space group: 99 {'Hall': 'P 4 −2', 'HM': 'P 4 m m'}
Crystal system: Tetragonal
+x,+y,+z
−y,+x,+z
−x,+y,+z
....

```
+----------------------+----------+
|        Seitz         |  Jones   |
+----------------------+----------+
|     {1|(0.0,0.0,0.0)}    | +x,+y,+z |
|  {4^+_00z|(0.0,0.0,0.0)} | −y,+x,+z |
|   {m_0yz|(0.0,0.0,0.0)}  | −x,+y,+z |
|   {2_00z|(0.0,0.0,0.0)}  | −x,−y,+z |
|  {m_x−xz|(0.0,0.0,0.0)}  | −y,−x,+z |
|  {4^−_00z|(0.0,0.0,0.0)} | +y,−x,+z |
|   {m_x0z|(0.0,0.0,0.0)}  | +x,−y,+z |
|   {m_xxz|(0.0,0.0,0.0)}  | +y,+x,+z |
+----------------------+----------+
```
....

****
space group: 100 {'Hall': 'P 4 −2ab', 'HM': 'P 4 b m'}
Crystal system: Tetragonal
+x,+y,+z
−y,+x,+z
−x+1/2,+y+1/2,+z
....

```
+----------------------+-----------------+
|        Seitz         |      Jones      |
+----------------------+-----------------+
|     {1|(0.0,0.0,0.0)}    |     +x,+y,+z     |
|  {4^+_00z|(0.0,0.0,0.0)} |     −y,+x,+z     |
|   {m_0yz|(0.5,0.5,0.0)}  | −x+1/2,+y+1/2,+z |
|   {2_00z|(0.0,0.0,0.0)}  |     −x,−y,+z     |
```

```
|  {m_x-xz|(0.5,0.5,0.0)} | -y+1/2,-x+1/2,+z |
| {4^-_00z|(0.0,0.0,0.0)} |     +y,-x,+z     |
|   {m_x0z|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,+z |
|   {m_xxz|(0.5,0.5,0.0)} | +y+1/2,+x+1/2,+z |
+-------------------------+------------------+
```
....

```
***********************
space group: 101 {'Hall': ' P 4c -2c', 'HM': 'P 42 c m'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z+1/2
-x,+y,+z+1/2
```
....
```
+-------------------------+--------------+
|          Seitz          |    Jones     |
+-------------------------+--------------+
|      {1|(0.0,0.0,0.0)}  |   +x,+y,+z   |
| {4^+_00z|(0.0,0.0,0.5)} | -y,+x,+z+1/2 |
|   {m_0yz|(0.0,0.0,0.5)} | -x,+y,+z+1/2 |
|   {2_00z|(0.0,0.0,0.0)} |   -x,-y,+z   |
|  {m_x-xz|(0.0,0.0,0.0)} |   -y,-x,+z   |
| {4^-_00z|(0.0,0.0,0.5)} | +y,-x,+z+1/2 |
|   {m_x0z|(0.0,0.0,0.5)} | +x,-y,+z+1/2 |
|   {m_xxz|(0.0,0.0,0.0)} |   +y,+x,+z   |
+-------------------------+--------------+
```
....

```
***********************
space group: 102 {'Hall': ' P 4n -2n', 'HM': 'P 42 n m'}
Crystal system: Tetragonal
+x,+y,+z
-y+1/2,+x+1/2,+z+1/2
-x+1/2,+y+1/2,+z+1/2
```
....
```
+-------------------------+----------------------+
|          Seitz          |        Jones         |
+-------------------------+----------------------+
|      {1|(0.0,0.0,0.0)}  |       +x,+y,+z       |
| {4^+_00z|(0.5,0.5,0.5)} | -y+1/2,+x+1/2,+z+1/2 |
|   {m_0yz|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,+z+1/2 |
|   {2_00z|(0.0,0.0,0.0)} |       -x,-y,+z       |
|  {m_x-xz|(0.0,0.0,0.0)} |       -y,-x,+z       |
| {4^-_00z|(0.5,0.5,0.5)} | +y+1/2,-x+1/2,+z+1/2 |
|   {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
|   {m_xxz|(0.0,0.0,0.0)} |       +y,+x,+z       |
+-------------------------+----------------------+
```
....

```
***********************
space group: 103 {'Hall': 'P 4 -2c', 'HM': 'P 4 c c'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z
```

-x,+y,+z+1/2

....

```
+----------------------+--------------+
|         Seitz        |     Jones    |
+----------------------+--------------+
|     {1|(0.0,0.0,0.0)}        |    +x,+y,+z   |
|  {4^+_00z|(0.0,0.0,0.0)} |    -y,+x,+z   |
|    {m_0yz|(0.0,0.0,0.5)} |  -x,+y,+z+1/2 |
|    {2_00z|(0.0,0.0,0.0)} |    -x,-y,+z   |
|   {m_x-xz|(0.0,0.0,0.5)} |  -y,-x,+z+1/2 |
|  {4^-_00z|(0.0,0.0,0.0)} |    +y,-x,+z   |
|    {m_x0z|(0.0,0.0,0.5)} |  +x,-y,+z+1/2 |
|    {m_xxz|(0.0,0.0,0.5)} |  +y,+x,+z+1/2 |
+----------------------+--------------+
```

....

****
space group: 104 {'Hall': 'P 4 -2n', 'HM': 'P 4 n c'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z
-x+1/2,+y+1/2,+z+1/2

....

```
+----------------------+--------------------+
|         Seitz        |        Jones       |
+----------------------+--------------------+
|     {1|(0.0,0.0,0.0)}        |      +x,+y,+z       |
|  {4^+_00z|(0.0,0.0,0.0)} |      -y,+x,+z       |
|    {m_0yz|(0.5,0.5,0.5)} |  -x+1/2,+y+1/2,+z+1/2 |
|    {2_00z|(0.0,0.0,0.0)} |      -x,-y,+z       |
|   {m_x-xz|(0.5,0.5,0.5)} |  -y+1/2,-x+1/2,+z+1/2 |
|  {4^-_00z|(0.0,0.0,0.0)} |      +y,-x,+z       |
|    {m_x0z|(0.5,0.5,0.5)} |  +x+1/2,-y+1/2,+z+1/2 |
|    {m_xxz|(0.5,0.5,0.5)} |  +y+1/2,+x+1/2,+z+1/2 |
+----------------------+--------------------+
```

....

****
space group: 105 {'Hall': ' P 4c -2', 'HM': 'P 42 m c'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z+1/2
-x,+y,+z

....

```
+----------------------+--------------+
|         Seitz        |     Jones    |
+----------------------+--------------+
|     {1|(0.0,0.0,0.0)}        |    +x,+y,+z   |
|  {4^+_00z|(0.0,0.0,0.5)} |  -y,+x,+z+1/2 |
|    {m_0yz|(0.0,0.0,0.0)} |    -x,+y,+z   |
|    {2_00z|(0.0,0.0,0.0)} |    -x,-y,+z   |
|   {m_x-xz|(0.0,0.0,0.5)} |  -y,-x,+z+1/2 |
|  {4^-_00z|(0.0,0.0,0.5)} |  +y,-x,+z+1/2 |
|    {m_x0z|(0.0,0.0,0.0)} |    +x,-y,+z   |
```

```
|   {m_xxz|(0.0,0.0,0.5)}   | +y,+x,+z+1/2 |
+-----------------------+-------------+

.................

*********************
space group: 106 {'Hall': ' P 4c -2ab', 'HM': 'P 42 b c'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z+1/2
-x+1/2,+y+1/2,+z

.................
+-----------------------+---------------------+
|         Seitz         |        Jones        |
+-----------------------+---------------------+
|     {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {4^+_00z|(0.0,0.0,0.5)} |    -y,+x,+z+1/2     |
|   {m_0yz|(0.5,0.5,0.0)} |   -x+1/2,+y+1/2,+z   |
|   {2_00z|(0.0,0.0,0.0)} |      -x,-y,+z        |
|  {m_x-xz|(0.5,0.5,0.5)} | -y+1/2,-x+1/2,+z+1/2 |
| {4^-_00z|(0.0,0.0,0.5)} |     +y,-x,+z+1/2    |
|   {m_x0z|(0.5,0.5,0.0)} |   +x+1/2,-y+1/2,+z   |
|   {m_xxz|(0.5,0.5,0.5)} | +y+1/2,+x+1/2,+z+1/2 |
+-----------------------+---------------------+

.................

*********************
space group: 107 {'Hall': 'I 4 -2', 'HM': 'I 4 m m'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z
-x,+y,+z

.................
+-----------------------+---------------------+
|         Seitz         |        Jones        |
+-----------------------+---------------------+
|     {1|(0.0,0.0,0.0)} |      +x,+y,+z        |
| {4^+_00z|(0.0,0.0,0.0)} |      -y,+x,+z        |
|   {m_0yz|(0.0,0.0,0.0)} |      -x,+y,+z        |
|   {2_00z|(0.0,0.0,0.0)} |      -x,-y,+z        |
|  {m_x-xz|(0.0,0.0,0.0)} |      -y,-x,+z        |
| {4^-_00z|(0.0,0.0,0.0)} |      +y,-x,+z        |
|   {m_x0z|(0.0,0.0,0.0)} |      +x,-y,+z        |
|   {m_xxz|(0.0,0.0,0.0)} |      +y,+x,+z        |
|     {1|(0.5,0.5,0.5)} | +x+1/2,+y+1/2,+z+1/2 |
| {4^+_00z|(0.5,0.5,0.5)} | -y+1/2,+x+1/2,+z+1/2 |
|   {m_0yz|(0.5,0.5,0.5)} | -x+1/2,+y+1/2,+z+1/2 |
|   {2_00z|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,+z+1/2 |
|  {m_x-xz|(0.5,0.5,0.5)} | -y+1/2,-x+1/2,+z+1/2 |
| {4^-_00z|(0.5,0.5,0.5)} | +y+1/2,-x+1/2,+z+1/2 |
|   {m_x0z|(0.5,0.5,0.5)} | +x+1/2,-y+1/2,+z+1/2 |
|   {m_xxz|(0.5,0.5,0.5)} | +y+1/2,+x+1/2,+z+1/2 |
+-----------------------+---------------------+

.................
```

```
**********************
space group: 108 {'Hall': 'I 4 -2c', 'HM': 'I 4 c m'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z
-x,+y,+z+1/2
..................
+----------------------+---------------------+
|         Seitz        |        Jones        |
+----------------------+---------------------+
|     {1|(0.0,0.0,0.0)}     |       +x,+y,+z       |
| {4^+_00z|(0.0,0.0,0.0)} |       -y,+x,+z       |
|  {m_0yz|(0.0,0.0,0.5)}  |     -x,+y,+z+1/2     |
|  {2_00z|(0.0,0.0,0.0)}  |       -x,-y,+z       |
| {m_x-xz|(0.0,0.0,0.5)}  |     -y,-x,+z+1/2     |
| {4^-_00z|(0.0,0.0,0.0)} |       +y,-x,+z       |
|  {m_x0z|(0.0,0.0,0.5)}  |     +x,-y,+z+1/2     |
|  {m_xxz|(0.0,0.0,0.5)}  |     +y,+x,+z+1/2     |
|     {1|(0.5,0.5,0.5)}     |  +x+1/2,+y+1/2,+z+1/2  |
| {4^+_00z|(0.5,0.5,0.5)} |  -y+1/2,+x+1/2,+z+1/2  |
|  {m_0yz|(0.5,0.5,0.0)}  |   -x+1/2,+y+1/2,+z   |
|  {2_00z|(0.5,0.5,0.5)}  |  -x+1/2,-y+1/2,+z+1/2  |
| {m_x-xz|(0.5,0.5,0.0)}  |   -y+1/2,-x+1/2,+z   |
| {4^-_00z|(0.5,0.5,0.5)} |  +y+1/2,-x+1/2,+z+1/2  |
|  {m_x0z|(0.5,0.5,0.0)}  |   +x+1/2,-y+1/2,+z   |
|  {m_xxz|(0.5,0.5,0.0)}  |   +y+1/2,+x+1/2,+z   |
+----------------------+---------------------+
..................


**********************
space group: 109 {'Hall': ' I 4bw -2', 'HM': 'I 41 m d'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x+1/2,+z+1/4
-x,+y,+z
..................
+----------------------+---------------------+
|         Seitz        |        Jones        |
+----------------------+---------------------+
|     {1|(0.0,0.0,0.0)}     |       +x,+y,+z       |
| {4^+_00z|(0.0,0.5,0.25)} |    -y,+x+1/2,+z+1/4    |
|  {m_0yz|(0.0,0.0,0.0)}  |       -x,+y,+z       |
|  {2_00z|(0.5,0.5,0.5)}  |  -x+1/2,-y+1/2,+z+1/2  |
| {m_x-xz|(0.0,0.5,0.25)} |    -y,-x+1/2,+z+1/4    |
| {4^-_00z|(0.5,0.0,0.75)} |    +y+1/2,-x,+z+3/4    |
|  {m_x0z|(0.5,0.5,0.5)}  |  +x+1/2,-y+1/2,+z+1/2  |
|  {m_xxz|(0.5,0.0,0.75)}  |    +y+1/2,+x,+z+3/4    |
|     {1|(0.5,0.5,0.5)}     |  +x+1/2,+y+1/2,+z+1/2  |
| {4^+_00z|(0.5,0.0,0.75)} |    -y+1/2,+x,+z+3/4    |
|  {m_0yz|(0.5,0.5,0.5)}  |  -x+1/2,+y+1/2,+z+1/2  |
|  {2_00z|(0.0,0.0,0.0)}  |       -x,-y,+z       |
| {m_x-xz|(0.5,0.0,0.75)} |    -y+1/2,-x,+z+3/4    |
| {4^-_00z|(0.0,0.5,0.25)} |    +y,-x+1/2,+z+1/4    |
|  {m_x0z|(0.0,0.0,0.0)}  |       +x,-y,+z       |
```

```
|    {m_xxz|(0.0,0.5,0.25)}    |    +y,+x+1/2,+z+1/4    |
+------------------------+---------------------+
```

....


```
**********************
space group: 110 {'Hall': ' I 4bw -2c', 'HM': 'I 41 c d'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x+1/2,+z+1/4
-x,+y,+z+1/2
```

....

```
+------------------------+---------------------+
|         Seitz          |        Jones        |
+------------------------+---------------------+
|     {1|(0.0,0.0,0.0)}       |       +x,+y,+z       |
|  {4^+_00z|(0.0,0.5,0.25)}   |    -y,+x+1/2,+z+1/4    |
|    {m_0yz|(0.0,0.0,0.5)}    |      -x,+y,+z+1/2     |
|    {2_00z|(0.5,0.5,0.5)}    |  -x+1/2,-y+1/2,+z+1/2  |
|  {m_x-xz|(0.0,0.5,0.75)}    |    -y,-x+1/2,+z+3/4    |
|  {4^-_00z|(0.5,0.0,0.75)}   |    +y+1/2,-x,+z+3/4    |
|    {m_x0z|(0.5,0.5,0.0)}    |    +x+1/2,-y+1/2,+z    |
|   {m_xxz|(0.5,0.0,0.25)}    |    +y+1/2,+x,+z+1/4    |
|     {1|(0.5,0.5,0.5)}       |  +x+1/2,+y+1/2,+z+1/2  |
|  {4^+_00z|(0.5,0.0,0.75)}   |    -y+1/2,+x,+z+3/4    |
|    {m_0yz|(0.5,0.5,0.0)}    |    -x+1/2,+y+1/2,+z    |
|    {2_00z|(0.0,0.0,0.0)}    |        -x,-y,+z       |
|  {m_x-xz|(0.5,0.0,0.25)}    |    -y+1/2,-x,+z+1/4    |
|  {4^-_00z|(0.0,0.5,0.25)}   |    +y,-x+1/2,+z+1/4    |
|    {m_x0z|(0.0,0.0,0.5)}    |      +x,-y,+z+1/2     |
|   {m_xxz|(0.0,0.5,0.75)}    |    +y,+x+1/2,+z+3/4    |
+------------------------+---------------------+
```

....


```
**********************
space group: 111 {'Hall': ' P -4 2', 'HM': 'P -4 2 m'}
Crystal system: Tetragonal
+x,+y,+z
+y,-x,-z
+x,-y,-z
```

....

```
+------------------------+----------+
|         Seitz          |   Jones  |
+------------------------+----------+
|     {1|(0.0,0.0,0.0)}       | +x,+y,+z |
|  {-4^+_00z|(0.0,0.0,0.0)}   | +y,-x,-z |
|    {2_x00|(0.0,0.0,0.0)}    | +x,-y,-z |
|    {2_00z|(0.0,0.0,0.0)}    | -x,-y,+z |
|   {m_x-xz|(0.0,0.0,0.0)}    | -y,-x,+z |
|  {-4^-_00z|(0.0,0.0,0.0)}   | -y,+x,-z |
|    {2_0y0|(0.0,0.0,0.0)}    | -x,+y,-z |
|    {m_xxz|(0.0,0.0,0.0)}    | +y,+x,+z |
+------------------------+----------+
```

....

```
***********************
space group: 112 {'Hall': ' P -4 2c', 'HM': 'P -4 2 c'}
Crystal system: Tetragonal
+x,+y,+z
+y,-x,-z
+x,-y,-z+1/2
...................
+-------------------------+---------------+
|          Seitz          |     Jones     |
+-------------------------+---------------+
|     {1|(0.0,0.0,0.0)}   |    +x,+y,+z   |
| {-4^+_00z|(0.0,0.0,0.0)}|    +y,-x,-z   |
|   {2_x00|(0.0,0.0,0.5)} |  +x,-y,-z+1/2 |
|   {2_00z|(0.0,0.0,0.0)} |    -x,-y,+z   |
|  {m_x-xz|(0.0,0.0,0.5)} |  -y,-x,+z+1/2 |
| {-4^-_00z|(0.0,0.0,0.0)}|    -y,+x,-z   |
|   {2_0y0|(0.0,0.0,0.5)} |  -x,+y,-z+1/2 |
|   {m_xxz|(0.0,0.0,0.5)} |  +y,+x,+z+1/2 |
+-------------------------+---------------+
...................


***********************
space group: 113 {'Hall': 'P -4 2ab', 'HM': 'P -4 21 m'}
Crystal system: Tetragonal
+x,+y,+z
+y,-x,-z
+x+1/2,-y+1/2,-z
...................
+-------------------------+-----------------+
|          Seitz          |      Jones      |
+-------------------------+-----------------+
|     {1|(0.0,0.0,0.0)}   |     +x,+y,+z    |
| {-4^+_00z|(0.0,0.0,0.0)}|     +y,-x,-z    |
|   {2_x00|(0.5,0.5,0.0)} | +x+1/2,-y+1/2,-z|
|   {2_00z|(0.0,0.0,0.0)} |     -x,-y,+z    |
|  {m_x-xz|(0.5,0.5,0.0)} | -y+1/2,-x+1/2,+z|
| {-4^-_00z|(0.0,0.0,0.0)}|     -y,+x,-z    |
|   {2_0y0|(0.5,0.5,0.0)} | -x+1/2,+y+1/2,-z|
|   {m_xxz|(0.5,0.5,0.0)} | +y+1/2,+x+1/2,+z|
+-------------------------+-----------------+
...................


***********************
space group: 114 {'Hall': 'P -4 2n', 'HM': 'P -4 21 c'}
Crystal system: Tetragonal
+x,+y,+z
+y,-x,-z
+x+1/2,-y+1/2,-z+1/2
...................
+-------------------------+---------------------+
|          Seitz          |        Jones        |
+-------------------------+---------------------+
|     {1|(0.0,0.0,0.0)}   |       +x,+y,+z      |
| {-4^+_00z|(0.0,0.0,0.0)}|       +y,-x,-z      |
```

```
|   {2_x00|(0.5,0.5,0.5)}   | +x+1/2,−y+1/2,−z+1/2 |
|   {2_00z|(0.0,0.0,0.0)}   |       −x,−y,+z        |
|  {m_x-xz|(0.5,0.5,0.5)}   | −y+1/2,−x+1/2,+z+1/2 |
| {−4^−_00z|(0.0,0.0,0.0)}  |       −y,+x,−z        |
|   {2_0y0|(0.5,0.5,0.5)}   | −x+1/2,+y+1/2,−z+1/2 |
|   {m_xxz|(0.5,0.5,0.5)}   | +y+1/2,+x+1/2,+z+1/2 |
+───────────────────────────+──────────────────────+
..................

**********************
space group: 115 {'Hall': ' P −4 −2', 'HM': 'P −4 m 2'}
Crystal system: Tetragonal
+x,+y,+z
+y,−x,−z
−x,+y,+z
..................
+───────────────────────────+──────────+
|          Seitz            |  Jones   |
+───────────────────────────+──────────+
|     {1|(0.0,0.0,0.0)}     | +x,+y,+z |
| {−4^+_00z|(0.0,0.0,0.0)}  | +y,−x,−z |
|   {m_0yz|(0.0,0.0,0.0)}   | −x,+y,+z |
|   {2_00z|(0.0,0.0,0.0)}   | −x,−y,+z |
|   {2_xx0|(0.0,0.0,0.0)}   | +y,+x,−z |
| {−4^−_00z|(0.0,0.0,0.0)}  | −y,+x,−z |
|   {m_x0z|(0.0,0.0,0.0)}   | +x,−y,+z |
|   {2_x-x0|(0.0,0.0,0.0)}  | −y,−x,−z |
+───────────────────────────+──────────+
..................

**********************
space group: 116 {'Hall': ' P −4 −2c', 'HM': 'P −4 c 2'}
Crystal system: Tetragonal
+x,+y,+z
+y,−x,−z
−x,+y,+z+1/2
..................
+───────────────────────────+─────────────+
|          Seitz            |    Jones    |
+───────────────────────────+─────────────+
|     {1|(0.0,0.0,0.0)}     |   +x,+y,+z   |
| {−4^+_00z|(0.0,0.0,0.0)}  |   +y,−x,−z   |
|   {m_0yz|(0.0,0.0,0.5)}   | −x,+y,+z+1/2 |
|   {2_00z|(0.0,0.0,0.0)}   |   −x,−y,+z   |
|   {2_xx0|(0.0,0.0,0.5)}   | +y,+x,−z+1/2 |
| {−4^−_00z|(0.0,0.0,0.0)}  |   −y,+x,−z   |
|   {m_x0z|(0.0,0.0,0.5)}   | +x,−y,+z+1/2 |
|   {2_x-x0|(0.0,0.0,0.5)}  | −y,−x,−z+1/2 |
+───────────────────────────+─────────────+
..................

**********************
space group: 117 {'Hall': ' P −4 −2ab', 'HM': 'P −4 b 2'}
Crystal system: Tetragonal
```

```
+x,+y,+z
+y,−x,−z
−x+1/2,+y+1/2,+z
...................
+------------------------+------------------+
|         Seitz          |      Jones       |
+------------------------+------------------+
|      {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
| {−4^+_00z|(0.0,0.0,0.0)} |     +y,−x,−z     |
|   {m_0yz|(0.5,0.5,0.0)} |  −x+1/2,+y+1/2,+z |
|   {2_00z|(0.0,0.0,0.0)} |     −x,−y,+z     |
|   {2_xx0|(0.5,0.5,0.0)} |  +y+1/2,+x+1/2,−z |
| {−4^−_00z|(0.0,0.0,0.0)} |     −y,+x,−z     |
|   {m_x0z|(0.5,0.5,0.0)} |  +x+1/2,−y+1/2,+z |
|   {2_x−x0|(0.5,0.5,0.0)} |  −y+1/2,−x+1/2,−z |
+------------------------+------------------+
...................

**********************
space group: 118 {'Hall': ' P −4 −2n', 'HM': 'P −4 n 2'}
Crystal system: Tetragonal
+x,+y,+z
+y,−x,−z
−x+1/2,+y+1/2,+z+1/2
...................
+------------------------+--------------------+
|         Seitz          |       Jones        |
+------------------------+--------------------+
|      {1|(0.0,0.0,0.0)} |      +x,+y,+z      |
| {−4^+_00z|(0.0,0.0,0.0)} |      +y,−x,−z      |
|   {m_0yz|(0.5,0.5,0.5)} |  −x+1/2,+y+1/2,+z+1/2 |
|   {2_00z|(0.0,0.0,0.0)} |      −x,−y,+z      |
|   {2_xx0|(0.5,0.5,0.5)} |  +y+1/2,+x+1/2,−z+1/2 |
| {−4^−_00z|(0.0,0.0,0.0)} |      −y,+x,−z      |
|   {m_x0z|(0.5,0.5,0.5)} |  +x+1/2,−y+1/2,+z+1/2 |
|   {2_x−x0|(0.5,0.5,0.5)} |  −y+1/2,−x+1/2,−z+1/2 |
+------------------------+--------------------+
...................

**********************
space group: 119 {'Hall': ' I −4 −2', 'HM': 'I −4 m 2'}
Crystal system: Tetragonal
+x,+y,+z
+y,−x,−z
−x,+y,+z
...................
+------------------------+--------------------+
|         Seitz          |       Jones        |
+------------------------+--------------------+
|      {1|(0.0,0.0,0.0)} |      +x,+y,+z      |
| {−4^+_00z|(0.0,0.0,0.0)} |      +y,−x,−z      |
|   {m_0yz|(0.0,0.0,0.0)} |      −x,+y,+z      |
|   {2_00z|(0.0,0.0,0.0)} |      −x,−y,+z      |
|   {2_xx0|(0.0,0.0,0.0)} |      +y,+x,−z      |
```

```
| {-4^-_00z|(0.0,0.0,0.0)} |        -y,+x,-z         |
|  {m_x0z|(0.0,0.0,0.0)}   |        +x,-y,+z         |
|  {2_x-x0|(0.0,0.0,0.0)}  |        -y,-x,-z         |
|    {1|(0.5,0.5,0.5)}     |  +x+1/2,+y+1/2,+z+1/2   |
| {-4^+_00z|(0.5,0.5,0.5)} |  +y+1/2,-x+1/2,-z+1/2   |
|  {m_0yz|(0.5,0.5,0.5)}   |  -x+1/2,+y+1/2,+z+1/2   |
|  {2_00z|(0.5,0.5,0.5)}   |  -x+1/2,-y+1/2,+z+1/2   |
|  {2_xx0|(0.5,0.5,0.5)}   |  +y+1/2,+x+1/2,-z+1/2   |
| {-4^-_00z|(0.5,0.5,0.5)} |  -y+1/2,+x+1/2,-z+1/2   |
|  {m_x0z|(0.5,0.5,0.5)}   |  +x+1/2,-y+1/2,+z+1/2   |
|  {2_x-x0|(0.5,0.5,0.5)}  |  -y+1/2,-x+1/2,-z+1/2   |
+--------------------------+------------------------+
..................

**********************
space group: 120 {'Hall': ' I -4 -2c', 'HM': 'I -4 c 2'}
Crystal system: Tetragonal
+x,+y,+z
+y,-x,-z
-x,+y,+z+1/2
..................
+--------------------------+------------------------+
|          Seitz           |         Jones          |
+--------------------------+------------------------+
|    {1|(0.0,0.0,0.0)}     |        +x,+y,+z         |
| {-4^+_00z|(0.0,0.0,0.0)} |        +y,-x,-z         |
|  {m_0yz|(0.0,0.0,0.5)}   |       -x,+y,+z+1/2      |
|  {2_00z|(0.0,0.0,0.0)}   |        -x,-y,+z         |
|  {2_xx0|(0.0,0.0,0.5)}   |       +y,+x,-z+1/2      |
| {-4^-_00z|(0.0,0.0,0.0)} |        -y,+x,-z         |
|  {m_x0z|(0.0,0.0,0.5)}   |       +x,-y,+z+1/2      |
|  {2_x-x0|(0.0,0.0,0.5)}  |       -y,-x,-z+1/2      |
|    {1|(0.5,0.5,0.5)}     |  +x+1/2,+y+1/2,+z+1/2   |
| {-4^+_00z|(0.5,0.5,0.5)} |  +y+1/2,-x+1/2,-z+1/2   |
|  {m_0yz|(0.5,0.5,0.0)}   |    -x+1/2,+y+1/2,+z     |
|  {2_00z|(0.5,0.5,0.5)}   |  -x+1/2,-y+1/2,+z+1/2   |
|  {2_xx0|(0.5,0.5,0.0)}   |    +y+1/2,+x+1/2,-z     |
| {-4^-_00z|(0.5,0.5,0.5)} |  -y+1/2,+x+1/2,-z+1/2   |
|  {m_x0z|(0.5,0.5,0.0)}   |    +x+1/2,-y+1/2,+z     |
|  {2_x-x0|(0.5,0.5,0.0)}  |    -y+1/2,-x+1/2,-z     |
+--------------------------+------------------------+
..................

**********************
space group: 121 {'Hall': ' I -4 2', 'HM': 'I -4 2 m'}
Crystal system: Tetragonal
+x,+y,+z
+y,-x,-z
+x,-y,-z
..................
+--------------------------+------------------------+
|          Seitz           |         Jones          |
+--------------------------+------------------------+
|    {1|(0.0,0.0,0.0)}     |        +x,+y,+z         |
```

```
| {-4^+_00z|(0.0,0.0,0.0)} |        +y,-x,-z          |
|  {2_x00|(0.0,0.0,0.0)}   |        +x,-y,-z          |
|  {2_00z|(0.0,0.0,0.0)}   |        -x,-y,+z          |
|  {m_x-xz|(0.0,0.0,0.0)}  |        -y,-x,+z          |
| {-4^-_00z|(0.0,0.0,0.0)} |        -y,+x,-z          |
|  {2_0y0|(0.0,0.0,0.0)}   |        -x,+y,-z          |
|  {m_xxz|(0.0,0.0,0.0)}   |        +y,+x,+z          |
|    {1|(0.5,0.5,0.5)}     | +x+1/2,+y+1/2,+z+1/2     |
| {-4^+_00z|(0.5,0.5,0.5)} | +y+1/2,-x+1/2,-z+1/2     |
|  {2_x00|(0.5,0.5,0.5)}   | +x+1/2,-y+1/2,-z+1/2     |
|  {2_00z|(0.5,0.5,0.5)}   | -x+1/2,-y+1/2,+z+1/2     |
|  {m_x-xz|(0.5,0.5,0.5)}  | -y+1/2,-x+1/2,+z+1/2     |
| {-4^-_00z|(0.5,0.5,0.5)} | -y+1/2,+x+1/2,-z+1/2     |
|  {2_0y0|(0.5,0.5,0.5)}   | -x+1/2,+y+1/2,-z+1/2     |
|  {m_xxz|(0.5,0.5,0.5)}   | +y+1/2,+x+1/2,+z+1/2     |
+--------------------------+-------------------------+
```
....

```
**********************
space group: 122 {'Hall': ' I -4 2bw', 'HM': 'I -4 2 d'}
Crystal system: Tetragonal
+x,+y,+z
+y,-x,-z
+x,-y+1/2,-z+1/4
```
....

```
+--------------------------+-------------------------+
|          Seitz           |          Jones          |
+--------------------------+-------------------------+
|    {1|(0.0,0.0,0.0)}     |        +x,+y,+z          |
| {-4^+_00z|(0.0,0.0,0.0)} |        +y,-x,-z          |
|  {2_x00|(0.0,0.5,0.25)}  |     +x,-y+1/2,-z+1/4     |
|  {2_00z|(0.0,0.0,0.0)}   |        -x,-y,+z          |
|  {m_x-xz|(0.5,0.0,0.75)} |    -y+1/2,-x,+z+3/4      |
| {-4^-_00z|(0.0,0.0,0.0)} |        -y,+x,-z          |
|  {2_0y0|(0.0,0.5,0.25)}  |     -x,+y+1/2,-z+1/4     |
|  {m_xxz|(0.5,0.0,0.75)}  |    +y+1/2,+x,+z+3/4      |
|    {1|(0.5,0.5,0.5)}     | +x+1/2,+y+1/2,+z+1/2     |
| {-4^+_00z|(0.5,0.5,0.5)} | +y+1/2,-x+1/2,-z+1/2     |
|  {2_x00|(0.5,0.0,0.75)}  |    +x+1/2,-y,-z+3/4      |
|  {2_00z|(0.5,0.5,0.5)}   | -x+1/2,-y+1/2,+z+1/2     |
|  {m_x-xz|(0.0,0.5,0.25)} |    -y,-x+1/2,+z+1/4      |
| {-4^-_00z|(0.5,0.5,0.5)} | -y+1/2,+x+1/2,-z+1/2     |
|  {2_0y0|(0.5,0.0,0.75)}  |    -x+1/2,+y,-z+3/4      |
|  {m_xxz|(0.0,0.5,0.25)}  |    +y,+x+1/2,+z+1/4      |
+--------------------------+-------------------------+
```
....

```
**********************
space group: 123 {'Hall': ' -P 4 2', 'HM': 'P 4/m m m'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z
+x,-y,-z
```
....

```
+------------------------+----------+
|          Seitz         |   Jones  |
+------------------------+----------+
|     {1|(0.0,0.0,0.0)}  | +x,+y,+z |
|  {4^+_00z|(0.0,0.0,0.0)}| −y,+x,+z |
|   {2_x00|(0.0,0.0,0.0)}| +x,−y,−z |
|   {2_00z|(0.0,0.0,0.0)}| −x,−y,+z |
|   {2_xx0|(0.0,0.0,0.0)}| +y,+x,−z |
|  {4^−_00z|(0.0,0.0,0.0)}| +y,−x,+z |
|   {2_0y0|(0.0,0.0,0.0)}| −x,+y,−z |
|  {2_x−x0|(0.0,0.0,0.0)}| −y,−x,−z |
|     {−1|(0.0,0.0,0.0)}  | −x,−y,−z |
| {−4^+_00z|(0.0,0.0,0.0)}| +y,−x,−z |
|   {m_0yz|(0.0,0.0,0.0)}| −x,+y,+z |
|   {m_xy0|(0.0,0.0,0.0)}| +x,+y,−z |
|  {m_x−xz|(0.0,0.0,0.0)}| −y,−x,+z |
| {−4^−_00z|(0.0,0.0,0.0)}| −y,+x,−z |
|   {m_x0z|(0.0,0.0,0.0)}| +x,−y,+z |
|   {m_xxz|(0.0,0.0,0.0)}| +y,+x,+z |
+------------------------+----------+
```
....

****
space group: 124 {'Hall': ' −P 4 2c', 'HM': 'P 4/m c c'}
Crystal system: Tetragonal
+x,+y,+z
−y,+x,+z
+x,−y,−z+1/2
....

```
+------------------------+--------------+
|          Seitz         |     Jones    |
+------------------------+--------------+
|     {1|(0.0,0.0,0.0)}  |   +x,+y,+z   |
|  {4^+_00z|(0.0,0.0,0.0)}|   −y,+x,+z   |
|   {2_x00|(0.0,0.0,0.5)}|  +x,−y,−z+1/2 |
|   {2_00z|(0.0,0.0,0.0)}|   −x,−y,+z   |
|   {2_xx0|(0.0,0.0,0.5)}|  +y,+x,−z+1/2 |
|  {4^−_00z|(0.0,0.0,0.0)}|   +y,−x,+z   |
|   {2_0y0|(0.0,0.0,0.5)}|  −x,+y,−z+1/2 |
|  {2_x−x0|(0.0,0.0,0.5)}|  −y,−x,−z+1/2 |
|     {−1|(0.0,0.0,0.0)}  |   −x,−y,−z   |
| {−4^+_00z|(0.0,0.0,0.0)}|   +y,−x,−z   |
|   {m_0yz|(0.0,0.0,0.5)}|  −x,+y,+z+1/2 |
|   {m_xy0|(0.0,0.0,0.0)}|   +x,+y,−z   |
|  {m_x−xz|(0.0,0.0,0.5)}|  −y,−x,+z+1/2 |
| {−4^−_00z|(0.0,0.0,0.0)}|   −y,+x,−z   |
|   {m_x0z|(0.0,0.0,0.5)}|  +x,−y,+z+1/2 |
|   {m_xxz|(0.0,0.0,0.5)}|  +y,+x,+z+1/2 |
+------------------------+--------------+
```
....

****
space group: 125:1 {'Hall': 'P 4 2 −1ab', 'HM': 'P 4/n b m:1'}
Crystal system: Tetragonal

Setting: 1
+x,+y,+z
−y,+x,+z
+x,−y,−z
−x+1/2,−y+1/2,−z
....

+------------------------+------------------+
| Seitz | Jones |
+------------------------+------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z	(0.0,0.0,0.0)}	−y,+x,+z
{2_x00	(0.0,0.0,0.0)}	+x,−y,−z
{−1	(0.5,0.5,0.0)}	−x+1/2,−y+1/2,−z
{2_00z	(0.0,0.0,0.0)}	−x,−y,+z
{2_xx0	(0.0,0.0,0.0)}	+y,+x,−z
{−4^+_00z	(0.5,0.5,0.0)}	+y+1/2,−x+1/2,−z
{4^−_00z	(0.0,0.0,0.0)}	+y,−x,+z
+------------------------+------------------+
....

****
space group: 125:2 {'Hall': ' −P 4a 2b', 'HM': 'P 4/n b m:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
−y+1/2,+x,+z
+x,−y+1/2,−z
....

+------------------------+------------------+
| Seitz | Jones |
+------------------------+------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z	(0.5,0.0,0.0)}	−y+1/2,+x,+z
{2_x00	(0.0,0.5,0.0)}	+x,−y+1/2,−z
{2_00z	(0.5,0.5,0.0)}	−x+1/2,−y+1/2,+z
{2_xx0	(0.0,0.0,0.0)}	+y,+x,−z
{4^−_00z	(0.0,0.5,0.0)}	+y,−x+1/2,+z
{2_0y0	(0.5,0.0,0.0)}	−x+1/2,+y,−z
{2_x−x0	(0.5,0.5,0.0)}	−y+1/2,−x+1/2,−z
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{−4^+_00z	(0.5,0.0,0.0)}	+y+1/2,−x,−z
{m_0yz	(0.0,0.5,0.0)}	−x,+y+1/2,+z
{m_xy0	(0.5,0.5,0.0)}	+x+1/2,+y+1/2,−z
{m_x−xz	(0.0,0.0,0.0)}	−y,−x,+z
{−4^−_00z	(0.0,0.5,0.0)}	−y,+x+1/2,−z
{m_x0z	(0.5,0.0,0.0)}	+x+1/2,−y,+z
{m_xxz	(0.5,0.5,0.0)}	+y+1/2,+x+1/2,+z
+------------------------+------------------+
....

****
space group: 126:1 {'Hall': 'P 4 2 −1n', 'HM': 'P 4/n n c:1'}
Crystal system: Tetragonal
Setting: 1

```
+x,+y,+z
−y,+x,+z
+x,−y,−z
−x+1/2,−y+1/2,−z+1/2
..................
+-----------------------+----------------------+
|         Seitz         |        Jones         |
+-----------------------+----------------------+
|     {1|(0.0,0.0,0.0)} |      +x,+y,+z         |
|  {4^+_00z|(0.0,0.0,0.0)} |     −y,+x,+z       |
|   {2_x00|(0.0,0.0,0.0)} |      +x,−y,−z        |
|     {−1|(0.5,0.5,0.5)} |   −x+1/2,−y+1/2,−z+1/2 |
|   {2_00z|(0.0,0.0,0.0)} |      −x,−y,+z        |
|   {2_xx0|(0.0,0.0,0.0)} |      +y,+x,−z        |
|  {−4^+_00z|(0.5,0.5,0.5)} |  +y+1/2,−x+1/2,−z+1/2 |
|   {4^−_00z|(0.0,0.0,0.0)} |     +y,−x,+z        |
+-----------------------+----------------------+

..................


*********************
space group: 126:2 {'Hall': ' −P 4a 2bc', 'HM': 'P 4/n n c:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
−y+1/2,+x,+z
+x,−y+1/2,−z+1/2
..................
+-----------------------+----------------------+
|         Seitz         |        Jones         |
+-----------------------+----------------------+
|     {1|(0.0,0.0,0.0)} |      +x,+y,+z         |
|  {4^+_00z|(0.5,0.0,0.0)} |    −y+1/2,+x,+z     |
|   {2_x00|(0.0,0.5,0.5)} |    +x,−y+1/2,−z+1/2  |
|   {2_00z|(0.5,0.5,0.0)} |    −x+1/2,−y+1/2,+z  |
|   {2_xx0|(0.0,0.0,0.5)} |    +y,+x,−z+1/2      |
|  {4^−_00z|(0.0,0.5,0.0)} |    +y,−x+1/2,+z     |
|   {2_0y0|(0.5,0.0,0.5)} |    −x+1/2,+y,−z+1/2  |
|  {2_x−x0|(0.5,0.5,0.5)} |  −y+1/2,−x+1/2,−z+1/2 |
|     {−1|(0.0,0.0,0.0)} |      −x,−y,−z        |
| {−4^+_00z|(0.5,0.0,0.0)} |    +y+1/2,−x,−z    |
|   {m_0yz|(0.0,0.5,0.5)} |    −x,+y+1/2,+z+1/2  |
|   {m_xy0|(0.5,0.5,0.0)} |    +x+1/2,+y+1/2,−z  |
|  {m_x−xz|(0.0,0.0,0.5)} |    −y,−x,+z+1/2      |
| {−4^−_00z|(0.0,0.5,0.0)} |    −y,+x+1/2,−z     |
|   {m_x0z|(0.5,0.0,0.5)} |    +x+1/2,−y,+z+1/2  |
|   {m_xxz|(0.5,0.5,0.5)} |  +y+1/2,+x+1/2,+z+1/2 |
+-----------------------+----------------------+
..................


*********************
space group: 127 {'Hall': ' −P 4 2ab', 'HM': 'P 4/m b m'}
Crystal system: Tetragonal
+x,+y,+z
−y,+x,+z
```

+x+1/2,−y+1/2,−z

....

```
+---------------------------+-------------------+
|           Seitz           |       Jones       |
+---------------------------+-------------------+
|       {1|(0.0,0.0,0.0)}   |     +x,+y,+z      |
|  {4^+_00z|(0.0,0.0,0.0)}  |     −y,+x,+z      |
|   {2_x00|(0.5,0.5,0.0)}   |  +x+1/2,−y+1/2,−z |
|   {2_00z|(0.0,0.0,0.0)}   |     −x,−y,+z      |
|   {2_xx0|(0.5,0.5,0.0)}   |  +y+1/2,+x+1/2,−z |
|  {4^−_00z|(0.0,0.0,0.0)}  |     +y,−x,+z      |
|   {2_0y0|(0.5,0.5,0.0)}   |  −x+1/2,+y+1/2,−z |
|   {2_x−0|(0.5,0.5,0.0)}   |  −y+1/2,−x+1/2,−z |
|      {−1|(0.0,0.0,0.0)}   |     −x,−y,−z      |
| {−4^+_00z|(0.0,0.0,0.0)}  |     +y,−x,−z      |
|   {m_0yz|(0.5,0.5,0.0)}   |  −x+1/2,+y+1/2,+z |
|   {m_xy0|(0.0,0.0,0.0)}   |     +x,+y,−z      |
|   {m_x−xz|(0.5,0.5,0.0)}  |  −y+1/2,−x+1/2,+z |
| {−4^−_00z|(0.0,0.0,0.0)}  |     −y,+x,−z      |
|   {m_x0z|(0.5,0.5,0.0)}   |  +x+1/2,−y+1/2,+z |
|   {m_xxz|(0.5,0.5,0.0)}   |  +y+1/2,+x+1/2,+z |
+---------------------------+-------------------+
```

....

****
space group: 128 {'Hall': ' −P 4 2n', 'HM': 'P 4/m n c'}
Crystal system: Tetragonal
+x,+y,+z
−y,+x,+z
+x+1/2,−y+1/2,−z+1/2

....

```
+---------------------------+----------------------+
|           Seitz           |        Jones         |
+---------------------------+----------------------+
|       {1|(0.0,0.0,0.0)}   |      +x,+y,+z        |
|  {4^+_00z|(0.0,0.0,0.0)}  |      −y,+x,+z        |
|   {2_x00|(0.5,0.5,0.5)}   |  +x+1/2,−y+1/2,−z+1/2 |
|   {2_00z|(0.0,0.0,0.0)}   |      −x,−y,+z        |
|   {2_xx0|(0.5,0.5,0.5)}   |  +y+1/2,+x+1/2,−z+1/2 |
|  {4^−_00z|(0.0,0.0,0.0)}  |      +y,−x,+z        |
|   {2_0y0|(0.5,0.5,0.5)}   |  −x+1/2,+y+1/2,−z+1/2 |
|   {2_x−0|(0.5,0.5,0.5)}   |  −y+1/2,−x+1/2,−z+1/2 |
|      {−1|(0.0,0.0,0.0)}   |      −x,−y,−z        |
| {−4^+_00z|(0.0,0.0,0.0)}  |      +y,−x,−z        |
|   {m_0yz|(0.5,0.5,0.5)}   |  −x+1/2,+y+1/2,+z+1/2 |
|   {m_xy0|(0.0,0.0,0.0)}   |      +x,+y,−z        |
|   {m_x−xz|(0.5,0.5,0.5)}  |  −y+1/2,−x+1/2,+z+1/2 |
| {−4^−_00z|(0.0,0.0,0.0)}  |      −y,+x,−z        |
|   {m_x0z|(0.5,0.5,0.5)}   |  +x+1/2,−y+1/2,+z+1/2 |
|   {m_xxz|(0.5,0.5,0.5)}   |  +y+1/2,+x+1/2,+z+1/2 |
+---------------------------+----------------------+
```

....

****

space group: 129:1 {'Hall': 'P 4ab 2ab -1ab', 'HM': 'P 4/n m m:1'}
Crystal system: Tetragonal
Setting: 1
+x,+y,+z
-y+1/2,+x+1/2,+z
+x+1/2,-y+1/2,-z
-x+1/2,-y+1/2,-z
....

```
+------------------------+-----------------+
|          Seitz         |      Jones      |
+------------------------+-----------------+
|     {1|(0.0,0.0,0.0)}  |    +x,+y,+z     |
| {4^+_00z|(0.5,0.5,0.0)}|  -y+1/2,+x+1/2,+z |
|  {2_x00|(0.5,0.5,0.0)} |  +x+1/2,-y+1/2,-z |
|    {-1|(0.5,0.5,0.0)}  |  -x+1/2,-y+1/2,-z |
|  {2_00z|(0.0,0.0,0.0)} |    -x,-y,+z     |
|  {2_xx0|(0.0,0.0,0.0)} |    +y,+x,-z     |
| {-4^+_00z|(0.0,0.0,0.0)}|    +y,-x,-z     |
| {4^-_00z|(0.5,0.5,0.0)}|  +y+1/2,-x+1/2,+z |
+------------------------+-----------------+
```

....

****
space group: 129:2 {'Hall': ' -P 4a 2a', 'HM': 'P 4/n m m:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
-y+1/2,+x,+z
+x+1/2,-y,-z
....

```
+------------------------+-----------------+
|          Seitz         |      Jones      |
+------------------------+-----------------+
|     {1|(0.0,0.0,0.0)}  |    +x,+y,+z     |
| {4^+_00z|(0.5,0.0,0.0)}|    -y+1/2,+x,+z |
|  {2_x00|(0.5,0.0,0.0)} |    +x+1/2,-y,-z |
|  {2_00z|(0.5,0.5,0.0)} |  -x+1/2,-y+1/2,+z |
|  {2_xx0|(0.5,0.5,0.0)} |  +y+1/2,+x+1/2,-z |
| {4^-_00z|(0.0,0.5,0.0)}|    +y,-x+1/2,+z |
|  {2_0y0|(0.0,0.5,0.0)} |    -x,+y+1/2,-z |
| {2_x-x0|(0.0,0.0,0.0)} |    -y,-x,-z     |
|    {-1|(0.0,0.0,0.0)}  |    -x,-y,-z     |
| {-4^+_00z|(0.5,0.0,0.0)}|    +y+1/2,-x,-z |
|  {m_0yz|(0.5,0.0,0.0)} |    -x+1/2,+y,+z |
|  {m_xy0|(0.5,0.5,0.0)} |  +x+1/2,+y+1/2,-z |
| {m_x-xz|(0.5,0.5,0.0)} |  -y+1/2,-x+1/2,+z |
| {-4^-_00z|(0.0,0.5,0.0)}|    -y,+x+1/2,-z |
|  {m_x0z|(0.0,0.5,0.0)} |    +x,-y+1/2,+z |
|  {m_xxz|(0.0,0.0,0.0)} |    +y,+x,+z     |
+------------------------+-----------------+
```

....

****
space group: 130:1 {'Hall': 'P 4ab 2n -1ab', 'HM': 'P 4/n c c:1'}

Crystal system: Tetragonal
Setting: 1
+x,+y,+z
−y+1/2,+x+1/2,+z
+x+1/2,−y+1/2,−z+1/2
−x+1/2,−y+1/2,−z

....

+------------------------+---------------------+
| Seitz | Jones |
+------------------------+---------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z	(0.5,0.5,0.0)}	−y+1/2,+x+1/2,+z
{2_x00	(0.5,0.5,0.5)}	+x+1/2,−y+1/2,−z+1/2
{−1	(0.5,0.5,0.0)}	−x+1/2,−y+1/2,−z
{2_00z	(0.0,0.0,0.0)}	−x,−y,+z
{2_xx0	(0.0,0.0,0.5)}	+y,+x,−z+1/2
{−4^+_00z	(0.0,0.0,0.0)}	+y,−x,−z
{4^−_00z	(0.5,0.5,0.0)}	+y+1/2,−x+1/2,+z
+------------------------+---------------------+

....

****
space group: 130:2 {'Hall': ' −P 4a 2ac', 'HM': 'P 4/n c c:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
−y+1/2,+x,+z
+x+1/2,−y,−z+1/2

....

+------------------------+---------------------+
| Seitz | Jones |
+------------------------+---------------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z	(0.5,0.0,0.0)}	−y+1/2,+x,+z
{2_x00	(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{2_00z	(0.5,0.5,0.0)}	−x+1/2,−y+1/2,+z
{2_xx0	(0.5,0.5,0.5)}	+y+1/2,+x+1/2,−z+1/2
{4^−_00z	(0.0,0.5,0.0)}	+y,−x+1/2,+z
{2_0y0	(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2
{2_x−x0	(0.0,0.0,0.5)}	−y,−x,−z+1/2
{−1	(0.0,0.0,0.0)}	−x,−y,−z
{−4^+_00z	(0.5,0.0,0.0)}	+y+1/2,−x,−z
{m_0yz	(0.5,0.0,0.5)}	−x+1/2,+y,+z+1/2
{m_xy0	(0.5,0.5,0.0)}	+x+1/2,+y+1/2,−z
{m_x−xz	(0.5,0.5,0.5)}	−y+1/2,−x+1/2,+z+1/2
{−4^−_00z	(0.0,0.5,0.0)}	−y,+x+1/2,−z
{m_x0z	(0.0,0.5,0.5)}	+x,−y+1/2,+z+1/2
{m_xxz	(0.0,0.0,0.5)}	+y,+x,+z+1/2
+------------------------+---------------------+

....

****
space group: 131 {'Hall': '−P 4c 2', 'HM': 'P 42/m m c'}
Crystal system: Tetragonal

```
+x,+y,+z
−y,+x,+z+1/2
+x,−y,−z
..................
+------------------------+-------------+
|          Seitz         |    Jones    |
+------------------------+-------------+
|     {1|(0.0,0.0,0.0)}  |  +x,+y,+z   |
| {4^+_00z|(0.0,0.0,0.5)}| −y,+x,+z+1/2 |
|  {2_x00|(0.0,0.0,0.0)} |  +x,−y,−z   |
|  {2_00z|(0.0,0.0,0.0)} |  −x,−y,+z   |
|  {2_xx0|(0.0,0.0,0.5)} | +y,+x,−z+1/2 |
| {4^-_00z|(0.0,0.0,0.5)}| +y,−x,+z+1/2 |
|  {2_0y0|(0.0,0.0,0.0)} |  −x,+y,−z   |
| {2_x-x0|(0.0,0.0,0.5)} | −y,−x,−z+1/2 |
|    {-1|(0.0,0.0,0.0)}  |  −x,−y,−z   |
| {-4^+_00z|(0.0,0.0,0.5)}| +y,−x,−z+1/2 |
|  {m_0yz|(0.0,0.0,0.0)} |  −x,+y,+z   |
|  {m_xy0|(0.0,0.0,0.0)} |  +x,+y,−z   |
| {m_x-xz|(0.0,0.0,0.5)} | −y,−x,+z+1/2 |
| {-4^-_00z|(0.0,0.0,0.5)}| −y,+x,−z+1/2 |
|  {m_x0z|(0.0,0.0,0.0)} |  +x,−y,+z   |
|  {m_xxz|(0.0,0.0,0.5)} | +y,+x,+z+1/2 |
+------------------------+-------------+
..................

*********************
space group: 132 {'Hall': '-P 4c 2c', 'HM': 'P 42/m c m'}
Crystal system: Tetragonal
+x,+y,+z
−y,+x,+z+1/2
+x,−y,−z+1/2
..................
+------------------------+-------------+
|          Seitz         |    Jones    |
+------------------------+-------------+
|     {1|(0.0,0.0,0.0)}  |  +x,+y,+z   |
| {4^+_00z|(0.0,0.0,0.5)}| −y,+x,+z+1/2 |
|  {2_x00|(0.0,0.0,0.5)} | +x,−y,−z+1/2 |
|  {2_00z|(0.0,0.0,0.0)} |  −x,−y,+z   |
|  {2_xx0|(0.0,0.0,0.0)} |  +y,+x,−z   |
| {4^-_00z|(0.0,0.0,0.5)}| +y,−x,+z+1/2 |
|  {2_0y0|(0.0,0.0,0.5)} | −x,+y,−z+1/2 |
| {2_x-x0|(0.0,0.0,0.0)} |  −y,−x,−z   |
|    {-1|(0.0,0.0,0.0)}  |  −x,−y,−z   |
| {-4^+_00z|(0.0,0.0,0.5)}| +y,−x,−z+1/2 |
|  {m_0yz|(0.0,0.0,0.5)} | −x,+y,+z+1/2 |
|  {m_xy0|(0.0,0.0,0.0)} |  +x,+y,−z   |
| {m_x-xz|(0.0,0.0,0.0)} |  −y,−x,+z   |
| {-4^-_00z|(0.0,0.0,0.5)}| −y,+x,−z+1/2 |
|  {m_x0z|(0.0,0.0,0.5)} | +x,−y,+z+1/2 |
|  {m_xxz|(0.0,0.0,0.0)} |  +y,+x,+z   |
+------------------------+-------------+
..................
```

```
**********************
space group: 133:1 {'Hall': ' P 4n 2c −1n', 'HM': 'P 42/n b c:1'}
Crystal system: Tetragonal
Setting: 1
+x,+y,+z
−y+1/2,+x+1/2,+z+1/2
+x,−y,−z+1/2
−x+1/2,−y+1/2,−z+1/2
..................
+----------------------+---------------------+
|         Seitz        |        Jones        |
+----------------------+---------------------+
|     {1|(0.0,0.0,0.0)}     |       +x,+y,+z       |
|  {4^+_00z|(0.5,0.5,0.5)}  |  −y+1/2,+x+1/2,+z+1/2 |
|   {2_x00|(0.0,0.0,0.5)}   |      +x,−y,−z+1/2     |
|     {−1|(0.5,0.5,0.5)}     |  −x+1/2,−y+1/2,−z+1/2 |
|   {2_00z|(0.0,0.0,0.0)}    |        −x,−y,+z       |
|   {2_xx0|(0.5,0.5,0.0)}    |    +y+1/2,+x+1/2,−z   |
| {−4^+_00z|(0.0,0.0,0.0)}   |        +y,−x,−z       |
|  {4^−_00z|(0.5,0.5,0.5)}   |  +y+1/2,−x+1/2,+z+1/2 |
+----------------------+---------------------+

..................

**********************
space group: 133:2 {'Hall': '−P 4ac 2b', 'HM': 'P 42/n b c:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
−y+1/2,+x,+z+1/2
+x,−y+1/2,−z
..................
+----------------------+---------------------+
|         Seitz        |        Jones        |
+----------------------+---------------------+
|     {1|(0.0,0.0,0.0)}     |       +x,+y,+z       |
|  {4^+_00z|(0.5,0.0,0.5)}  |   −y+1/2,+x,+z+1/2    |
|   {2_x00|(0.0,0.5,0.0)}   |      +x,−y+1/2,−z     |
|   {2_00z|(0.5,0.5,0.0)}   |    −x+1/2,−y+1/2,+z   |
|   {2_xx0|(0.0,0.0,0.5)}   |      +y,+x,−z+1/2     |
|  {4^−_00z|(0.0,0.5,0.5)}  |   +y,−x+1/2,+z+1/2    |
|   {2_0y0|(0.5,0.0,0.0)}   |      −x+1/2,+y,−z     |
|   {2_x−x0|(0.5,0.5,0.5)}  |  −y+1/2,−x+1/2,−z+1/2 |
|     {−1|(0.0,0.0,0.0)}     |        −x,−y,−z       |
| {−4^+_00z|(0.5,0.0,0.5)}   |   +y+1/2,−x,−z+1/2    |
|   {m_0yz|(0.0,0.5,0.0)}    |      −x,+y+1/2,+z     |
|   {m_xy0|(0.5,0.5,0.0)}    |    +x+1/2,+y+1/2,−z   |
|  {m_x−xz|(0.0,0.0,0.5)}    |      −y,−x,+z+1/2     |
| {−4^−_00z|(0.0,0.5,0.5)}   |   −y,+x+1/2,−z+1/2    |
|   {m_x0z|(0.5,0.0,0.0)}    |      +x+1/2,−y,+z     |
|   {m_xxz|(0.5,0.5,0.5)}    |  +y+1/2,+x+1/2,+z+1/2 |
+----------------------+---------------------+

..................
```

```
**********************
space group: 134:1 {'Hall': ' P 4n 2 -1n', 'HM': 'P 42/n n m:1'}
Crystal system: Tetragonal
Setting: 1
+x,+y,+z
-y+1/2,+x+1/2,+z+1/2
+x,-y,-z
-x+1/2,-y+1/2,-z+1/2
..................
+------------------------+---------------------+
|          Seitz         |         Jones       |
+------------------------+---------------------+
|      {1|(0.0,0.0,0.0)} |       +x,+y,+z       |
|  {4^+_00z|(0.5,0.5,0.5)} | -y+1/2,+x+1/2,+z+1/2 |
|   {2_x00|(0.0,0.0,0.0)} |       +x,-y,-z       |
|     {-1|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,-z+1/2 |
|   {2_00z|(0.0,0.0,0.0)} |       -x,-y,+z       |
|   {2_xx0|(0.5,0.5,0.5)} | +y+1/2,+x+1/2,-z+1/2 |
| {-4^+_00z|(0.0,0.0,0.0)} |       +y,-x,-z       |
|  {4^-_00z|(0.5,0.5,0.5)} | +y+1/2,-x+1/2,+z+1/2 |
+------------------------+---------------------+

..................

**********************
space group: 134:2 {'Hall': '-P 4ac 2bc', 'HM': 'P 42/n n m:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
-y+1/2,+x,+z+1/2
+x,-y+1/2,-z+1/2
..................
+------------------------+-----------------+
|          Seitz         |       Jones     |
+------------------------+-----------------+
|      {1|(0.0,0.0,0.0)} |     +x,+y,+z     |
|  {4^+_00z|(0.5,0.0,0.5)} |   -y+1/2,+x,+z+1/2 |
|   {2_x00|(0.0,0.5,0.5)} |  +x,-y+1/2,-z+1/2 |
|   {2_00z|(0.5,0.5,0.0)} |  -x+1/2,-y+1/2,+z |
|   {2_xx0|(0.0,0.0,0.0)} |     +y,+x,-z     |
|  {4^-_00z|(0.0,0.5,0.5)} |  +y,-x+1/2,+z+1/2 |
|   {2_0y0|(0.5,0.0,0.5)} |  -x+1/2,+y,-z+1/2 |
|  {2_x-x0|(0.5,0.5,0.0)} |  -y+1/2,-x+1/2,-z |
|      {-1|(0.0,0.0,0.0)} |     -x,-y,-z     |
| {-4^+_00z|(0.5,0.0,0.5)} |  +y+1/2,-x,-z+1/2 |
|   {m_0yz|(0.0,0.5,0.5)} |  -x,+y+1/2,+z+1/2 |
|   {m_xy0|(0.5,0.5,0.0)} |  +x+1/2,+y+1/2,-z |
|  {m_x-xz|(0.0,0.0,0.0)} |     -y,-x,+z     |
| {-4^-_00z|(0.0,0.5,0.5)} |  -y,+x+1/2,-z+1/2 |
|   {m_x0z|(0.5,0.0,0.5)} |  +x+1/2,-y,+z+1/2 |
|   {m_xxz|(0.5,0.5,0.0)} |  +y+1/2,+x+1/2,+z |
+------------------------+-----------------+

..................

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```

```
space group: 135 {'Hall': '-P 4c 2ab', 'HM': 'P 42/m b c'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z+1/2
+x+1/2,-y+1/2,-z
..................
```

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.0,0.0,0.5)}	-y,+x,+z+1/2
{2_x00|(0.5,0.5,0.0)}	+x+1/2,-y+1/2,-z
{2_00z|(0.0,0.0,0.0)}	-x,-y,+z
{2_xx0|(0.5,0.5,0.5)}	+y+1/2,+x+1/2,-z+1/2
{4^-_00z|(0.0,0.0,0.5)}	+y,-x,+z+1/2
{2_0y0|(0.5,0.5,0.0)}	-x+1/2,+y+1/2,-z
{2_x-x0|(0.5,0.5,0.5)}	-y+1/2,-x+1/2,-z+1/2
{-1|(0.0,0.0,0.0)}	-x,-y,-z
{-4^+_00z|(0.0,0.0,0.5)}	+y,-x,-z+1/2
{m_0yz|(0.5,0.5,0.0)}	-x+1/2,+y+1/2,+z
{m_xy0|(0.0,0.0,0.0)}	+x,+y,-z
{m_x-xz|(0.5,0.5,0.5)}	-y+1/2,-x+1/2,+z+1/2
{-4^-_00z|(0.0,0.0,0.5)}	-y,+x,-z+1/2
{m_x0z|(0.5,0.5,0.0)}	+x+1/2,-y+1/2,+z
{m_xxz|(0.5,0.5,0.5)}	+y+1/2,+x+1/2,+z+1/2

```
..................

**********************
space group: 136 {'Hall': '-P 4n 2n', 'HM': 'P 42/m n m'}
Crystal system: Tetragonal
+x,+y,+z
-y+1/2,+x+1/2,+z+1/2
+x+1/2,-y+1/2,-z+1/2
..................
```

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.5,0.5,0.5)}	-y+1/2,+x+1/2,+z+1/2
{2_x00|(0.5,0.5,0.5)}	+x+1/2,-y+1/2,-z+1/2
{2_00z|(0.0,0.0,0.0)}	-x,-y,+z
{2_xx0|(0.0,0.0,0.0)}	+y,+x,-z
{4^-_00z|(0.5,0.5,0.5)}	+y+1/2,-x+1/2,+z+1/2
{2_0y0|(0.5,0.5,0.5)}	-x+1/2,+y+1/2,-z+1/2
{2_x-x0|(0.0,0.0,0.0)}	-y,-x,-z
{-1|(0.0,0.0,0.0)}	-x,-y,-z
{-4^+_00z|(0.5,0.5,0.5)}	+y+1/2,-x+1/2,-z+1/2
{m_0yz|(0.5,0.5,0.5)}	-x+1/2,+y+1/2,+z+1/2
{m_xy0|(0.0,0.0,0.0)}	+x,+y,-z
{m_x-xz|(0.0,0.0,0.0)}	-y,-x,+z
{-4^-_00z|(0.5,0.5,0.5)}	-y+1/2,+x+1/2,-z+1/2
{m_x0z|(0.5,0.5,0.5)}	+x+1/2,-y+1/2,+z+1/2
{m_xxz|(0.0,0.0,0.0)}	+y,+x,+z

```
              +-----------------------+----------------------+
..................

**********************
space group: 137:1 {'Hall': ' P 4n 2n -1n', 'HM': 'P 42/n m c:1'}
Crystal system: Tetragonal
Setting: 1
+x,+y,+z
-y+1/2,+x+1/2,+z+1/2
+x+1/2,-y+1/2,-z+1/2
-x+1/2,-y+1/2,-z+1/2

..................
              +-----------------------+----------------------+
              |         Seitz         |         Jones        |
              +-----------------------+----------------------+
              |    {1|(0.0,0.0,0.0)}  |       +x,+y,+z        |
              | {4^+_00z|(0.5,0.5,0.5)}| -y+1/2,+x+1/2,+z+1/2 |
              |  {2_x00|(0.5,0.5,0.5)}| +x+1/2,-y+1/2,-z+1/2 |
              |    {-1|(0.5,0.5,0.5)} | -x+1/2,-y+1/2,-z+1/2 |
              |  {2_00z|(0.0,0.0,0.0)}|       -x,-y,+z        |
              |  {2_xx0|(0.0,0.0,0.0)}|       +y,+x,-z        |
              | {-4^+_00z|(0.0,0.0,0.0)}|     +y,-x,-z        |
              | {4^-_00z|(0.5,0.5,0.5)}| +y+1/2,-x+1/2,+z+1/2 |
              +-----------------------+----------------------+
..................

**********************
space group: 137:2 {'Hall': '-P 4ac 2a', 'HM': 'P 42/n m c:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
-y+1/2,+x,+z+1/2
+x+1/2,-y,-z

..................
              +-----------------------+----------------------+
              |         Seitz         |         Jones        |
              +-----------------------+----------------------+
              |    {1|(0.0,0.0,0.0)}  |       +x,+y,+z        |
              | {4^+_00z|(0.5,0.0,0.5)}|  -y+1/2,+x,+z+1/2    |
              |  {2_x00|(0.5,0.0,0.0)}|     +x+1/2,-y,-z      |
              |  {2_00z|(0.5,0.5,0.0)}|   -x+1/2,-y+1/2,+z    |
              |  {2_xx0|(0.5,0.5,0.5)}| +y+1/2,+x+1/2,-z+1/2 |
              | {4^-_00z|(0.0,0.5,0.5)}|  +y,-x+1/2,+z+1/2    |
              |  {2_0y0|(0.0,0.5,0.0)}|    -x,+y+1/2,-z       |
              | {2_x-x0|(0.0,0.0,0.5)}|    -y,-x,-z+1/2       |
              |    {-1|(0.0,0.0,0.0)} |      -x,-y,-z         |
              | {-4^+_00z|(0.5,0.0,0.5)}| +y+1/2,-x,-z+1/2   |
              |  {m_0yz|(0.5,0.0,0.0)}|    -x+1/2,+y,+z       |
              |  {m_xy0|(0.5,0.5,0.0)}|  +x+1/2,+y+1/2,-z     |
              | {m_x-xz|(0.5,0.5,0.5)}| -y+1/2,-x+1/2,+z+1/2 |
              | {-4^-_00z|(0.0,0.5,0.5)}|  -y,+x+1/2,-z+1/2  |
              |  {m_x0z|(0.0,0.5,0.0)}|    +x,-y+1/2,+z       |
              |  {m_xxz|(0.0,0.0,0.5)}|    +y,+x,+z+1/2       |
              +-----------------------+----------------------+
```

....

****
space group: 138:1 {'Hall': ' P 4n 2ab −1n', 'HM': 'P 42/n c m:1'}
Crystal system: Tetragonal
Setting: 1
+x,+y,+z
−y+1/2,+x+1/2,+z+1/2
+x+1/2,−y+1/2,−z
−x+1/2,−y+1/2,−z+1/2
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.5,0.5,0.5)}	−y+1/2,+x+1/2,+z+1/2
{2_x00|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{−1|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,−z+1/2
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{2_xx0|(0.0,0.0,0.5)}	+y,+x,−z+1/2
{−4^+_00z|(0.0,0.0,0.0)}	+y,−x,−z
{4^−_00z|(0.5,0.5,0.5)}	+y+1/2,−x+1/2,+z+1/2

....

****
space group: 138:2 {'Hall': '−P 4ac 2ac', 'HM': 'P 42/n c m:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
−y+1/2,+x,+z+1/2
+x+1/2,−y,−z+1/2
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.5,0.0,0.5)}	−y+1/2,+x,+z+1/2
{2_x00|(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{2_00z|(0.5,0.5,0.0)}	−x+1/2,−y+1/2,+z
{2_xx0|(0.5,0.5,0.0)}	+y+1/2,+x+1/2,−z
{4^−_00z|(0.0,0.5,0.5)}	+y,−x+1/2,+z+1/2
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2
{2_x−x0|(0.0,0.0,0.0)}	−y,−x,−z
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{−4^+_00z|(0.5,0.0,0.5)}	+y+1/2,−x,−z+1/2
{m_0yz|(0.5,0.0,0.5)}	−x+1/2,+y,+z+1/2
{m_xy0|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,−z
{m_x−xz|(0.5,0.5,0.0)}	−y+1/2,−x+1/2,+z
{−4^−_00z|(0.0,0.5,0.5)}	−y,+x+1/2,−z+1/2
{m_x0z|(0.0,0.5,0.5)}	+x,−y+1/2,+z+1/2
{m_xxz|(0.0,0.0,0.0)}	+y,+x,+z

....

```
**********************
space group: 139 {'Hall': ' -I 4 2', 'HM': 'I 4/m m m'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z
+x,-y,-z
..................
+------------------------+----------------------+
|          Seitz         |         Jones        |
+------------------------+----------------------+
|      {1|(0.0,0.0,0.0)} |        +x,+y,+z       |
|  {4^+_00z|(0.0,0.0,0.0)} |       -y,+x,+z       |
|   {2_x00|(0.0,0.0,0.0)} |        +x,-y,-z       |
|   {2_00z|(0.0,0.0,0.0)} |        -x,-y,+z       |
|   {2_xx0|(0.0,0.0,0.0)} |        +y,+x,-z       |
|  {4^-_00z|(0.0,0.0,0.0)} |       +y,-x,+z       |
|   {2_0y0|(0.0,0.0,0.0)} |        -x,+y,-z       |
|  {2_x-x0|(0.0,0.0,0.0)} |        -y,-x,-z       |
|     {-1|(0.0,0.0,0.0)} |        -x,-y,-z       |
| {-4^+_00z|(0.0,0.0,0.0)} |       +y,-x,-z       |
|  {m_0yz|(0.0,0.0,0.0)} |        -x,+y,+z       |
|  {m_xy0|(0.0,0.0,0.0)} |        +x,+y,-z       |
| {m_x-xz|(0.0,0.0,0.0)} |        -y,-x,+z       |
| {-4^-_00z|(0.0,0.0,0.0)} |       -y,+x,-z       |
|  {m_x0z|(0.0,0.0,0.0)} |        +x,-y,+z       |
|  {m_xxz|(0.0,0.0,0.0)} |        +y,+x,+z       |
|      {1|(0.5,0.5,0.5)} |   +x+1/2,+y+1/2,+z+1/2 |
|  {4^+_00z|(0.5,0.5,0.5)} |  -y+1/2,+x+1/2,+z+1/2 |
|   {2_x00|(0.5,0.5,0.5)} |  +x+1/2,-y+1/2,-z+1/2 |
|   {2_00z|(0.5,0.5,0.5)} |  -x+1/2,-y+1/2,+z+1/2 |
|   {2_xx0|(0.5,0.5,0.5)} |  +y+1/2,+x+1/2,-z+1/2 |
|  {4^-_00z|(0.5,0.5,0.5)} |  +y+1/2,-x+1/2,+z+1/2 |
|   {2_0y0|(0.5,0.5,0.5)} |  -x+1/2,+y+1/2,-z+1/2 |
|  {2_x-x0|(0.5,0.5,0.5)} |  -y+1/2,-x+1/2,-z+1/2 |
|     {-1|(0.5,0.5,0.5)} |  -x+1/2,-y+1/2,-z+1/2 |
| {-4^+_00z|(0.5,0.5,0.5)} |  +y+1/2,-x+1/2,-z+1/2 |
|  {m_0yz|(0.5,0.5,0.5)} |  -x+1/2,+y+1/2,+z+1/2 |
|  {m_xy0|(0.5,0.5,0.5)} |  +x+1/2,+y+1/2,-z+1/2 |
| {m_x-xz|(0.5,0.5,0.5)} |  -y+1/2,-x+1/2,+z+1/2 |
| {-4^-_00z|(0.5,0.5,0.5)} |  -y+1/2,+x+1/2,-z+1/2 |
|  {m_x0z|(0.5,0.5,0.5)} |  +x+1/2,-y+1/2,+z+1/2 |
|  {m_xxz|(0.5,0.5,0.5)} |  +y+1/2,+x+1/2,+z+1/2 |
+------------------------+----------------------+
..................


**********************
space group: 140 {'Hall': ' -I 4 2c', 'HM': 'I 4/m c m'}
Crystal system: Tetragonal
+x,+y,+z
-y,+x,+z
+x,-y,-z+1/2
..................
+------------------------+----------------------+
```

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.0,0.0,0.0)}	−y,+x,+z
{2_x00|(0.0,0.0,0.5)}	+x,−y,−z+1/2
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{2_xx0|(0.0,0.0,0.5)}	+y,+x,−z+1/2
{4^−_00z|(0.0,0.0,0.0)}	+y,−x,+z
{2_0y0|(0.0,0.0,0.5)}	−x,+y,−z+1/2
{2_x−x0|(0.0,0.0,0.5)}	−y,−x,−z+1/2
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{−4^+_00z|(0.0,0.0,0.0)}	+y,−x,−z
{m_0yz|(0.0,0.0,0.5)}	−x,+y,+z+1/2
{m_xy0|(0.0,0.0,0.0)}	+x,+y,−z
{m_x−xz|(0.0,0.0,0.5)}	−y,−x,+z+1/2
{−4^−_00z|(0.0,0.0,0.0)}	−y,+x,−z
{m_x0z|(0.0,0.0,0.5)}	+x,−y,+z+1/2
{m_xxz|(0.0,0.0,0.5)}	+y,+x,+z+1/2
{1|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2
{4^+_00z|(0.5,0.5,0.5)}	−y+1/2,+x+1/2,+z+1/2
{2_x00|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{2_00z|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,+z+1/2
{2_xx0|(0.5,0.5,0.0)}	+y+1/2,+x+1/2,−z
{4^−_00z|(0.5,0.5,0.5)}	+y+1/2,−x+1/2,+z+1/2
{2_0y0|(0.5,0.5,0.0)}	−x+1/2,+y+1/2,−z
{2_x−x0|(0.5,0.5,0.0)}	−y+1/2,−x+1/2,−z
{−1|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,−z+1/2
{−4^+_00z|(0.5,0.5,0.5)}	+y+1/2,−x+1/2,−z+1/2
{m_0yz|(0.5,0.5,0.0)}	−x+1/2,+y+1/2,+z
{m_xy0|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,−z+1/2
{m_x−xz|(0.5,0.5,0.0)}	−y+1/2,−x+1/2,+z
{−4^−_00z|(0.5,0.5,0.5)}	−y+1/2,+x+1/2,−z+1/2
{m_x0z|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,+z
{m_xxz|(0.5,0.5,0.0)}	+y+1/2,+x+1/2,+z

....

```
*********************
space group: 141:1 {'Hall': ' I 4bw 2bw -1bw', 'HM': 'I 41/a m d:1'}
Crystal system: Tetragonal
Setting: 1
+x,+y,+z
-y,+x+1/2,+z+1/4
+x,-y+1/2,-z+1/4
-x,-y+1/2,-z+1/4
```

....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.0,0.5,0.25)}	−y,+x+1/2,+z+1/4
{2_x00|(0.0,0.5,0.25)}	+x,−y+1/2,−z+1/4
{−1|(0.0,0.5,0.25)}	−x,−y+1/2,−z+1/4
{2_00z|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,+z+1/2

```
|    {2_xx0|(0.5,0.5,0.5)}    |  +y+1/2,+x+1/2,−z+1/2  |
|  {−4^+_00z|(0.5,0.5,0.5)}   |  +y+1/2,−x+1/2,−z+1/2  |
|  {4^−_00z|(0.5,0.0,0.75)}   |     +y+1/2,−x,+z+3/4   |
|      {1|(0.5,0.5,0.5)}      |  +x+1/2,+y+1/2,+z+1/2  |
|  {4^+_00z|(0.5,0.0,0.75)}   |     −y+1/2,+x,+z+3/4   |
|   {2_x00|(0.5,0.0,0.75)}    |    +x+1/2,−y,−z+3/4    |
|    {−1|(0.5,0.0,0.75)}      |    −x+1/2,−y,−z+3/4    |
|   {2_00z|(0.0,0.0,0.0)}     |        −x,−y,+z        |
|   {2_xx0|(0.0,0.0,0.0)}     |        +y,+x,−z        |
|  {−4^+_00z|(0.0,0.0,0.0)}   |        +y,−x,−z        |
|   {4^−_00z|(0.0,0.5,0.25)}  |    +y,−x+1/2,+z+1/4    |
+────────────────────────────+────────────────────────+
```

....

```
**********************
space group: 141:2 {'Hall': '−I 4bd 2', 'HM': 'I 41/a m d:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
−y+1/4,+x+3/4,+z+1/4
+x,−y,−z
```

....

```
+────────────────────────────+────────────────────────+
|            Seitz           |          Jones         |
+────────────────────────────+────────────────────────+
|       {1|(0.0,0.0,0.0)}     |        +x,+y,+z        |
|  {4^+_00z|(0.25,0.75,0.25)} |   −y+1/4,+x+3/4,+z+1/4 |
|     {2_x00|(0.0,0.0,0.0)}   |        +x,−y,−z        |
|     {2_00z|(0.5,0.0,0.5)}   |     −x+1/2,−y,+z+1/2   |
|   {2_xx0|(0.25,0.75,0.25)}  |   +y+1/4,+x+3/4,−z+1/4 |
|  {4^−_00z|(0.25,0.25,0.75)} |   +y+1/4,−x+1/4,+z+3/4 |
|     {2_0y0|(0.5,0.0,0.5)}   |     −x+1/2,+y,−z+1/2   |
|  {2_x−x0|(0.25,0.25,0.75)}  |   −y+1/4,−x+1/4,−z+3/4 |
|      {−1|(0.0,0.0,0.0)}     |        −x,−y,−z        |
| {−4^+_00z|(0.25,0.75,0.25)} |   +y+1/4,−x+3/4,−z+1/4 |
|     {m_0yz|(0.0,0.0,0.0)}   |        −x,+y,+z        |
|    {m_xy0|(0.5,0.0,0.5)}    |     +x+1/2,+y,−z+1/2   |
|  {m_x−xz|(0.25,0.75,0.25)}  |   −y+1/4,−x+3/4,+z+1/4 |
| {−4^−_00z|(0.25,0.25,0.75)} |   −y+1/4,+x+1/4,−z+3/4 |
|    {m_x0z|(0.5,0.0,0.5)}    |     +x+1/2,−y,+z+1/2   |
|  {m_xxz|(0.25,0.25,0.75)}   |   +y+1/4,+x+1/4,+z+3/4 |
|      {1|(0.5,0.5,0.5)}      |  +x+1/2,+y+1/2,+z+1/2  |
|  {4^+_00z|(0.75,0.25,0.75)} |   −y+3/4,+x+1/4,+z+3/4 |
|     {2_x00|(0.5,0.5,0.5)}   |   +x+1/2,−y+1/2,−z+1/2 |
|     {2_00z|(0.0,0.5,0.0)}   |       −x,−y+1/2,+z     |
|   {2_xx0|(0.75,0.25,0.75)}  |   +y+3/4,+x+1/4,−z+3/4 |
|  {4^−_00z|(0.75,0.75,0.25)} |   +y+3/4,−x+3/4,+z+1/4 |
|     {2_0y0|(0.0,0.5,0.0)}   |       −x,+y+1/2,−z     |
|  {2_x−x0|(0.75,0.75,0.25)}  |   −y+3/4,−x+3/4,−z+1/4 |
|      {−1|(0.5,0.5,0.5)}     |   −x+1/2,−y+1/2,−z+1/2 |
| {−4^+_00z|(0.75,0.25,0.75)} |   +y+3/4,−x+1/4,−z+3/4 |
|     {m_0yz|(0.5,0.5,0.5)}   |   −x+1/2,+y+1/2,+z+1/2 |
|    {m_xy0|(0.0,0.5,0.0)}    |       +x,+y+1/2,−z     |
|  {m_x−xz|(0.75,0.25,0.75)}  |   −y+3/4,−x+1/4,+z+3/4 |
```

```
| {-4^-_00z|(0.75,0.75,0.25)} | -y+3/4,+x+3/4,-z+1/4 |
|     {m_x0z|(0.0,0.5,0.0)}   |     +x,-y+1/2,+z      |
|   {m_xxz|(0.75,0.75,0.25)}  | +y+3/4,+x+3/4,+z+1/4  |
+----------------------------+----------------------+
```

....

```
**********************
space group: 142:1 {'Hall': ' I 4bw 2aw -1bw', 'HM': 'I 41/a c d:1'}
Crystal system: Tetragonal
Setting: 1
+x,+y,+z
-y,+x+1/2,+z+1/4
+x+1/2,-y,-z+1/4
-x,-y+1/2,-z+1/4
```

....

```
+----------------------------+----------------------+
|            Seitz           |        Jones         |
+----------------------------+----------------------+
|       {1|(0.0,0.0,0.0)}    |       +x,+y,+z        |
|  {4^+_00z|(0.0,0.5,0.25)}  |    -y,+x+1/2,+z+1/4   |
|   {2_x00|(0.5,0.0,0.25)}   |    +x+1/2,-y,-z+1/4   |
|    {-1|(0.0,0.5,0.25)}     |    -x,-y+1/2,-z+1/4   |
|   {2_00z|(0.5,0.5,0.5)}    |  -x+1/2,-y+1/2,+z+1/2 |
|   {2_xx0|(0.0,0.0,0.5)}    |      +y,+x,-z+1/2     |
|  {-4^+_00z|(0.5,0.5,0.5)}  | +y+1/2,-x+1/2,-z+1/2  |
|  {4^-_00z|(0.5,0.0,0.75)}  |    +y+1/2,-x,+z+3/4   |
|       {1|(0.5,0.5,0.5)}    |  +x+1/2,+y+1/2,+z+1/2 |
|  {4^+_00z|(0.5,0.0,0.75)}  |    -y+1/2,+x,+z+3/4   |
|   {2_x00|(0.0,0.5,0.75)}   |    +x,-y+1/2,-z+3/4   |
|    {-1|(0.5,0.0,0.75)}     |    -x+1/2,-y,-z+3/4   |
|   {2_00z|(0.0,0.0,0.0)}    |      -x,-y,+z        |
|   {2_xx0|(0.5,0.5,0.0)}    |  +y+1/2,+x+1/2,-z     |
|  {-4^+_00z|(0.0,0.0,0.0)}  |      +y,-x,-z        |
|  {4^-_00z|(0.0,0.5,0.25)}  |    +y,-x+1/2,+z+1/4   |
+----------------------------+----------------------+
```

....

```
**********************
space group: 142:2 {'Hall': '-I 4bd 2c', 'HM': 'I 41/a c d:2'}
Crystal system: Tetragonal
Setting: 2
+x,+y,+z
-y+1/4,+x+3/4,+z+1/4
+x,-y,-z+1/2
```

....

```
+----------------------------+----------------------+
|            Seitz           |        Jones         |
+----------------------------+----------------------+
|       {1|(0.0,0.0,0.0)}    |       +x,+y,+z        |
|  {4^+_00z|(0.25,0.75,0.25)}| -y+1/4,+x+3/4,+z+1/4  |
|   {2_x00|(0.0,0.0,0.5)}    |     +x,-y,-z+1/2      |
|   {2_00z|(0.5,0.0,0.5)}    |   -x+1/2,-y,+z+1/2    |
|  {2_xx0|(0.25,0.75,0.75)}  | +y+1/4,+x+3/4,-z+3/4  |
|  {4^-_00z|(0.25,0.25,0.75)}| +y+1/4,-x+1/4,+z+3/4  |
```

```
|     {2_0y0|(0.5,0.0,0.0)}    |      −x+1/2,+y,−z       |
|  {2_x−x0|(0.25,0.25,0.25)}   | −y+1/4,−x+1/4,−z+1/4 |
|       {−1|(0.0,0.0,0.0)}      |        −x,−y,−z         |
| {−4^+_00z|(0.25,0.75,0.25)}  | +y+1/4,−x+3/4,−z+1/4 |
|     {m_0yz|(0.0,0.0,0.5)}     |       −x,+y,+z+1/2      |
|     {m_xy0|(0.5,0.0,0.5)}     |      +x+1/2,+y,−z+1/2   |
|  {m_x−xz|(0.25,0.75,0.75)}   | −y+1/4,−x+3/4,+z+3/4 |
| {−4^−_00z|(0.25,0.25,0.75)}  | −y+1/4,+x+1/4,−z+3/4 |
|     {m_x0z|(0.5,0.0,0.0)}     |       +x+1/2,−y,+z      |
|  {m_xxz|(0.25,0.25,0.25)}    | +y+1/4,+x+1/4,+z+1/4 |
|        {1|(0.5,0.5,0.5)}       |   +x+1/2,+y+1/2,+z+1/2  |
|  {4^+_00z|(0.75,0.25,0.75)}  | −y+3/4,+x+1/4,+z+3/4 |
|     {2_x00|(0.5,0.5,0.0)}     |     +x+1/2,−y+1/2,−z    |
|     {2_00z|(0.0,0.5,0.0)}     |       −x,−y+1/2,+z      |
|  {2_xx0|(0.75,0.25,0.25)}    | +y+3/4,+x+1/4,−z+1/4 |
| {4^−_00z|(0.75,0.75,0.25)}   | +y+3/4,−x+3/4,+z+1/4 |
|     {2_0y0|(0.0,0.5,0.5)}     |      −x,+y+1/2,−z+1/2   |
|  {2_x−x0|(0.75,0.75,0.75)}   | −y+3/4,−x+3/4,−z+3/4 |
|       {−1|(0.5,0.5,0.5)}      |   −x+1/2,−y+1/2,−z+1/2  |
| {−4^+_00z|(0.75,0.25,0.75)}  | +y+3/4,−x+1/4,−z+3/4 |
|     {m_0yz|(0.5,0.5,0.0)}     |      −x+1/2,+y+1/2,+z   |
|     {m_xy0|(0.0,0.5,0.0)}     |       +x,+y+1/2,−z      |
|  {m_x−xz|(0.75,0.25,0.25)}   | −y+3/4,−x+1/4,+z+1/4 |
| {−4^−_00z|(0.75,0.75,0.25)}  | −y+3/4,+x+3/4,−z+1/4 |
|     {m_x0z|(0.0,0.5,0.5)}     |      +x,−y+1/2,+z+1/2   |
|  {m_xxz|(0.75,0.75,0.75)}    | +y+3/4,+x+3/4,+z+3/4 |
+──────────────────────────────+────────────────────+
```

....


```
**********************
space group: 143 {'Hall': 'P 3', 'HM': 'P 3'}
Crystal system: Trigonal
+x,+y,+z
−y,+x−y,+z
..................
+──────────────────────+───────────+
|         Seitz        |   Jones   |
+──────────────────────+───────────+
|     {1|(0.0,0.0,0.0)}     |  +x,+y,+z  |
| {3^+_00z|(0.0,0.0,0.0)} | −y,+x−y,+z |
| {3^−_00z|(0.0,0.0,0.0)} | +y−x,−x,+z |
+──────────────────────+───────────+
```

....


```
**********************
space group: 144 {'Hall': ' P 31', 'HM': 'P 31'}
Crystal system: Trigonal
+x,+y,+z
−y,+x−y,+z+1/3
..................
+─────────────────────────────────+───────────────+
|              Seitz               |     Jones     |
+─────────────────────────────────+───────────────+
|        {1|(0.0,0.0,0.0)}          |    +x,+y,+z    |
```

```
| {3^+_00z|(0.0,0.0,0.333333333333)} | −y,+x−y,+z+1/3 |
| {3^−_00z|(0.0,0.0,0.666666666667)} | +y−x,−x,+z+2/3 |
+────────────────────────────────────+────────────────+
```
....

```
*********************
space group: 145 {'Hall': ' P 32', 'HM': 'P 32'}
Crystal system: Trigonal
+x,+y,+z
−y,+x−y,+z+2/3
```
....

```
+────────────────────────────────────+────────────────+
|                 Seitz               |      Jones     |
+────────────────────────────────────+────────────────+
|          {1|(0.0,0.0,0.0)}          |    +x,+y,+z    |
| {3^+_00z|(0.0,0.0,0.666666666667)} | −y,+x−y,+z+2/3 |
| {3^−_00z|(0.0,0.0,0.333333333333)} | +y−x,−x,+z+1/3 |
+────────────────────────────────────+────────────────+
```
....

```
*********************
space group: 146:H {'Hall': 'R 3', 'HM': 'R 3:H'}
Crystal system: Trigonal
Setting: H
+x,+y,+z
−y,+x−y,+z
```
....

```
+──────────────────────────────────────────────────────
───────────────────────+
|                            Seitz                     |
Jones            |
+──────────────────────────────────────────────────────
───────────────────────+
|                    {1|(0.0,0.0,0.0)}                 |
+x,+y,+z          |
|                   {3^+_00z|(0.0,0.0,0.0)}            |          −
y,+x−y,+z         |
|                   {3^−_00z|(0.0,0.0,0.0)}            |
+y−x,−x,+z        |
|    {1|(0.333333333333,0.666666666667,0.666666666667)}    |   +x
+1/3,+y+2/3,+z+2/3   |
| {3^+_00z|(0.333333333333,0.666666666667,0.666666666667)} | −y
+1/3,+x−y+2/3,+z+2/3 |
| {3^−_00z|(0.333333333333,0.666666666667,0.666666666667)} | +y−x
+1/3,−x+2/3,+z+2/3 |
|    {1|(0.666666666667,0.333333333333,0.333333333333)}    |   +x
+2/3,+y+1/3,+z+1/3   |
| {3^+_00z|(0.666666666667,0.333333333333,0.333333333333)} | −y
+2/3,+x−y+1/3,+z+1/3 |
| {3^−_00z|(0.666666666667,0.333333333333,0.333333333333)} | +y−x
+2/3,−x+1/3,+z+1/3 |
+──────────────────────────────────────────────────────
───────────────────────+
```
....

```
**********************
space group: 146:R {'Hall': 'P 3*', 'HM': 'R 3:R'}
Crystal system: Trigonal
Setting: R
+x,+y,+z
+z,+x,+y
..................
+-----------------------+----------+
|         Seitz         |  Jones   |
+-----------------------+----------+
|     {1|(0.0,0.0,0.0)} | +x,+y,+z |
| {3^+_xxx|(0.0,0.0,0.0)} | +z,+x,+y |
| {3^-_xxx|(0.0,0.0,0.0)} | +y,+z,+x |
+-----------------------+----------+

..................


**********************
space group: 147 {'Hall': '-P 3', 'HM': 'P -3'}
Crystal system: Trigonal
+x,+y,+z
-y,+x-y,+z
..................
+-----------------------+------------+
|         Seitz         |   Jones    |
+-----------------------+------------+
|      {1|(0.0,0.0,0.0)} |  +x,+y,+z  |
| {3^+_00z|(0.0,0.0,0.0)} | -y,+x-y,+z |
| {3^-_00z|(0.0,0.0,0.0)} | +y-x,-x,+z |
|     {-1|(0.0,0.0,0.0)} |  -x,-y,-z  |
| {-3^+_00z|(0.0,0.0,0.0)} | +y,+y-x,-z |
| {-3^-_00z|(0.0,0.0,0.0)} | +x-y,+x,-z |
+-----------------------+------------+

..................


**********************
space group: 148:H {'Hall': '-R 3', 'HM': 'R -3:H'}
Crystal system: Trigonal
Setting: H
+x,+y,+z
-y,+x-y,+z
..................
+-------------------------------------------------------------
+-----------------------+
|                            Seitz                           |
Jones              |
+-------------------------------------------------------------
+-----------------------+
|                   {1|(0.0,0.0,0.0)}                        |
+x,+y,+z           |
|                 {3^+_00z|(0.0,0.0,0.0)}                    |
-y,+x-y,+z         |
|                 {3^-_00z|(0.0,0.0,0.0)}                    |
+y-x,-x,+z         |
```

```
|                  {-1|(0.0,0.0,0.0)}                  |
-x,-y,-z          |
|               {-3^+_00z|(0.0,0.0,0.0)}               |
+y,+y-x,-z        |
|               {-3^-_00z|(0.0,0.0,0.0)}               |
+x-y,+x,-z        |
|      {1|(0.333333333333,0.666666666667,0.666666666667)}      |  +x
+1/3,+y+2/3,+z+2/3  |
|   {3^+_00z|(0.333333333333,0.666666666667,0.666666666667)} | -y
+1/3,+x-y+2/3,+z+2/3  |
|   {3^-_00z|(0.333333333333,0.666666666667,0.666666666667)} | +y-x
+1/3,-x+2/3,+z+2/3  |
|      {-1|(0.333333333333,0.666666666667,0.666666666667)}     |  -x
+1/3,-y+2/3,-z+2/3   |
| {-3^+_00z|(0.333333333333,0.666666666667,0.666666666667)} | +y
+1/3,+y-x+2/3,-z+2/3  |
| {-3^-_00z|(0.333333333333,0.666666666667,0.666666666667)} | +x-y
+1/3,+x+2/3,-z+2/3  |
|      {1|(0.666666666667,0.333333333333,0.333333333333)}      |  +x
+2/3,+y+1/3,+z+1/3   |
|   {3^+_00z|(0.666666666667,0.333333333333,0.333333333333)} | -y
+2/3,+x-y+1/3,+z+1/3  |
|   {3^-_00z|(0.666666666667,0.333333333333,0.333333333333)} | +y-x
+2/3,-x+1/3,+z+1/3  |
|      {-1|(0.666666666667,0.333333333333,0.333333333333)}     |  -x
+2/3,-y+1/3,-z+1/3   |
| {-3^+_00z|(0.666666666667,0.333333333333,0.333333333333)} | +y
+2/3,+y-x+1/3,-z+1/3  |
| {-3^-_00z|(0.666666666667,0.333333333333,0.333333333333)} | +x-y
+2/3,+x+1/3,-z+1/3  |
+-----------------------------------------------------------
+----------------------+
..................

**********************
space group: 148:R {'Hall': '-P 3*', 'HM': 'R -3:R'}
Crystal system: Trigonal
Setting: R
+x,+y,+z
+z,+x,+y
..................
+------------------------+----------+
|         Seitz          |   Jones  |
+------------------------+----------+
|     {1|(0.0,0.0,0.0)}  | +x,+y,+z |
| {3^+_xxx|(0.0,0.0,0.0)} | +z,+x,+y |
| {3^-_xxx|(0.0,0.0,0.0)} | +y,+z,+x |
|     {-1|(0.0,0.0,0.0)}  | -x,-y,-z |
| {-3^+_xxx|(0.0,0.0,0.0)} | -z,-x,-y |
| {-3^-_xxx|(0.0,0.0,0.0)} | -y,-z,-x |
+------------------------+----------+

..................

**********************
```

space group: 149 {'Hall': 'P 3 2', 'HM': 'P 3 1 2'}
Crystal system: Trigonal
+x,+y,+z
-y,+x-y,+z
-y,-x,-z
....
```
+-----------------------+-----------+
|        Seitz          |   Jones   |
+-----------------------+-----------+
|    {1|(0.0,0.0,0.0)}  |  +x,+y,+z |
| {3^+_00z|(0.0,0.0,0.0)}| -y,+x-y,+z|
|  {2_x-x0|(0.0,0.0,0.0)}|  -y,-x,-z |
| {3^-_00z|(0.0,0.0,0.0)}| +y-x,-x,+z|
|   {m_2xx0|(0.0,0.0,0.0)}| +x,+x-y,-z|
|   {2_x2x0|(0.0,0.0,0.0)}| +y-x,+y,-z|
+-----------------------+-----------+
```
....

****
space group: 150 {'Hall': 'P 3 2"', 'HM': 'P 3 2 1'}
Crystal system: Trigonal
+x,+y,+z
-y,+x-y,+z
+y,+x,-z
....
```
+-----------------------+-----------+
|        Seitz          |   Jones   |
+-----------------------+-----------+
|    {1|(0.0,0.0,0.0)}  |  +x,+y,+z |
| {3^+_00z|(0.0,0.0,0.0)}| -y,+x-y,+z|
|  {2_xx0|(0.0,0.0,0.0)} |  +y,+x,-z |
| {3^-_00z|(0.0,0.0,0.0)}| +y-x,-x,+z|
|   {2_0y0|(0.0,0.0,0.0)}| -x,+y-x,-z|
|   {2_x00|(0.0,0.0,0.0)}| +x-y,-y,-z|
+-----------------------+-----------+
```
....

****
space group: 151 {'Hall': ' P 31 2c (0,0,1)', 'HM': 'P 31 1 2'}
Crystal system: Trigonal
+x,+y,+z
-y,+x-y,+z+1/3
-y,-x,-z+2/3
....
```
+---------------------------------------+----------------+
|                 Seitz                 |     Jones      |
+---------------------------------------+----------------+
|         {1|(0.0,0.0,0.0)}             |    +x,+y,+z    |
| {3^+_00z|(0.0,0.0,0.333333333333)}    | -y,+x-y,+z+1/3 |
| {2_x-x0|(0.0,0.0,0.666666666667)}     |  -y,-x,-z+2/3  |
| {3^-_00z|(0.0,0.0,0.666666666667)}    | +y-x,-x,+z+2/3 |
|         {m_2xx0|(0.0,0.0,0.0)}        |   +x,+x-y,-z   |
| {2_x2x0|(0.0,0.0,0.333333333333)}     | +y-x,+y,-z+1/3 |
+---------------------------------------+----------------+
```

....

****
space group: 152 {'Hall': ' P 31 2"', 'HM': 'P 31 2 1'}
Crystal system: Trigonal
+x,+y,+z
−y,+x−y,+z+1/3
+y,+x,−z
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{3^+_00z|(0.0,0.0,0.333333333333)}	−y,+x−y,+z+1/3
{2_xx0|(0.0,0.0,0.0)}	+y,+x,−z
{3^−_00z|(0.0,0.0,0.666666666667)}	+y−x,−x,+z+2/3
{2_0y0|(0.0,0.0,0.333333333333)}	−x,+y−x,−z+1/3
{2_x00|(0.0,0.0,0.666666666667)}	+x−y,−y,−z+2/3

....

****
space group: 153 {'Hall': ' P 32 2c (0,0,−1)', 'HM': 'P 32 1 2'}
Crystal system: Trigonal
+x,+y,+z
−y,+x−y,+z+2/3
−y,−x,−z+1/3
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{3^+_00z|(0.0,0.0,0.666666666667)}	−y,+x−y,+z+2/3
{2_x−x0|(0.0,0.0,0.333333333333)}	−y,−x,−z+1/3
{3^−_00z|(0.0,0.0,0.333333333333)}	+y−x,−x,+z+1/3
{m_2xx0|(0.0,0.0,0.0)}	+x,+x−y,−z
{2_x2x0|(0.0,0.0,0.666666666667)}	+y−x,+y,−z+2/3

....

****
space group: 154 {'Hall': ' P 32 2"', 'HM': 'P 32 2 1'}
Crystal system: Trigonal
+x,+y,+z
−y,+x−y,+z+2/3
+y,+x,−z
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{3^+_00z|(0.0,0.0,0.666666666667)}	−y,+x−y,+z+2/3
{2_xx0|(0.0,0.0,0.0)}	+y,+x,−z
{3^−_00z|(0.0,0.0,0.333333333333)}	+y−x,−x,+z+1/3

```
|   {2_0y0|(0.0,0.0,0.666666666667)}  |  -x,+y-x,-z+2/3 |
|   {2_x00|(0.0,0.0,0.333333333333)}  |  +x-y,-y,-z+1/3 |
+----------------------------------+---------------+
.................

*********************
space group: 155:H {'Hall': ' R 3 2"', 'HM': 'R 32:H'}
Crystal system: Trigonal
Setting: H
+x,+y,+z
-y,+x-y,+z
+y,+x,-z
.................
+---------------------------------------------------
+----------------------+
|                        Seitz                      |
Jones              |
+---------------------------------------------------
+----------------------+
|                  {1|(0.0,0.0,0.0)}                |
+x,+y,+z        |
|                {3^+_00z|(0.0,0.0,0.0)}            |       -
y,+x-y,+z        |
|                 {2_xx0|(0.0,0.0,0.0)}             |
+y,+x,-z        |
|                {3^-_00z|(0.0,0.0,0.0)}            |
+y-x,-x,+z       |
|                 {2_0y0|(0.0,0.0,0.0)}             |       -
x,+y-x,-z        |
|                 {2_x00|(0.0,0.0,0.0)}             |
+x-y,-y,-z        |
|    {1|(0.333333333333,0.666666666667,0.666666666667)}    |  +x
+1/3,+y+2/3,+z+2/3  |
| {3^+_00z|(0.333333333333,0.666666666667,0.666666666667)} | -y
+1/3,+x-y+2/3,+z+2/3  |
|   {2_xx0|(0.333333333333,0.666666666667,0.666666666667)}  |  +y
+1/3,+x+2/3,-z+2/3   |
| {3^-_00z|(0.333333333333,0.666666666667,0.666666666667)} | +y-x
+1/3,-x+2/3,+z+2/3  |
|   {2_0y0|(0.333333333333,0.666666666667,0.666666666667)}  | -x
+1/3,+y-x+2/3,-z+2/3  |
|   {2_x00|(0.333333333333,0.666666666667,0.666666666667)}  |  +x-y
+1/3,-y+2/3,-z+2/3  |
|    {1|(0.666666666667,0.333333333333,0.333333333333)}    |  +x
+2/3,+y+1/3,+z+1/3   |
| {3^+_00z|(0.666666666667,0.333333333333,0.333333333333)} | -y
+2/3,+x-y+1/3,+z+1/3  |
|   {2_xx0|(0.666666666667,0.333333333333,0.333333333333)}  |  +y
+2/3,+x+1/3,-z+1/3   |
| {3^-_00z|(0.666666666667,0.333333333333,0.333333333333)} | +y-x
+2/3,-x+1/3,+z+1/3  |
|   {2_0y0|(0.666666666667,0.333333333333,0.333333333333)}  | -x
+2/3,+y-x+1/3,-z+1/3  |
|   {2_x00|(0.666666666667,0.333333333333,0.333333333333)}  | +x-y
```

```
+2/3,-y+1/3,-z+1/3 |
+--------------------------------------------------------
+----------------------+
.................

*********************
space group: 155:R {'Hall': ' P 3* 2', 'HM': 'R 32:R'}
Crystal system: Trigonal
Setting: R
+x,+y,+z
+z,+x,+y
-y,-x,-z
.................
+------------------------+----------+
|         Seitz          |  Jones   |
+------------------------+----------+
|     {1|(0.0,0.0,0.0)}  | +x,+y,+z |
| {3^+_xxx|(0.0,0.0,0.0)} | +z,+x,+y |
|  {2_x-x0|(0.0,0.0,0.0)} | -y,-x,-z |
| {3^-_xxx|(0.0,0.0,0.0)} | +y,+z,+x |
|  {2_-x0x|(0.0,0.0,0.0)} | -z,-y,-x |
|  {2_0y-y|(0.0,0.0,0.0)} | -x,-z,-y |
+------------------------+----------+
.................

*********************
space group: 156 {'Hall': 'P 3 -2"', 'HM': 'P 3 m 1'}
Crystal system: Trigonal
+x,+y,+z
-y,+x-y,+z
-y,-x,+z
.................
+------------------------+------------+
|         Seitz          |   Jones    |
+------------------------+------------+
|     {1|(0.0,0.0,0.0)}  |  +x,+y,+z  |
| {3^+_00z|(0.0,0.0,0.0)} | -y,+x-y,+z |
|  {m_x-xz|(0.0,0.0,0.0)} |  -y,-x,+z  |
| {3^-_00z|(0.0,0.0,0.0)} | +y-x,-x,+z |
|  {m_2xxz|(0.0,0.0,0.0)} | +x,+x-y,+z |
|  {m_x2xz|(0.0,0.0,0.0)} | +y-x,+y,+z |
+------------------------+------------+
.................

*********************
space group: 157 {'Hall': 'P 3 -2', 'HM': 'P 3 1 m'}
Crystal system: Trigonal
+x,+y,+z
-y,+x-y,+z
+y,+x,+z
.................
+------------------------+-------------+
|         Seitz          |    Jones    |
+------------------------+-------------+
```

```
|      {1|(0.0,0.0,0.0)}      |   +x,+y,+z   |
|  {3^+_00z|(0.0,0.0,0.0)}    | −y,+x−y,+z   |
|    {m_xxz|(0.0,0.0,0.0)}     |   +y,+x,+z   |
|  {3^−_00z|(0.0,0.0,0.0)}    | +y−x,−x,+z   |
|    {m_0yz|(0.0,0.0,0.0)}     |  −x,+y−x,+z  |
|    {m_x0z|(0.0,0.0,0.0)}     |  +x−y,−y,+z  |
+────────────────────────+────────────+

..................


*********************
space group: 158 {'Hall': 'P 3 −2"c', 'HM': 'P 3 c 1'}
Crystal system: Trigonal
+x,+y,+z
−y,+x−y,+z
−y,−x,+z+1/2

..................
+────────────────────────+───────────────+
|          Seitz          |     Jones     |
+────────────────────────+───────────────+
|      {1|(0.0,0.0,0.0)}      |    +x,+y,+z    |
|  {3^+_00z|(0.0,0.0,0.0)}    |   −y,+x−y,+z   |
|   {m_x−xz|(0.0,0.0,0.5)}    |  −y,−x,+z+1/2  |
|  {3^−_00z|(0.0,0.0,0.0)}    |   +y−x,−x,+z   |
|   {m_2xxz|(0.0,0.0,0.5)}    | +x,+x−y,+z+1/2 |
|   {m_x2xz|(0.0,0.0,0.5)}    | +y−x,+y,+z+1/2 |
+────────────────────────+───────────────+

..................


*********************
space group: 159 {'Hall': 'P 3 −2c', 'HM': 'P 3 1 c'}
Crystal system: Trigonal
+x,+y,+z
−y,+x−y,+z
+y,+x,+z+1/2

..................
+────────────────────────+───────────────+
|          Seitz          |     Jones     |
+────────────────────────+───────────────+
|      {1|(0.0,0.0,0.0)}      |    +x,+y,+z    |
|  {3^+_00z|(0.0,0.0,0.0)}    |   −y,+x−y,+z   |
|    {m_xxz|(0.0,0.0,0.5)}     |  +y,+x,+z+1/2  |
|  {3^−_00z|(0.0,0.0,0.0)}    |   +y−x,−x,+z   |
|    {m_0yz|(0.0,0.0,0.5)}     | −x,+y−x,+z+1/2 |
|    {m_x0z|(0.0,0.0,0.5)}     | +x−y,−y,+z+1/2 |
+────────────────────────+───────────────+

..................


*********************
space group: 160:H {'Hall': 'R 3 −2"', 'HM': 'R 3 m:H'}
Crystal system: Trigonal
Setting: H
+x,+y,+z
−y,+x−y,+z
−y,−x,+z
```

```
.................
+-----------------------------------------------------------
+-----------------------+
|                           Seitz                          |
Jones          |
+-----------------------------------------------------------
+-----------------------+
|                    {1|(0.0,0.0,0.0)}                     |
+x,+y,+z        |
|                  {3^+_00z|(0.0,0.0,0.0)}                 |      -
y,+x-y,+z      |
|                   {m_x-xz|(0.0,0.0,0.0)}                 |
-y,-x,+z        |
|                  {3^-_00z|(0.0,0.0,0.0)}                 |
+y-x,-x,+z      |
|                   {m_2xxz|(0.0,0.0,0.0)}                 |
+x,+x-y,+z      |
|                   {m_x2xz|(0.0,0.0,0.0)}                 |
+y-x,+y,+z        |
|    {1|(0.333333333333,0.666666666667,0.666666666667)}    |   +x
+1/3,+y+2/3,+z+2/3   |
| {3^+_00z|(0.333333333333,0.666666666667,0.666666666667)} | -y
+1/3,+x-y+2/3,+z+2/3  |
| {m_x-xz|(0.333333333333,0.666666666667,0.666666666667)}  |  -y
+1/3,-x+2/3,+z+2/3   |
| {3^-_00z|(0.333333333333,0.666666666667,0.666666666667)} | +y-x
+1/3,-x+2/3,+z+2/3  |
| {m_2xxz|(0.333333333333,0.666666666667,0.666666666667)}  | +x
+1/3,+x-y+2/3,+z+2/3  |
| {m_x2xz|(0.333333333333,0.666666666667,0.666666666667)}  | +y-x
+1/3,+y+2/3,+z+2/3  |
|    {1|(0.666666666667,0.333333333333,0.333333333333)}    |   +x
+2/3,+y+1/3,+z+1/3   |
| {3^+_00z|(0.666666666667,0.333333333333,0.333333333333)} | -y
+2/3,+x-y+1/3,+z+1/3  |
| {m_x-xz|(0.666666666667,0.333333333333,0.333333333333)}  |  -y
+2/3,-x+1/3,+z+1/3   |
| {3^-_00z|(0.666666666667,0.333333333333,0.333333333333)} | +y-x
+2/3,-x+1/3,+z+1/3  |
| {m_2xxz|(0.666666666667,0.333333333333,0.333333333333)}  | +x
+2/3,+x-y+1/3,+z+1/3  |
| {m_x2xz|(0.666666666667,0.333333333333,0.333333333333)}  | +y-x
+2/3,+y+1/3,+z+1/3  |
+-----------------------------------------------------------
+-----------------------+
.................

**********************
space group: 160:R {'Hall': 'P 3* -2', 'HM': 'R 3 m:R'}
Crystal system: Trigonal
Setting: R
+x,+y,+z
+z,+x,+y
+y,+x,+z
```

```
..................
+-----------------------+----------+
|         Seitz         |  Jones   |
+-----------------------+----------+
|    {1|(0.0,0.0,0.0)}  | +x,+y,+z |
| {3^+_xxx|(0.0,0.0,0.0)}| +z,+x,+y |
|  {m_xxz|(0.0,0.0,0.0)} | +y,+x,+z |
| {3^-_xxx|(0.0,0.0,0.0)}| +y,+z,+x |
|  {m_xyx|(0.0,0.0,0.0)} | +z,+y,+x |
|  {m_xyy|(0.0,0.0,0.0)} | +x,+z,+y |
+-----------------------+----------+
..................
```

```
**********************
space group: 161:H {'Hall': 'R 3 -2"c', 'HM': 'R 3 c:H'}
Crystal system: Trigonal
Setting: H
+x,+y,+z
-y,+x-y,+z
-y,-x,+z+1/2
..................
+----------------------------------------------------------
+-----------------------+
|                             Seitz                        |
Jones          |
+----------------------------------------------------------
+-----------------------+
|                   {1|(0.0,0.0,0.0)}                      |
+x,+y,+z          |
|                {3^+_00z|(0.0,0.0,0.0)}                   |     -
y,+x-y,+z        |
|                 {m_x-xz|(0.0,0.0,0.5)}                   |     -
y,-x,+z+1/2       |
|                {3^-_00z|(0.0,0.0,0.0)}                   |
+y-x,-x,+z         |
|                 {m_2xxz|(0.0,0.0,0.5)}                   |      +x,
+x-y,+z+1/2       |
|                 {m_x2xz|(0.0,0.0,0.5)}                   |      +y-
x,+y,+z+1/2        |
|    {1|(0.333333333333,0.666666666667,0.666666666667)}     |  +x
+1/3,+y+2/3,+z+2/3   |
| {3^+_00z|(0.333333333333,0.666666666667,0.666666666667)} | -y
+1/3,+x-y+2/3,+z+2/3 |
| {m_x-xz|(0.333333333333,0.666666666667,0.166666666667)}  |  -y
+1/3,-x+2/3,+z+1/6   |
| {3^-_00z|(0.333333333333,0.666666666667,0.666666666667)} | +y-x
+1/3,-x+2/3,+z+2/3  |
| {m_2xxz|(0.333333333333,0.666666666667,0.166666666667)}  | +x
+1/3,+x-y+2/3,+z+1/6 |
| {m_x2xz|(0.333333333333,0.666666666667,0.166666666667)}  | +y-x
+1/3,+y+2/3,+z+1/6  |
|    {1|(0.666666666667,0.333333333333,0.333333333333)}     |  +x
+2/3,+y+1/3,+z+1/3   |
| {3^+_00z|(0.666666666667,0.333333333333,0.333333333333)} | -y
```

```
+2/3,+x−y+1/3,+z+1/3 |
| {m_x−xz|(0.666666666667,0.333333333333,0.833333333333)}  |  −y
+2/3,−x+1/3,+z+5/6   |
| {3^−_00z|(0.666666666667,0.333333333333,0.333333333333)} | +y−x
+2/3,−x+1/3,+z+1/3 |
| {m_2xxz|(0.666666666667,0.333333333333,0.833333333333)}  | +x
+2/3,+x−y+1/3,+z+5/6 |
| {m_x2xz|(0.666666666667,0.333333333333,0.833333333333)}  | +y−x
+2/3,+y+1/3,+z+5/6 |
+−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−
+−−−−−−−−−−−−−−−−−−−−−−+
..................

**********************
space group: 161:R {'Hall': 'P 3* −2n', 'HM': 'R 3 c:R'}
Crystal system: Trigonal
Setting: R
+x,+y,+z
+z,+x,+y
+y+1/2,+x+1/2,+z+1/2
..................
+−−−−−−−−−−−−−−−−−−−−−−−+−−−−−−−−−−−−−−−−−−−−+
|          Seitz        |        Jones       |
+−−−−−−−−−−−−−−−−−−−−−−−+−−−−−−−−−−−−−−−−−−−−+
|     {1|(0.0,0.0,0.0)}    |       +x,+y,+z       |
| {3^+_xxx|(0.0,0.0,0.0)}  |       +z,+x,+y       |
|   {m_xxz|(0.5,0.5,0.5)}  | +y+1/2,+x+1/2,+z+1/2 |
| {3^−_xxx|(0.0,0.0,0.0)}  |       +y,+z,+x       |
|   {m_xyx|(0.5,0.5,0.5)}  | +z+1/2,+y+1/2,+x+1/2 |
|   {m_xyy|(0.5,0.5,0.5)}  | +x+1/2,+z+1/2,+y+1/2 |
+−−−−−−−−−−−−−−−−−−−−−−−+−−−−−−−−−−−−−−−−−−−−+
..................

**********************
space group: 162 {'Hall': '−P 3 2', 'HM': 'P −3 1 m'}
Crystal system: Trigonal
+x,+y,+z
−y,+x−y,+z
−y,−x,−z
..................
+−−−−−−−−−−−−−−−−−−−−−−−+−−−−−−−−−−−+
|          Seitz        |    Jones  |
+−−−−−−−−−−−−−−−−−−−−−−−+−−−−−−−−−−−+
|     {1|(0.0,0.0,0.0)}    |  +x,+y,+z  |
| {3^+_00z|(0.0,0.0,0.0)}  | −y,+x−y,+z |
|   {2_x−x0|(0.0,0.0,0.0)}  |  −y,−x,−z  |
| {3^−_00z|(0.0,0.0,0.0)}  | +y−x,−x,+z |
|   {m_2xx0|(0.0,0.0,0.0)}  | +x,+x−y,−z |
|   {2_x2x0|(0.0,0.0,0.0)}  | +y−x,+y,−z |
|     {−1|(0.0,0.0,0.0)}    |  −x,−y,−z  |
| {−3^+_00z|(0.0,0.0,0.0)} | +y,+y−x,−z |
|   {m_xxz|(0.0,0.0,0.0)}  |  +y,+x,+z  |
| {−3^−_00z|(0.0,0.0,0.0)} | +x−y,+x,−z |
|   {m_0yz|(0.0,0.0,0.0)}  | −x,+y−x,+z |
```

```
|   {m_x0z|(0.0,0.0,0.0)}   | +x−y,−y,+z |
+────────────────────────+───────────+
..................


**********************
space group: 163 {'Hall': '−P 3 2c', 'HM': 'P −3 1 c'}
Crystal system: Trigonal
+x,+y,+z
−y,+x−y,+z
−y,−x,−z+1/2
..................
+────────────────────────+───────────────+
|          Seitz         |      Jones    |
+────────────────────────+───────────────+
|     {1|(0.0,0.0,0.0)}  |    +x,+y,+z    |
|  {3^+_00z|(0.0,0.0,0.0)}|   −y,+x−y,+z   |
|  {2_x−x0|(0.0,0.0,0.5)}|   −y,−x,−z+1/2  |
|  {3^−_00z|(0.0,0.0,0.0)}|   +y−x,−x,+z   |
|   {m_2xx0|(0.0,0.0,0.5)}| +x,+x−y,−z+1/2 |
|   {2_x2x0|(0.0,0.0,0.5)}| +y−x,+y,−z+1/2 |
|     {−1|(0.0,0.0,0.0)}  |    −x,−y,−z    |
| {−3^+_00z|(0.0,0.0,0.0)}|   +y,+y−x,−z   |
|   {m_xxz|(0.0,0.0,0.5)} |  +y,+x,+z+1/2  |
| {−3^−_00z|(0.0,0.0,0.0)}|   +x−y,+x,−z   |
|   {m_0yz|(0.0,0.0,0.5)} |  −x,+y−x,+z+1/2 |
|   {m_x0z|(0.0,0.0,0.5)} |  +x−y,−y,+z+1/2 |
+────────────────────────+───────────────+
..................


**********************
space group: 164 {'Hall': '−P 3 2"', 'HM': 'P −3 m 1'}
Crystal system: Trigonal
+x,+y,+z
−y,+x−y,+z
+y,+x,−z
..................
+────────────────────────+───────────+
|          Seitz         |    Jones  |
+────────────────────────+───────────+
|     {1|(0.0,0.0,0.0)}  |  +x,+y,+z |
|  {3^+_00z|(0.0,0.0,0.0)}| −y,+x−y,+z |
|   {2_xx0|(0.0,0.0,0.0)} |  +y,+x,−z |
|  {3^−_00z|(0.0,0.0,0.0)}| +y−x,−x,+z |
|   {2_0y0|(0.0,0.0,0.0)} | −x,+y−x,−z |
|   {2_x00|(0.0,0.0,0.0)} | +x−y,−y,−z |
|     {−1|(0.0,0.0,0.0)}  |  −x,−y,−z |
| {−3^+_00z|(0.0,0.0,0.0)}| +y,+y−x,−z |
|   {m_x−xz|(0.0,0.0,0.0)}|  −y,−x,+z |
| {−3^−_00z|(0.0,0.0,0.0)}| +x−y,+x,−z |
|   {m_2xxz|(0.0,0.0,0.0)}| +x,+x−y,+z |
|   {m_x2xz|(0.0,0.0,0.0)}| +y−x,+y,+z |
+────────────────────────+───────────+
..................
```

```
***********************
space group: 165 {'Hall': '-P 3 2"c', 'HM': 'P -3 c 1'}
Crystal system: Trigonal
+x,+y,+z
-y,+x-y,+z
+y,+x,-z+1/2
..................
+-----------------------+----------------+
|          Seitz        |     Jones      |
+-----------------------+----------------+
|      {1|(0.0,0.0,0.0)}        |     +x,+y,+z        |
|  {3^+_00z|(0.0,0.0,0.0)}      |    -y,+x-y,+z       |
|   {2_xx0|(0.0,0.0,0.5)}       |   +y,+x,-z+1/2      |
|  {3^-_00z|(0.0,0.0,0.0)}      |    +y-x,-x,+z       |
|   {2_0y0|(0.0,0.0,0.5)}       |  -x,+y-x,-z+1/2     |
|   {2_x00|(0.0,0.0,0.5)}       |  +x-y,-y,-z+1/2     |
|     {-1|(0.0,0.0,0.0)}        |     -x,-y,-z        |
| {-3^+_00z|(0.0,0.0,0.0)}      |    +y,+y-x,-z       |
|   {m_x-xz|(0.0,0.0,0.5)}      |   -y,-x,+z+1/2      |
| {-3^-_00z|(0.0,0.0,0.0)}      |    +x-y,+x,-z       |
|   {m_2xxz|(0.0,0.0,0.5)}      |  +x,+x-y,+z+1/2     |
|   {m_x2xz|(0.0,0.0,0.5)}      |  +y-x,+y,+z+1/2     |
+-----------------------+----------------+
..................


***********************
space group: 166:H {'Hall': '-R 3 2"', 'HM': 'R -3 m:H'}
Crystal system: Trigonal
Setting: H
+x,+y,+z
-y,+x-y,+z
+y,+x,-z
..................
+-------------------------------------------------------
+-----------------------+
|                        Seitz                         |
Jones         |
+-------------------------------------------------------
+-----------------------+
|                {1|(0.0,0.0,0.0)}                     |
+x,+y,+z        |
|              {3^+_00z|(0.0,0.0,0.0)}                 |
-y,+x-y,+z        |
|               {2_xx0|(0.0,0.0,0.0)}                  |
+y,+x,-z        |
|              {3^-_00z|(0.0,0.0,0.0)}                 |
+y-x,-x,+z        |
|               {2_0y0|(0.0,0.0,0.0)}                  |
-x,+y-x,-z        |
|               {2_x00|(0.0,0.0,0.0)}                  |
+x-y,-y,-z        |
|                {-1|(0.0,0.0,0.0)}                    |
-x,-y,-z        |
|              {-3^+_00z|(0.0,0.0,0.0)}                |
```

```
+y,+y−x,−z          |
|                  {m_x−xz|(0.0,0.0,0.0)}                     |
−y,−x,+z         |
|                 {−3^−_00z|(0.0,0.0,0.0)}                    |
+x−y,+x,−z        |
|                  {m_2xxz|(0.0,0.0,0.0)}                     |
+x,+x−y,+z        |
|                  {m_x2xz|(0.0,0.0,0.0)}                     |
+y−x,+y,+z        |
|      {1|(0.333333333333,0.666666666667,0.666666666667)}    | +x
+1/3,+y+2/3,+z+2/3   |
|  {3^+_00z|(0.333333333333,0.666666666667,0.666666666667)} | −y
+1/3,+x−y+2/3,+z+2/3 |
|   {2_xx0|(0.333333333333,0.666666666667,0.666666666667)}   | +y
+1/3,+x+2/3,−z+2/3   |
|  {3^−_00z|(0.333333333333,0.666666666667,0.666666666667)} | +y−x
+1/3,−x+2/3,+z+2/3 |
|    {2_0y0|(0.333333333333,0.666666666667,0.666666666667)}   | −x
+1/3,+y−x+2/3,−z+2/3 |
|   {2_x00|(0.333333333333,0.666666666667,0.666666666667)}   | +x−y
+1/3,−y+2/3,−z+2/3 |
|      {−1|(0.333333333333,0.666666666667,0.666666666667)}     | −x
+1/3,−y+2/3,−z+2/3   |
| {−3^+_00z|(0.333333333333,0.666666666667,0.666666666667)} | +y
+1/3,+y−x+2/3,−z+2/3 |
|   {m_x−xz|(0.333333333333,0.666666666667,0.666666666667)}   | −y
+1/3,−x+2/3,+z+2/3   |
| {−3^−_00z|(0.333333333333,0.666666666667,0.666666666667)} | +x−y
+1/3,+x+2/3,−z+2/3 |
|   {m_2xxz|(0.333333333333,0.666666666667,0.666666666667)}   | +x
+1/3,+x−y+2/3,+z+2/3 |
|   {m_x2xz|(0.333333333333,0.666666666667,0.666666666667)}   | +y−x
+1/3,+y+2/3,+z+2/3 |
|      {1|(0.666666666667,0.333333333333,0.333333333333)}     | +x
+2/3,+y+1/3,+z+1/3   |
|  {3^+_00z|(0.666666666667,0.333333333333,0.333333333333)} | −y
+2/3,+x−y+1/3,+z+1/3 |
|   {2_xx0|(0.666666666667,0.333333333333,0.333333333333)}   | +y
+2/3,+x+1/3,−z+1/3   |
|  {3^−_00z|(0.666666666667,0.333333333333,0.333333333333)} | +y−x
+2/3,−x+1/3,+z+1/3 |
|    {2_0y0|(0.666666666667,0.333333333333,0.333333333333)}   | −x
+2/3,+y−x+1/3,−z+1/3 |
|   {2_x00|(0.666666666667,0.333333333333,0.333333333333)}   | +x−y
+2/3,−y+1/3,−z+1/3 |
|      {−1|(0.666666666667,0.333333333333,0.333333333333)}     | −x
+2/3,−y+1/3,−z+1/3   |
| {−3^+_00z|(0.666666666667,0.333333333333,0.333333333333)} | +y
+2/3,+y−x+1/3,−z+1/3 |
|   {m_x−xz|(0.666666666667,0.333333333333,0.333333333333)}   | −y
+2/3,−x+1/3,+z+1/3   |
| {−3^−_00z|(0.666666666667,0.333333333333,0.333333333333)} | +x−y
+2/3,+x+1/3,−z+1/3 |
|   {m_2xxz|(0.666666666667,0.333333333333,0.333333333333)}   | +x
```

```
+2/3,+x−y+1/3,+z+1/3 |
|   {m_x2xz|(0.666666666667,0.333333333333,0.333333333333)}  | +y−x
+2/3,+y+1/3,+z+1/3 |
+──────────────────────────────────────────────────────
+─────────────────────+
..................


**********************
space group: 166:R {'Hall': '−P 3* 2', 'HM': 'R −3 m:R'}
Crystal system: Trigonal
Setting: R
+x,+y,+z
+z,+x,+y
−y,−x,−z
..................
+───────────────────────+──────────+
|          Seitz         |  Jones   |
+───────────────────────+──────────+
|      {1|(0.0,0.0,0.0)}  | +x,+y,+z |
|  {3^+_xxx|(0.0,0.0,0.0)} | +z,+x,+y |
|   {2_x−x0|(0.0,0.0,0.0)} | −y,−x,−z |
|  {3^−_xxx|(0.0,0.0,0.0)} | +y,+z,+x |
|   {2_−x0x|(0.0,0.0,0.0)} | −z,−y,−x |
|   {2_0y−y|(0.0,0.0,0.0)} | −x,−z,−y |
|      {−1|(0.0,0.0,0.0)}  | −x,−y,−z |
| {−3^+_xxx|(0.0,0.0,0.0)} | −z,−x,−y |
|    {m_xxz|(0.0,0.0,0.0)} | +y,+x,+z |
| {−3^−_xxx|(0.0,0.0,0.0)} | −y,−z,−x |
|    {m_xyx|(0.0,0.0,0.0)} | +z,+y,+x |
|    {m_xyy|(0.0,0.0,0.0)} | +x,+z,+y |
+───────────────────────+──────────+
..................


**********************
space group: 167:H {'Hall': '−R 3 2"c', 'HM': 'R −3 c:H'}
Crystal system: Trigonal
Setting: H
+x,+y,+z
−y,+x−y,+z
+y,+x,−z+1/2
..................
+──────────────────────────────────────────────────────
+─────────────────────+
|                          Seitz                            |
Jones          |
+──────────────────────────────────────────────────────
+─────────────────────+
|                   {1|(0.0,0.0,0.0)}                       |
+x,+y,+z       |
|                 {3^+_00z|(0.0,0.0,0.0)}                   |
−y,+x−y,+z      |
|                  {2_xx0|(0.0,0.0,0.5)}                    |
+y,+x,−z+1/2     |
|                 {3^−_00z|(0.0,0.0,0.0)}                   |
```

```
+y−x,−x,+z           |
|                      {2_0y0|(0.0,0.0,0.5)}                           |     −
x,+y−x,−z+1/2        |
|                      {2_x00|(0.0,0.0,0.5)}                           |
+x−y,−y,−z+1/2       |
|                       {−1|(0.0,0.0,0.0)}                             |
−x,−y,−z             |
|                     {−3^+_00z|(0.0,0.0,0.0)}                         |
+y,+y−x,−z           |
|                      {m_x−xz|(0.0,0.0,0.5)}                          |     −
y,−x,+z+1/2          |
|                     {−3^−_00z|(0.0,0.0,0.0)}                         |
+x−y,+x,−z           |
|                      {m_2xxz|(0.0,0.0,0.5)}                          |
+x,+x−y,+z+1/2       |
|                      {m_x2xz|(0.0,0.0,0.5)}                          |
+y−x,+y,+z+1/2       |
|       {1|(0.333333333333,0.666666666667,0.666666666667)}       |   +x
+1/3,+y+2/3,+z+2/3    |
|  {3^+_00z|(0.333333333333,0.666666666667,0.666666666667)} |  −y
+1/3,+x−y+2/3,+z+2/3  |
|    {2_xx0|(0.333333333333,0.666666666667,0.166666666667)}   |   +y
+1/3,+x+2/3,−z+1/6    |
|  {3^−_00z|(0.333333333333,0.666666666667,0.666666666667)} |  +y−x
+1/3,−x+2/3,+z+2/3    |
|    {2_0y0|(0.333333333333,0.666666666667,0.166666666667)}   |  −x
+1/3,+y−x+2/3,−z+1/6  |
|    {2_x00|(0.333333333333,0.666666666667,0.166666666667)}   |  +x−y
+1/3,−y+2/3,−z+1/6    |
|     {−1|(0.333333333333,0.666666666667,0.666666666667)}     |   −x
+1/3,−y+2/3,−z+2/3    |
| {−3^+_00z|(0.333333333333,0.666666666667,0.666666666667)} |  +y
+1/3,+y−x+2/3,−z+2/3  |
|    {m_x−xz|(0.333333333333,0.666666666667,0.166666666667)}   |   −y
+1/3,−x+2/3,+z+1/6    |
| {−3^−_00z|(0.333333333333,0.666666666667,0.666666666667)} |  +x−y
+1/3,+x+2/3,−z+2/3    |
|    {m_2xxz|(0.333333333333,0.666666666667,0.166666666667)}   |  +x
+1/3,+x−y+2/3,+z+1/6  |
|    {m_x2xz|(0.333333333333,0.666666666667,0.166666666667)}   |  +y−x
+1/3,+y+2/3,+z+1/6    |
|     {1|(0.666666666667,0.333333333333,0.333333333333)}      |   +x
+2/3,+y+1/3,+z+1/3    |
|  {3^+_00z|(0.666666666667,0.333333333333,0.333333333333)} |  −y
+2/3,+x−y+1/3,+z+1/3  |
|    {2_xx0|(0.666666666667,0.333333333333,0.833333333333)}   |   +y
+2/3,+x+1/3,−z+5/6    |
|  {3^−_00z|(0.666666666667,0.333333333333,0.333333333333)} |  +y−x
+2/3,−x+1/3,+z+1/3    |
|    {2_0y0|(0.666666666667,0.333333333333,0.833333333333)}   |  −x
+2/3,+y−x+1/3,−z+5/6  |
|    {2_x00|(0.666666666667,0.333333333333,0.833333333333)}   |  +x−y
+2/3,−y+1/3,−z+5/6    |
|     {−1|(0.666666666667,0.333333333333,0.333333333333)}     |   −x
```

```
                                                              +2/3,−y+1/3,−z+1/3   |
| {−3^+_00z|(0.666666666667,0.333333333333,0.333333333333)} | +y
+2/3,+y−x+1/3,−z+1/3 |
|   {m_x−xz|(0.666666666667,0.333333333333,0.833333333333)}  |  −y
+2/3,−x+1/3,+z+5/6  |
| {−3^−_00z|(0.666666666667,0.333333333333,0.333333333333)} | +x−y
+2/3,+x+1/3,−z+1/3 |
|   {m_2xxz|(0.666666666667,0.333333333333,0.833333333333)}  | +x
+2/3,+x−y+1/3,+z+5/6 |
|   {m_x2xz|(0.666666666667,0.333333333333,0.833333333333)}  | +y−x
+2/3,+y+1/3,+z+5/6 |
+------------------------------------------------------------
+----------------------+
..................


*********************
space group: 167:R {'Hall': '−P 3* 2n', 'HM': 'R −3 c:R'}
Crystal system: Trigonal
Setting: R
+x,+y,+z
+z,+x,+y
−y+1/2,−x+1/2,−z+1/2
..................
+----------------------+--------------------+
|         Seitz        |        Jones       |
+----------------------+--------------------+
|     {1|(0.0,0.0,0.0)}     |       +x,+y,+z       |
| {3^+_xxx|(0.0,0.0,0.0)}   |       +z,+x,+y       |
|   {2_x−x0|(0.5,0.5,0.5)}  | −y+1/2,−x+1/2,−z+1/2 |
| {3^−_xxx|(0.0,0.0,0.0)}   |       +y,+z,+x       |
|   {2_−x0x|(0.5,0.5,0.5)}  | −z+1/2,−y+1/2,−x+1/2 |
|   {2_0y−y|(0.5,0.5,0.5)}  | −x+1/2,−z+1/2,−y+1/2 |
|    {−1|(0.0,0.0,0.0)}     |       −x,−y,−z       |
| {−3^+_xxx|(0.0,0.0,0.0)}  |       −z,−x,−y       |
|   {m_xxz|(0.5,0.5,0.5)}   | +y+1/2,+x+1/2,+z+1/2 |
| {−3^−_xxx|(0.0,0.0,0.0)}  |       −y,−z,−x       |
|   {m_xyx|(0.5,0.5,0.5)}   | +z+1/2,+y+1/2,+x+1/2 |
|   {m_xyy|(0.5,0.5,0.5)}   | +x+1/2,+z+1/2,+y+1/2 |
+----------------------+--------------------+
..................


*********************
space group: 168 {'Hall': 'P 6', 'HM': 'P 6'}
Crystal system: Hexagonal
+x,+y,+z
+x−y,+x,+z
..................
+----------------------+------------+
|         Seitz        |    Jones   |
+----------------------+------------+
|     {1|(0.0,0.0,0.0)}     |  +x,+y,+z  |
| {6^+_00z|(0.0,0.0,0.0)}   | +x−y,+x,+z |
| {3^+_00z|(0.0,0.0,0.0)}   | −y,+x−y,+z |
|   {2_00z|(0.0,0.0,0.0)}   |  −x,−y,+z  |
```

```
| {3^-_00z|(0.0,0.0,0.0)} | +y-x,-x,+z |
| {6^-_00z|(0.0,0.0,0.0)} | +y,+y-x,+z |
+------------------------+-----------+
```
....

```
**********************
space group: 169 {'Hall': ' P 61', 'HM': 'P 61'}
Crystal system: Hexagonal
+x,+y,+z
+x-y,+x,+z+1/6
```
....
```
+----------------------------------+----------------+
|               Seitz              |     Jones      |
+----------------------------------+----------------+
|         {1|(0.0,0.0,0.0)}        |    +x,+y,+z    |
| {6^+_00z|(0.0,0.0,0.166666666667)} | +x-y,+x,+z+1/6 |
| {3^+_00z|(0.0,0.0,0.333333333333)} | -y,+x-y,+z+1/3 |
|        {2_00z|(0.0,0.0,0.5)}       |  -x,-y,+z+1/2  |
| {3^-_00z|(0.0,0.0,0.666666666667)} | +y-x,-x,+z+2/3 |
| {6^-_00z|(0.0,0.0,0.833333333333)} | +y,+y-x,+z+5/6 |
+----------------------------------+----------------+
```
....

```
**********************
space group: 170 {'Hall': ' P 65', 'HM': 'P 65'}
Crystal system: Hexagonal
+x,+y,+z
+x-y,+x,+z+5/6
```
....
```
+----------------------------------+----------------+
|               Seitz              |     Jones      |
+----------------------------------+----------------+
|         {1|(0.0,0.0,0.0)}        |    +x,+y,+z    |
| {6^+_00z|(0.0,0.0,0.833333333333)} | +x-y,+x,+z+5/6 |
| {3^+_00z|(0.0,0.0,0.666666666667)} | -y,+x-y,+z+2/3 |
|        {2_00z|(0.0,0.0,0.5)}       |  -x,-y,+z+1/2  |
| {3^-_00z|(0.0,0.0,0.333333333333)} | +y-x,-x,+z+1/3 |
| {6^-_00z|(0.0,0.0,0.166666666667)} | +y,+y-x,+z+1/6 |
+----------------------------------+----------------+
```
....

```
**********************
space group: 171 {'Hall': ' P 62', 'HM': 'P 62'}
Crystal system: Hexagonal
+x,+y,+z
+x-y,+x,+z+1/3
```
....
```
+----------------------------------+----------------+
|               Seitz              |     Jones      |
+----------------------------------+----------------+
|         {1|(0.0,0.0,0.0)}        |    +x,+y,+z    |
| {6^+_00z|(0.0,0.0,0.333333333333)} | +x-y,+x,+z+1/3 |
| {3^+_00z|(0.0,0.0,0.666666666667)} | -y,+x-y,+z+2/3 |
|        {2_00z|(0.0,0.0,0.0)}       |    -x,-y,+z    |
```

```
| {3^-_00z|(0.0,0.0,0.333333333333)} | +y-x,-x,+z+1/3 |
| {6^-_00z|(0.0,0.0,0.666666666667)} | +y,+y-x,+z+2/3 |
+------------------------------------+----------------+
```
....


```
**********************
space group: 172 {'Hall': ' P 64', 'HM': 'P 64'}
Crystal system: Hexagonal
+x,+y,+z
+x-y,+x,+z+2/3
```
....
```
+------------------------------------+----------------+
|               Seitz                |     Jones      |
+------------------------------------+----------------+
|          {1|(0.0,0.0,0.0)}         |    +x,+y,+z    |
| {6^+_00z|(0.0,0.0,0.666666666667)} | +x-y,+x,+z+2/3 |
| {3^+_00z|(0.0,0.0,0.333333333333)} | -y,+x-y,+z+1/3 |
|         {2_00z|(0.0,0.0,0.0)}      |    -x,-y,+z    |
| {3^-_00z|(0.0,0.0,0.666666666667)} | +y-x,-x,+z+2/3 |
| {6^-_00z|(0.0,0.0,0.333333333333)} | +y,+y-x,+z+1/3 |
+------------------------------------+----------------+
```
....


```
**********************
space group: 173 {'Hall': ' P 6c', 'HM': 'P 63'}
Crystal system: Hexagonal
+x,+y,+z
+x-y,+x,+z+1/2
```
....
```
+-----------------------+----------------+
|         Seitz         |     Jones      |
+-----------------------+----------------+
|    {1|(0.0,0.0,0.0)}  |    +x,+y,+z    |
| {6^+_00z|(0.0,0.0,0.5)}| +x-y,+x,+z+1/2 |
| {3^+_00z|(0.0,0.0,0.0)}|   -y,+x-y,+z   |
|   {2_00z|(0.0,0.0,0.5)}|   -x,-y,+z+1/2 |
| {3^-_00z|(0.0,0.0,0.0)}|   +y-x,-x,+z   |
| {6^-_00z|(0.0,0.0,0.5)}| +y,+y-x,+z+1/2 |
+-----------------------+----------------+
```
....


```
**********************
space group: 174 {'Hall': ' P -6', 'HM': 'P -6'}
Crystal system: Hexagonal
+x,+y,+z
+y-x,-x,-z
```
....
```
+-----------------------+------------+
|         Seitz         |    Jones   |
+-----------------------+------------+
|    {1|(0.0,0.0,0.0)}  |  +x,+y,+z  |
| {-6^+_00z|(0.0,0.0,0.0)}| +y-x,-x,-z |
| {3^+_00z|(0.0,0.0,0.0)} |  -y,+x-y,+z |
|   {m_xy0|(0.0,0.0,0.0)} |  +x,+y,-z  |
```

```
| {3^-_00z|(0.0,0.0,0.0)}   | +y-x,-x,+z |
| {-6^-_00z|(0.0,0.0,0.0)}  | -y,+x-y,-z |
+--------------------------+------------+
```
....

```
**********************
space group: 175 {'Hall': ' -P 6', 'HM': 'P 6/m'}
Crystal system: Hexagonal
+x,+y,+z
+x-y,+x,+z
```
....
```
+--------------------------+------------+
|          Seitz           |    Jones   |
+--------------------------+------------+
|     {1|(0.0,0.0,0.0)}    |  +x,+y,+z  |
| {6^+_00z|(0.0,0.0,0.0)}  | +x-y,+x,+z |
| {3^+_00z|(0.0,0.0,0.0)}  | -y,+x-y,+z |
|  {2_00z|(0.0,0.0,0.0)}   |  -x,-y,+z  |
| {3^-_00z|(0.0,0.0,0.0)}  | +y-x,-x,+z |
| {6^-_00z|(0.0,0.0,0.0)}  | +y,+y-x,+z |
|     {-1|(0.0,0.0,0.0)}   |  -x,-y,-z  |
| {-6^+_00z|(0.0,0.0,0.0)} | +y-x,-x,-z |
| {-3^+_00z|(0.0,0.0,0.0)} | +y,+y-x,-z |
|  {m_xy0|(0.0,0.0,0.0)}   |  +x,+y,-z  |
| {-3^-_00z|(0.0,0.0,0.0)} | +x-y,+x,-z |
| {-6^-_00z|(0.0,0.0,0.0)} | -y,+x-y,-z |
+--------------------------+------------+
```
....

```
**********************
space group: 176 {'Hall': '-P 6c', 'HM': 'P 63/m'}
Crystal system: Hexagonal
+x,+y,+z
+x-y,+x,+z+1/2
```
....
```
+--------------------------+----------------+
|          Seitz           |      Jones     |
+--------------------------+----------------+
|     {1|(0.0,0.0,0.0)}    |    +x,+y,+z    |
| {6^+_00z|(0.0,0.0,0.5)}  |  +x-y,+x,+z+1/2|
| {3^+_00z|(0.0,0.0,0.0)}  |   -y,+x-y,+z   |
|  {2_00z|(0.0,0.0,0.5)}   |   -x,-y,+z+1/2 |
| {3^-_00z|(0.0,0.0,0.0)}  |   +y-x,-x,+z   |
| {6^-_00z|(0.0,0.0,0.5)}  |  +y,+y-x,+z+1/2|
|     {-1|(0.0,0.0,0.0)}   |    -x,-y,-z    |
| {-6^+_00z|(0.0,0.0,0.5)} |  +y-x,-x,-z+1/2|
| {-3^+_00z|(0.0,0.0,0.0)} |   +y,+y-x,-z   |
|  {m_xy0|(0.0,0.0,0.5)}   |   +x,+y,-z+1/2 |
| {-3^-_00z|(0.0,0.0,0.0)} |   +x-y,+x,-z   |
| {-6^-_00z|(0.0,0.0,0.5)} |  -y,+x-y,-z+1/2|
+--------------------------+----------------+
```
....

```
**********************
```

space group: 177 {'Hall': 'P 6 2', 'HM': 'P 6 2 2'}
Crystal system: Hexagonal
+x,+y,+z
+x−y,+x,+z
−y,−x,−z
....

+-----------------------+------------+
| Seitz | Jones |
+-----------------------+------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{6^+_00z	(0.0,0.0,0.0)}	+x−y,+x,+z
{2_x−x0	(0.0,0.0,0.0)}	−y,−x,−z
{3^+_00z	(0.0,0.0,0.0)}	−y,+x−y,+z
{2_x00	(0.0,0.0,0.0)}	+x−y,−y,−z
{2_00z	(0.0,0.0,0.0)}	−x,−y,+z
{m_2xx0	(0.0,0.0,0.0)}	+x,+x−y,−z
{3^−_00z	(0.0,0.0,0.0)}	+y−x,−x,+z
{2_xx0	(0.0,0.0,0.0)}	+y,+x,−z
{6^−_00z	(0.0,0.0,0.0)}	+y,+y−x,+z
{2_x2x0	(0.0,0.0,0.0)}	+y−x,+y,−z
{2_0y0	(0.0,0.0,0.0)}	−x,+y−x,−z
+-----------------------+------------+

....

****
space group: 178 {'Hall': ' P 61 2 (0,0,−1)', 'HM': 'P 61 2 2'}
Crystal system: Hexagonal
+x,+y,+z
+x−y,+x,+z+1/6
−y,−x,−z+−1/6
....

+-----------------------------------+----------------+
| Seitz | Jones |
+-----------------------------------+----------------+
{1	(0.0,0.0,0.0)}	+x,+y,+z
{6^+_00z	(0.0,0.0,0.166666666667)}	+x−y,+x,+z+1/6
{2_x−x0	(0.0,0.0,0.833333333333)}	−y,−x,−z+5/6
{3^+_00z	(0.0,0.0,0.333333333333)}	−y,+x−y,+z+1/3
{2_x00	(0.0,0.0,0.0)}	+x−y,−y,−z
{2_00z	(0.0,0.0,0.5)}	−x,−y,+z+1/2
{m_2xx0	(0.0,0.0,0.166666666667)}	+x,+x−y,−z+1/6
{3^−_00z	(0.0,0.0,0.666666666667)}	+y−x,−x,+z+2/3
{2_xx0	(0.0,0.0,0.333333333333)}	+y,+x,−z+1/3
{6^−_00z	(0.0,0.0,0.833333333333)}	+y,+y−x,+z+5/6
{2_x2x0	(0.0,0.0,0.5)}	+y−x,+y,−z+1/2
{2_0y0	(0.0,0.0,0.666666666667)}	−x,+y−x,−z+2/3
+-----------------------------------+----------------+

....

****
space group: 179 {'Hall': ' P 65 2 (0,0,1)', 'HM': 'P 65 2 2'}
Crystal system: Hexagonal
+x,+y,+z
+x−y,+x,+z+5/6

−y,−x,−z+1/6
....

```
+------------------------------------+----------------+
|               Seitz                |     Jones      |
+------------------------------------+----------------+
|          {1|(0.0,0.0,0.0)}         |    +x,+y,+z    |
|  {6^+_00z|(0.0,0.0,0.833333333333)} | +x−y,+x,+z+5/6 |
|  {2_x−x0|(0.0,0.0,0.166666666667)} |   −y,−x,−z+1/6 |
|  {3^+_00z|(0.0,0.0,0.666666666667)} | −y,+x−y,+z+2/3 |
|        {2_x00|(0.0,0.0,0.0)}       |    +x−y,−y,−z  |
|        {2_00z|(0.0,0.0,0.5)}       |   −x,−y,+z+1/2 |
|  {m_2xx0|(0.0,0.0,0.833333333333)} |  +x,+x−y,−z+5/6|
|  {3^−_00z|(0.0,0.0,0.333333333333)} | +y−x,−x,+z+1/3 |
|   {2_xx0|(0.0,0.0,0.666666666667)} |   +y,+x,−z+2/3 |
|  {6^−_00z|(0.0,0.0,0.166666666667)} | +y,+y−x,+z+1/6 |
|        {2_x2x0|(0.0,0.0,0.5)}      |  +y−x,+y,−z+1/2|
|  {2_0y0|(0.0,0.0,0.333333333333)}  | −x,+y−x,−z+1/3 |
+------------------------------------+----------------+
```

....

****
space group: 180 {'Hall': ' P 62 2c (0,0,1)', 'HM': 'P 62 2 2'}
Crystal system: Hexagonal
+x,+y,+z
+x−y,+x,+z+1/3
−y,−x,−z+2/3
....

```
+------------------------------------+----------------+
|               Seitz                |     Jones      |
+------------------------------------+----------------+
|          {1|(0.0,0.0,0.0)}         |    +x,+y,+z    |
|  {6^+_00z|(0.0,0.0,0.333333333333)} | +x−y,+x,+z+1/3 |
|  {2_x−x0|(0.0,0.0,0.666666666667)} |   −y,−x,−z+2/3 |
|  {3^+_00z|(0.0,0.0,0.666666666667)} | −y,+x−y,+z+2/3 |
|        {2_x00|(0.0,0.0,0.0)}       |    +x−y,−y,−z  |
|        {2_00z|(0.0,0.0,0.0)}       |     −x,−y,+z   |
|  {m_2xx0|(0.0,0.0,0.333333333333)} |  +x,+x−y,−z+1/3|
|  {3^−_00z|(0.0,0.0,0.333333333333)} | +y−x,−x,+z+1/3 |
|   {2_xx0|(0.0,0.0,0.666666666667)} |   +y,+x,−z+2/3 |
|  {6^−_00z|(0.0,0.0,0.666666666667)} | +y,+y−x,+z+2/3 |
|        {2_x2x0|(0.0,0.0,1.0)}      |  +y−x,+y,−z+1/1|
|  {2_0y0|(0.0,0.0,0.333333333333)}  | −x,+y−x,−z+1/3 |
+------------------------------------+----------------+
```

....

****
space group: 181 {'Hall': ' P 64 2c (0,0,−1)', 'HM': 'P 64 2 2'}
Crystal system: Hexagonal
+x,+y,+z
+x−y,+x,+z+2/3
−y,−x,−z+1/3
....

```
+------------------------------------+----------------+
|               Seitz                |     Jones      |
```

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{6^+_00z|(0.0,0.0,0.666666666667)}	+x−y,+x,+z+2/3
{2_x−x0|(0.0,0.0,0.333333333333)}	−y,−x,−z+1/3
{3^+_00z|(0.0,0.0,0.333333333333)}	−y,+x−y,+z+1/3
{2_x00|(0.0,0.0,0.0)}	+x−y,−y,−z
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{m_2xx0|(0.0,0.0,0.666666666667)}	+x,+x−y,−z+2/3
{3^−_00z|(0.0,0.0,0.666666666667)}	+y−x,−x,+z+2/3
{2_xx0|(0.0,0.0,0.333333333333)}	+y,+x,−z+1/3
{6^−_00z|(0.0,0.0,0.333333333333)}	+y,+y−x,+z+1/3
{2_x2x0|(0.0,0.0,1.0)}	+y−x,+y,−z+1/1
{2_0y0|(0.0,0.0,0.666666666667)}	−x,+y−x,−z+2/3

....

****
space group: 182 {'Hall': ' P 6c 2c', 'HM': 'P 63 2 2'}
Crystal system: Hexagonal
+x,+y,+z
+x−y,+x,+z+1/2
−y,−x,−z+1/2

....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{6^+_00z|(0.0,0.0,0.5)}	+x−y,+x,+z+1/2
{2_x−x0|(0.0,0.0,0.5)}	−y,−x,−z+1/2
{3^+_00z|(0.0,0.0,0.0)}	−y,+x−y,+z
{2_x00|(0.0,0.0,0.0)}	+x−y,−y,−z
{2_00z|(0.0,0.0,0.5)}	−x,−y,+z+1/2
{m_2xx0|(0.0,0.0,0.5)}	+x,+x−y,−z+1/2
{3^−_00z|(0.0,0.0,0.0)}	+y−x,−x,+z
{2_xx0|(0.0,0.0,0.0)}	+y,+x,−z
{6^−_00z|(0.0,0.0,0.5)}	+y,+y−x,+z+1/2
{2_x2x0|(0.0,0.0,0.5)}	+y−x,+y,−z+1/2
{2_0y0|(0.0,0.0,0.0)}	−x,+y−x,−z

....

****
space group: 183 {'Hall': 'P 6 −2', 'HM': 'P 6 m m'}
Crystal system: Hexagonal
+x,+y,+z
+x−y,+x,+z
+y,+x,+z

....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{6^+_00z|(0.0,0.0,0.0)}	+x−y,+x,+z
{m_xxz|(0.0,0.0,0.0)}	+y,+x,+z

```
| {3^+_00z|(0.0,0.0,0.0)} | −y,+x−y,+z |
|  {m_x2xz|(0.0,0.0,0.0)} | +y−x,+y,+z |
|   {2_00z|(0.0,0.0,0.0)} |  −x,−y,+z  |
|   {m_0yz|(0.0,0.0,0.0)} | −x,+y−x,+z |
| {3^−_00z|(0.0,0.0,0.0)} | +y−x,−x,+z |
|  {m_x−xz|(0.0,0.0,0.0)} |  −y,−x,+z  |
| {6^−_00z|(0.0,0.0,0.0)} | +y,+y−x,+z |
|   {m_x0z|(0.0,0.0,0.0)} | +x−y,−y,+z |
|  {m_2xxz|(0.0,0.0,0.0)} | +x,+x−y,+z |
+----------------------+-----------+
..................

*********************
space group: 184 {'Hall': 'P 6 −2c', 'HM': 'P 6 c c'}
Crystal system: Hexagonal
+x,+y,+z
+x−y,+x,+z
+y,+x,+z+1/2
..................
+----------------------+---------------+
|         Seitz        |     Jones     |
+----------------------+---------------+
|     {1|(0.0,0.0,0.0)}    |    +x,+y,+z    |
| {6^+_00z|(0.0,0.0,0.0)}  |  +x−y,+x,+z   |
|  {m_xxz|(0.0,0.0,0.5)}   |  +y,+x,+z+1/2 |
| {3^+_00z|(0.0,0.0,0.0)}  |  −y,+x−y,+z   |
|  {m_x2xz|(0.0,0.0,0.5)}  | +y−x,+y,+z+1/2|
|   {2_00z|(0.0,0.0,0.0)}  |   −x,−y,+z    |
|   {m_0yz|(0.0,0.0,0.5)}  | −x,+y−x,+z+1/2|
| {3^−_00z|(0.0,0.0,0.0)}  |  +y−x,−x,+z   |
|  {m_x−xz|(0.0,0.0,0.5)}  |  −y,−x,+z+1/2 |
| {6^−_00z|(0.0,0.0,0.0)}  |  +y,+y−x,+z   |
|   {m_x0z|(0.0,0.0,0.5)}  | +x−y,−y,+z+1/2|
|  {m_2xxz|(0.0,0.0,0.5)}  | +x,+x−y,+z+1/2|
+----------------------+---------------+
..................

*********************
space group: 185 {'Hall': ' P 6c −2', 'HM': 'P 63 c m'}
Crystal system: Hexagonal
+x,+y,+z
+x−y,+x,+z+1/2
+y,+x,+z
..................
+----------------------+---------------+
|         Seitz        |     Jones     |
+----------------------+---------------+
|     {1|(0.0,0.0,0.0)}    |    +x,+y,+z    |
| {6^+_00z|(0.0,0.0,0.5)}  | +x−y,+x,+z+1/2|
|  {m_xxz|(0.0,0.0,0.0)}   |    +y,+x,+z   |
| {3^+_00z|(0.0,0.0,0.0)}  |   −y,+x−y,+z  |
|  {m_x2xz|(0.0,0.0,0.5)}  | +y−x,+y,+z+1/2|
|   {2_00z|(0.0,0.0,0.5)}  |   −x,−y,+z+1/2|
|   {m_0yz|(0.0,0.0,0.0)}  |   −x,+y−x,+z  |
```

```
| {3^-_00z|(0.0,0.0,0.0)} |   +y-x,-x,+z   |
|  {m_x-xz|(0.0,0.0,0.5)} |   -y,-x,+z+1/2  |
|  {6^-_00z|(0.0,0.0,0.5)} | +y,+y-x,+z+1/2 |
|   {m_x0z|(0.0,0.0,0.0)}  |   +x-y,-y,+z   |
|  {m_2xxz|(0.0,0.0,0.5)}  | +x,+x-y,+z+1/2 |
+------------------------+----------------+
```

....

```
***********************
space group: 186 {'Hall': ' P 6c -2c', 'HM': 'P 63 m c'}
Crystal system: Hexagonal
+x,+y,+z
+x-y,+x,+z+1/2
+y,+x,+z+1/2
```

....

```
+------------------------+----------------+
|          Seitz         |      Jones     |
+------------------------+----------------+
|     {1|(0.0,0.0,0.0)}  |    +x,+y,+z    |
| {6^+_00z|(0.0,0.0,0.5)} | +x-y,+x,+z+1/2 |
|  {m_xxz|(0.0,0.0,0.5)}  |  +y,+x,+z+1/2  |
| {3^+_00z|(0.0,0.0,0.0)} |   -y,+x-y,+z   |
|  {m_x2xz|(0.0,0.0,0.0)} |   +y-x,+y,+z   |
|   {2_00z|(0.0,0.0,0.5)} |  -x,-y,+z+1/2  |
|   {m_0yz|(0.0,0.0,0.5)} | -x,+y-x,+z+1/2 |
| {3^-_00z|(0.0,0.0,0.0)} |   +y-x,-x,+z   |
|  {m_x-xz|(0.0,0.0,0.0)} |   -y,-x,+z     |
| {6^-_00z|(0.0,0.0,0.5)} | +y,+y-x,+z+1/2 |
|   {m_x0z|(0.0,0.0,0.5)} |  +x-y,-y,+z+1/2 |
|  {m_2xxz|(0.0,0.0,0.0)} |   +x,+x-y,+z   |
+------------------------+----------------+
```

....

```
***********************
space group: 187 {'Hall': ' P -6 2', 'HM': 'P -6 m 2'}
Crystal system: Hexagonal
+x,+y,+z
+y-x,-x,-z
-y,-x,-z
```

....

```
+------------------------+------------+
|          Seitz         |    Jones   |
+------------------------+------------+
|     {1|(0.0,0.0,0.0)}  |  +x,+y,+z  |
| {-6^+_00z|(0.0,0.0,0.0)} | +y-x,-x,-z |
|  {2_x-x0|(0.0,0.0,0.0)} |  -y,-x,-z  |
| {3^+_00z|(0.0,0.0,0.0)} | -y,+x-y,+z |
|  {m_x2xz|(0.0,0.0,0.0)} | +y-x,+y,+z |
|   {m_xy0|(0.0,0.0,0.0)} |  +x,+y,-z  |
|  {m_2xx0|(0.0,0.0,0.0)} | +x,+x-y,-z |
| {3^-_00z|(0.0,0.0,0.0)} | +y-x,-x,+z |
|  {m_x-xz|(0.0,0.0,0.0)} |  -y,-x,+z  |
| {-6^-_00z|(0.0,0.0,0.0)} | -y,+x-y,-z |
|  {2_x2x0|(0.0,0.0,0.0)} | +y-x,+y,-z |
```

```
|   {m_2xxz|(0.0,0.0,0.0)}   | +x,+x-y,+z |
+------------------------+------------+
..................

**********************
space group: 188 {'Hall': ' P -6c 2', 'HM': 'P -6 c 2'}
Crystal system: Hexagonal
+x,+y,+z
+y-x,-x,-z+1/2
-y,-x,-z
..................
+------------------------+---------------+
|         Seitz          |     Jones     |
+------------------------+---------------+
|     {1|(0.0,0.0,0.0)}  |   +x,+y,+z    |
| {-6^+_00z|(0.0,0.0,0.5)}| +y-x,-x,-z+1/2 |
|   {2_x-x0|(0.0,0.0,0.0)}|   -y,-x,-z    |
| {3^+_00z|(0.0,0.0,0.0)}|  -y,+x-y,+z   |
|   {m_x2xz|(0.0,0.0,0.5)}| +y-x,+y,+z+1/2 |
|   {m_xy0|(0.0,0.0,0.5)}|  +x,+y,-z+1/2 |
|   {m_2xx0|(0.0,0.0,0.0)}|  +x,+x-y,-z   |
| {3^-_00z|(0.0,0.0,0.0)}|  +y-x,-x,+z   |
|   {m_x-xz|(0.0,0.0,0.5)}|  -y,-x,+z+1/2 |
| {-6^-_00z|(0.0,0.0,0.5)}| -y,+x-y,-z+1/2 |
|   {2_x2x0|(0.0,0.0,0.0)}|  +y-x,+y,-z   |
|   {m_2xxz|(0.0,0.0,0.5)}| +x,+x-y,+z+1/2 |
+------------------------+---------------+
..................

**********************
space group: 189 {'Hall': ' P -6 -2', 'HM': 'P -6 2 m'}
Crystal system: Hexagonal
+x,+y,+z
+y-x,-x,-z
+y,+x,+z
..................
+------------------------+------------+
|         Seitz          |    Jones   |
+------------------------+------------+
|     {1|(0.0,0.0,0.0)}  |  +x,+y,+z  |
| {-6^+_00z|(0.0,0.0,0.0)}| +y-x,-x,-z |
|   {m_xxz|(0.0,0.0,0.0)}|  +y,+x,+z  |
| {3^+_00z|(0.0,0.0,0.0)}| -y,+x-y,+z |
|   {2_x00|(0.0,0.0,0.0)}| +x-y,-y,-z |
|   {m_xy0|(0.0,0.0,0.0)}|  +x,+y,-z  |
|   {m_0yz|(0.0,0.0,0.0)}| -x,+y-x,+z |
| {3^-_00z|(0.0,0.0,0.0)}| +y-x,-x,+z |
|   {2_xx0|(0.0,0.0,0.0)}|  +y,+x,-z  |
| {-6^-_00z|(0.0,0.0,0.0)}| -y,+x-y,-z |
|   {m_x0z|(0.0,0.0,0.0)}| +x-y,-y,+z |
|   {2_0y0|(0.0,0.0,0.0)}| -x,+y-x,-z |
+------------------------+------------+
..................
```

```
************************
space group: 190 {'Hall': ' P -6c -2c', 'HM': 'P -6 2 c'}
Crystal system: Hexagonal
+x,+y,+z
+y-x,-x,-z+1/2
+y,+x,+z+1/2
..................
+-----------------------+----------------+
|          Seitz        |     Jones      |
+-----------------------+----------------+
|      {1|(0.0,0.0,0.0)}          |     +x,+y,+z    |
| {-6^+_00z|(0.0,0.0,0.5)} | +y-x,-x,-z+1/2 |
|   {m_xxz|(0.0,0.0,0.5)}  |   +y,+x,+z+1/2 |
|  {3^+_00z|(0.0,0.0,0.0)} |    -y,+x-y,+z  |
|   {2_x00|(0.0,0.0,0.0)}  |    +x-y,-y,-z  |
|   {m_xy0|(0.0,0.0,0.5)}  |   +x,+y,-z+1/2 |
|   {m_0yz|(0.0,0.0,0.5)}  |  -x,+y-x,+z+1/2 |
|  {3^-_00z|(0.0,0.0,0.0)} |    +y-x,-x,+z  |
|   {2_xx0|(0.0,0.0,0.0)}  |     +y,+x,-z   |
| {-6^-_00z|(0.0,0.0,0.5)} | -y,+x-y,-z+1/2 |
|   {m_x0z|(0.0,0.0,0.5)}  |  +x-y,-y,+z+1/2 |
|   {2_0y0|(0.0,0.0,0.0)}  |    -x,+y-x,-z  |
+-----------------------+----------------+
..................

************************
space group: 191 {'Hall': ' -P 6 2', 'HM': 'P 6/m m m'}
Crystal system: Hexagonal
+x,+y,+z
+x-y,+x,+z
-y,-x,-z
..................
+-----------------------+------------+
|          Seitz        |    Jones   |
+-----------------------+------------+
|      {1|(0.0,0.0,0.0)}          |   +x,+y,+z  |
| {6^+_00z|(0.0,0.0,0.0)}  |  +x-y,+x,+z |
|  {2_x-x0|(0.0,0.0,0.0)}  |   -y,-x,-z  |
| {3^+_00z|(0.0,0.0,0.0)}  |  -y,+x-y,+z |
|   {2_x00|(0.0,0.0,0.0)}  |  +x-y,-y,-z |
|   {2_00z|(0.0,0.0,0.0)}  |   -x,-y,+z  |
|  {m_2xx0|(0.0,0.0,0.0)}  |  +x,+x-y,-z |
| {3^-_00z|(0.0,0.0,0.0)}  |  +y-x,-x,+z |
|   {2_xx0|(0.0,0.0,0.0)}  |   +y,+x,-z  |
| {6^-_00z|(0.0,0.0,0.0)}  |  +y,+y-x,+z |
|  {2_x2x0|(0.0,0.0,0.0)}  |  +y-x,+y,-z |
|   {2_0y0|(0.0,0.0,0.0)}  |  -x,+y-x,-z |
|     {-1|(0.0,0.0,0.0)}          |   -x,-y,-z  |
| {-6^+_00z|(0.0,0.0,0.0)} |  +y-x,-x,-z |
|   {m_xxz|(0.0,0.0,0.0)}  |   +y,+x,+z  |
| {-3^+_00z|(0.0,0.0,0.0)} |  +y,+y-x,-z |
|  {m_x2xz|(0.0,0.0,0.0)}  |  +y-x,+y,+z |
|   {m_xy0|(0.0,0.0,0.0)}  |   +x,+y,-z  |
|   {m_0yz|(0.0,0.0,0.0)}  |  -x,+y-x,+z |
```

```
| {-3^-_00z|(0.0,0.0,0.0)} |  +x-y,+x,-z  |
|  {m_x-xz|(0.0,0.0,0.0)}  |   -y,-x,+z   |
| {-6^-_00z|(0.0,0.0,0.0)} |  -y,+x-y,-z  |
|   {m_x0z|(0.0,0.0,0.0)}  |  +x-y,-y,+z  |
|  {m_2xxz|(0.0,0.0,0.0)}  |  +x,+x-y,+z  |
+-------------------------+-------------+
.................

*********************
space group: 192 {'Hall': ' -P 6 2c', 'HM': 'P 6/m c c'}
Crystal system: Hexagonal
+x,+y,+z
+x-y,+x,+z
-y,-x,-z+1/2
.................
+-------------------------+----------------+
|          Seitz          |      Jones     |
+-------------------------+----------------+
|      {1|(0.0,0.0,0.0)}  |    +x,+y,+z    |
|  {6^+_00z|(0.0,0.0,0.0)}  |   +x-y,+x,+z   |
|   {2_x-x0|(0.0,0.0,0.5)}  |  -y,-x,-z+1/2  |
|  {3^+_00z|(0.0,0.0,0.0)}  |   -y,+x-y,+z   |
|    {2_x00|(0.0,0.0,0.5)}  |  +x-y,-y,-z+1/2 |
|    {2_00z|(0.0,0.0,0.0)}  |    -x,-y,+z    |
|   {m_2xx0|(0.0,0.0,0.5)}  |  +x,+x-y,-z+1/2 |
|  {3^-_00z|(0.0,0.0,0.0)}  |   +y-x,-x,+z   |
|    {2_xx0|(0.0,0.0,0.5)}  |   +y,+x,-z+1/2  |
|  {6^-_00z|(0.0,0.0,0.0)}  |   +y,+y-x,+z   |
|    {2_x2x0|(0.0,0.0,0.5)}  |  +y-x,+y,-z+1/2 |
|    {2_0y0|(0.0,0.0,0.5)}  |  -x,+y-x,-z+1/2 |
|     {-1|(0.0,0.0,0.0)}  |    -x,-y,-z    |
| {-6^+_00z|(0.0,0.0,0.0)}  |   +y-x,-x,-z   |
|    {m_xxz|(0.0,0.0,0.5)}  |   +y,+x,+z+1/2  |
| {-3^+_00z|(0.0,0.0,0.0)}  |   +y,+y-x,-z   |
|   {m_x2xz|(0.0,0.0,0.5)}  |  +y-x,+y,+z+1/2 |
|    {m_xy0|(0.0,0.0,0.0)}  |    +x,+y,-z    |
|    {m_0yz|(0.0,0.0,0.5)}  |  -x,+y-x,+z+1/2 |
| {-3^-_00z|(0.0,0.0,0.0)}  |   +x-y,+x,-z   |
|   {m_x-xz|(0.0,0.0,0.5)}  |   -y,-x,+z+1/2  |
| {-6^-_00z|(0.0,0.0,0.0)}  |   -y,+x-y,-z   |
|    {m_x0z|(0.0,0.0,0.5)}  |  +x-y,-y,+z+1/2 |
|   {m_2xxz|(0.0,0.0,0.5)}  |  +x,+x-y,+z+1/2 |
+-------------------------+----------------+
.................

*********************
space group: 193 {'Hall': '-P 6c 2', 'HM': 'P 63/m c m'}
Crystal system: Hexagonal
+x,+y,+z
+x-y,+x,+z+1/2
-y,-x,-z
.................
+-------------------------+----------------+
|          Seitz          |      Jones     |
```

{1|(0.0,0.0,0.0)}	+x,+y,+z
{6^+_00z|(0.0,0.0,0.5)}	+x−y,+x,+z+1/2
{2_x−x0|(0.0,0.0,0.0)}	−y,−x,−z
{3^+_00z|(0.0,0.0,0.0)}	−y,+x−y,+z
{2_x00|(0.0,0.0,0.5)}	+x−y,−y,−z+1/2
{2_00z|(0.0,0.0,0.5)}	−x,−y,+z+1/2
{m_2xx0|(0.0,0.0,0.0)}	+x,+x−y,−z
{3^−_00z|(0.0,0.0,0.0)}	+y−x,−x,+z
{2_xx0|(0.0,0.0,0.5)}	+y,+x,−z+1/2
{6^−_00z|(0.0,0.0,0.5)}	+y,+y−x,+z+1/2
{2_x2x0|(0.0,0.0,0.0)}	+y−x,+y,−z
{2_0y0|(0.0,0.0,0.5)}	−x,+y−x,−z+1/2
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{−6^+_00z|(0.0,0.0,0.5)}	+y−x,−x,−z+1/2
{m_xxz|(0.0,0.0,0.0)}	+y,+x,+z
{−3^+_00z|(0.0,0.0,0.0)}	+y,+y−x,−z
{m_x2xz|(0.0,0.0,0.5)}	+y−x,+y,+z+1/2
{m_xy0|(0.0,0.0,0.5)}	+x,+y,−z+1/2
{m_0yz|(0.0,0.0,0.0)}	−x,+y−x,+z
{−3^−_00z|(0.0,0.0,0.0)}	+x−y,+x,−z
{m_x−xz|(0.0,0.0,0.5)}	−y,−x,+z+1/2
{−6^−_00z|(0.0,0.0,0.5)}	−y,+x−y,−z+1/2
{m_x0z|(0.0,0.0,0.0)}	+x−y,−y,+z
{m_2xxz|(0.0,0.0,0.5)}	+x,+x−y,+z+1/2

....

```
**********************
space group: 194 {'Hall': '−P 6c 2c', 'HM': 'P 63/m m c'}
Crystal system: Hexagonal
+x,+y,+z
+x−y,+x,+z+1/2
−y,−x,−z+1/2
```

....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{6^+_00z|(0.0,0.0,0.5)}	+x−y,+x,+z+1/2
{2_x−x0|(0.0,0.0,0.5)}	−y,−x,−z+1/2
{3^+_00z|(0.0,0.0,0.0)}	−y,+x−y,+z
{2_x00|(0.0,0.0,0.0)}	+x−y,−y,−z
{2_00z|(0.0,0.0,0.5)}	−x,−y,+z+1/2
{m_2xx0|(0.0,0.0,0.5)}	+x,+x−y,−z+1/2
{3^−_00z|(0.0,0.0,0.0)}	+y−x,−x,+z
{2_xx0|(0.0,0.0,0.0)}	+y,+x,−z
{6^−_00z|(0.0,0.0,0.5)}	+y,+y−x,+z+1/2
{2_x2x0|(0.0,0.0,0.5)}	+y−x,+y,−z+1/2
{2_0y0|(0.0,0.0,0.0)}	−x,+y−x,−z
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{−6^+_00z|(0.0,0.0,0.5)}	+y−x,−x,−z+1/2
{m_xxz|(0.0,0.0,0.5)}	+y,+x,+z+1/2
{−3^+_00z|(0.0,0.0,0.0)}	+y,+y−x,−z

```
| {m_x2xz|(0.0,0.0,0.0)}  |   +y-x,+y,+z    |
| {m_xy0|(0.0,0.0,0.5)}   |  +x,+y,-z+1/2   |
| {m_0yz|(0.0,0.0,0.5)}   | -x,+y-x,+z+1/2  |
| {-3^-_00z|(0.0,0.0,0.0)} |   +x-y,+x,-z    |
| {m_x-xz|(0.0,0.0,0.0)}  |    -y,-x,+z     |
| {-6^-_00z|(0.0,0.0,0.5)} | -y,+x-y,-z+1/2  |
| {m_x0z|(0.0,0.0,0.5)}   | +x-y,-y,+z+1/2  |
| {m_2xxz|(0.0,0.0,0.0)}  |   +x,+x-y,+z    |
+------------------------+----------------+
```
....

```
**********************
space group: 195 {'Hall': 'P 2 2 3', 'HM': 'P 2 3'}
Crystal system: Cubic
+x,+y,+z
-x,-y,+z
+x,-y,-z
+z,+x,+y
```
....
```
+------------------------+----------+
|         Seitz          |  Jones   |
+------------------------+----------+
|     {1|(0.0,0.0,0.0)}   | +x,+y,+z |
|   {2_00z|(0.0,0.0,0.0)} | -x,-y,+z |
|   {2_x00|(0.0,0.0,0.0)} | +x,-y,-z |
|  {3^+_xxx|(0.0,0.0,0.0)} | +z,+x,+y |
|   {2_0y0|(0.0,0.0,0.0)} | -x,+y,-z |
| {3^+_x-x-x|(0.0,0.0,0.0)} | -z,-x,+y |
| {3^+_-xx-x|(0.0,0.0,0.0)} | +z,-x,-y |
| {3^+_-x-xx|(0.0,0.0,0.0)} | -z,+x,-y |
|  {3^-_xxx|(0.0,0.0,0.0)} | +y,+z,+x |
| {3^-_-x-xx|(0.0,0.0,0.0)} | +y,-z,-x |
| {3^-_x-x-x|(0.0,0.0,0.0)} | -y,+z,-x |
| {3^-_-xx-x|(0.0,0.0,0.0)} | -y,-z,+x |
+------------------------+----------+
```
....

```
**********************
space group: 196 {'Hall': 'F 2 2 3', 'HM': 'F 2 3'}
Crystal system: Cubic
+x,+y,+z
-x,-y,+z
+x,-y,-z
+z,+x,+y
```
....
```
+------------------------+-----------------+
|         Seitz          |      Jones      |
+------------------------+-----------------+
|     {1|(0.0,0.0,0.0)}   |    +x,+y,+z     |
|   {2_00z|(0.0,0.0,0.0)} |    -x,-y,+z     |
|   {2_x00|(0.0,0.0,0.0)} |    +x,-y,-z     |
|  {3^+_xxx|(0.0,0.0,0.0)} |    +z,+x,+y     |
|   {2_0y0|(0.0,0.0,0.0)} |    -x,+y,-z     |
| {3^+_x-x-x|(0.0,0.0,0.0)} |    -z,-x,+y     |
```

```
| {3^+_-xx-x|(0.0,0.0,0.0)} |      +z,-x,-y      |
| {3^+_-x-xx|(0.0,0.0,0.0)} |      -z,+x,-y      |
|  {3^-_xxx|(0.0,0.0,0.0)}  |      +y,+z,+x      |
| {3^-_-x-xx|(0.0,0.0,0.0)} |      +y,-z,-x      |
| {3^-_x-x-x|(0.0,0.0,0.0)} |      -y,+z,-x      |
| {3^-_-xx-x|(0.0,0.0,0.0)} |      -y,-z,+x      |
|      {1|(0.0,0.5,0.5)}    | +x,+y+1/2,+z+1/2  |
|   {2_00z|(0.0,0.5,0.5)}   | -x,-y+1/2,+z+1/2  |
|   {2_x00|(0.0,0.5,0.5)}   | +x,-y+1/2,-z+1/2  |
|  {3^+_xxx|(0.0,0.5,0.5)}  | +z,+x+1/2,+y+1/2  |
|   {2_0y0|(0.0,0.5,0.5)}   | -x,+y+1/2,-z+1/2  |
| {3^+_x-x-x|(0.0,0.5,0.5)} | -z,-x+1/2,+y+1/2  |
| {3^+_-xx-x|(0.0,0.5,0.5)} | +z,-x+1/2,-y+1/2  |
| {3^+_-x-xx|(0.0,0.5,0.5)} | -z,+x+1/2,-y+1/2  |
|  {3^-_xxx|(0.0,0.5,0.5)}  | +y,+z+1/2,+x+1/2  |
| {3^-_-x-xx|(0.0,0.5,0.5)} | +y,-z+1/2,-x+1/2  |
| {3^-_x-x-x|(0.0,0.5,0.5)} | -y,+z+1/2,-x+1/2  |
| {3^-_-xx-x|(0.0,0.5,0.5)} | -y,-z+1/2,+x+1/2  |
|      {1|(0.5,0.0,0.5)}    | +x+1/2,+y,+z+1/2  |
|   {2_00z|(0.5,0.0,0.5)}   | -x+1/2,-y,+z+1/2  |
|   {2_x00|(0.5,0.0,0.5)}   | +x+1/2,-y,-z+1/2  |
|  {3^+_xxx|(0.5,0.0,0.5)}  | +z+1/2,+x,+y+1/2  |
|   {2_0y0|(0.5,0.0,0.5)}   | -x+1/2,+y,-z+1/2  |
| {3^+_x-x-x|(0.5,0.0,0.5)} | -z+1/2,-x,+y+1/2  |
| {3^+_-xx-x|(0.5,0.0,0.5)} | +z+1/2,-x,-y+1/2  |
| {3^+_-x-xx|(0.5,0.0,0.5)} | -z+1/2,+x,-y+1/2  |
|  {3^-_xxx|(0.5,0.0,0.5)}  | +y+1/2,+z,+x+1/2  |
| {3^-_-x-xx|(0.5,0.0,0.5)} | +y+1/2,-z,-x+1/2  |
| {3^-_x-x-x|(0.5,0.0,0.5)} | -y+1/2,+z,-x+1/2  |
| {3^-_-xx-x|(0.5,0.0,0.5)} | -y+1/2,-z,+x+1/2  |
|      {1|(0.5,0.5,0.0)}    | +x+1/2,+y+1/2,+z  |
|   {2_00z|(0.5,0.5,0.0)}   | -x+1/2,-y+1/2,+z  |
|   {2_x00|(0.5,0.5,0.0)}   | +x+1/2,-y+1/2,-z  |
|  {3^+_xxx|(0.5,0.5,0.0)}  | +z+1/2,+x+1/2,+y  |
|   {2_0y0|(0.5,0.5,0.0)}   | -x+1/2,+y+1/2,-z  |
| {3^+_x-x-x|(0.5,0.5,0.0)} | -z+1/2,-x+1/2,+y  |
| {3^+_-xx-x|(0.5,0.5,0.0)} | +z+1/2,-x+1/2,-y  |
| {3^+_-x-xx|(0.5,0.5,0.0)} | -z+1/2,+x+1/2,-y  |
|  {3^-_xxx|(0.5,0.5,0.0)}  | +y+1/2,+z+1/2,+x  |
| {3^-_-x-xx|(0.5,0.5,0.0)} | +y+1/2,-z+1/2,-x  |
| {3^-_x-x-x|(0.5,0.5,0.0)} | -y+1/2,+z+1/2,-x  |
| {3^-_-xx-x|(0.5,0.5,0.0)} | -y+1/2,-z+1/2,+x  |
+---------------------------+-------------------+
..................

********************
space group: 197 {'Hall': 'I 2 2 3', 'HM': 'I 2 3'}
Crystal system: Cubic
+x,+y,+z
-x,-y,+z
+x,-y,-z
+z,+x,+y
..................
+---------------------------+---------------------+
```

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z
{3^+_x−x−x|(0.0,0.0,0.0)}	−z,−x,+y
{3^+_−xx−x|(0.0,0.0,0.0)}	+z,−x,−y
{3^+_−x−xx|(0.0,0.0,0.0)}	−z,+x,−y
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{3^−_−x−xx|(0.0,0.0,0.0)}	+y,−z,−x
{3^−_x−x−x|(0.0,0.0,0.0)}	−y,+z,−x
{3^−_−xx−x|(0.0,0.0,0.0)}	−y,−z,+x
{1|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2
{2_00z|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,+z+1/2
{2_x00|(0.5,0.5,0.5)}	+x+1/2,−y+1/2,−z+1/2
{3^+_xxx|(0.5,0.5,0.5)}	+z+1/2,+x+1/2,+y+1/2
{2_0y0|(0.5,0.5,0.5)}	−x+1/2,+y+1/2,−z+1/2
{3^+_x−x−x|(0.5,0.5,0.5)}	−z+1/2,−x+1/2,+y+1/2
{3^+_−xx−x|(0.5,0.5,0.5)}	+z+1/2,−x+1/2,−y+1/2
{3^+_−x−xx|(0.5,0.5,0.5)}	−z+1/2,+x+1/2,−y+1/2
{3^−_xxx|(0.5,0.5,0.5)}	+y+1/2,+z+1/2,+x+1/2
{3^−_−x−xx|(0.5,0.5,0.5)}	+y+1/2,−z+1/2,−x+1/2
{3^−_x−x−x|(0.5,0.5,0.5)}	−y+1/2,+z+1/2,−x+1/2
{3^−_−xx−x|(0.5,0.5,0.5)}	−y+1/2,−z+1/2,+x+1/2

....

****
space group: 198 {'Hall': ' P 2ac 2ab 3', 'HM': 'P 21 3'}
Crystal system: Cubic
+x,+y,+z
−x+1/2,−y,+z+1/2
+x+1/2,−y+1/2,−z
+z,+x,+y
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{2_x00|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2
{3^+_x−x−x|(0.5,0.0,0.5)}	−z+1/2,−x,+y+1/2
{3^+_−xx−x|(0.5,0.5,0.0)}	+z+1/2,−x+1/2,−y
{3^+_−x−xx|(0.0,0.5,0.5)}	−z,+x+1/2,−y+1/2
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{3^−_−x−xx|(0.5,0.5,0.0)}	+y+1/2,−z+1/2,−x
{3^−_x−x−x|(0.0,0.5,0.5)}	−y,+z+1/2,−x+1/2
{3^−_−xx−x|(0.5,0.0,0.5)}	−y+1/2,−z,+x+1/2

....

```
*********************
space group: 199 {'Hall': ' I 2b 2c 3', 'HM': 'I 21 3'}
Crystal system: Cubic
+x,+y,+z
−x,−y+1/2,+z
+x,−y,−z+1/2
+z,+x,+y

..................
+─────────────────────────+────────────────────+
|         Seitz           |       Jones        |
+─────────────────────────+────────────────────+
|     {1|(0.0,0.0,0.0)}   |      +x,+y,+z       |
|   {2_00z|(0.0,0.5,0.0)} |     −x,−y+1/2,+z    |
|   {2_x00|(0.0,0.0,0.5)} |     +x,−y,−z+1/2    |
|  {3^+_xxx|(0.0,0.0,0.0)}|      +z,+x,+y       |
|   {2_0y0|(0.0,0.5,0.5)} |    −x,+y+1/2,−z+1/2 |
| {3^+_x−x−x|(0.0,0.5,0.0)}|    −z,−x+1/2,+y     |
| {3^+_−xx−x|(0.0,0.0,0.5)}|    +z,−x,−y+1/2     |
| {3^+_−x−xx|(0.0,0.5,0.5)}|   −z,+x+1/2,−y+1/2  |
|  {3^−_xxx|(0.0,0.0,0.0)} |      +y,+z,+x       |
| {3^−_−x−xx|(0.0,0.0,0.5)}|     +y,−z,−x+1/2    |
| {3^−_x−x−x|(0.5,0.0,0.0)}|     −y+1/2,+z,−x    |
| {3^−_−xx−x|(0.5,0.0,0.5)}|    −y+1/2,−z,+x+1/2 |
|     {1|(0.5,0.5,0.5)}   |   +x+1/2,+y+1/2,+z+1/2 |
|   {2_00z|(0.5,0.0,0.5)} |    −x+1/2,−y,+z+1/2 |
|   {2_x00|(0.5,0.5,0.0)} |    +x+1/2,−y+1/2,−z |
|  {3^+_xxx|(0.5,0.5,0.5)}|   +z+1/2,+x+1/2,+y+1/2 |
|   {2_0y0|(0.5,0.0,0.0)} |     −x+1/2,+y,−z    |
| {3^+_x−x−x|(0.5,0.0,0.5)}|    −z+1/2,−x,+y+1/2 |
| {3^+_−xx−x|(0.5,0.5,0.0)}|    +z+1/2,−x+1/2,−y |
| {3^+_−x−xx|(0.5,0.0,0.0)}|     −z+1/2,+x,−y    |
|  {3^−_xxx|(0.5,0.5,0.5)} |   +y+1/2,+z+1/2,+x+1/2 |
| {3^−_−x−xx|(0.5,0.5,0.0)}|    +y+1/2,−z+1/2,−x |
| {3^−_x−x−x|(0.0,0.5,0.5)}|    −y,+z+1/2,−x+1/2 |
| {3^−_−xx−x|(0.0,0.5,0.0)}|     −y,−z+1/2,+x    |
+─────────────────────────+────────────────────+

..................

*********************
space group: 200 {'Hall': '−P 2 2 3', 'HM': 'P m −3'}
Crystal system: Cubic
+x,+y,+z
−x,−y,+z
+x,−y,−z
+z,+x,+y

..................
+─────────────────────────+──────────+
|         Seitz           |   Jones  |
+─────────────────────────+──────────+
|     {1|(0.0,0.0,0.0)}   | +x,+y,+z |
|   {2_00z|(0.0,0.0,0.0)} | −x,−y,+z |
|   {2_x00|(0.0,0.0,0.0)} | +x,−y,−z |
|  {3^+_xxx|(0.0,0.0,0.0)}| +z,+x,+y |
```

```
|     {2_0y0|(0.0,0.0,0.0)}      |  -x,+y,-z |
|  {3^+_x-x-x|(0.0,0.0,0.0)}     |  -z,-x,+y |
|  {3^+_-xx-x|(0.0,0.0,0.0)}     |  +z,-x,-y |
|  {3^+_-x-xx|(0.0,0.0,0.0)}     |  -z,+x,-y |
|   {3^-_xxx|(0.0,0.0,0.0)}      |  +y,+z,+x |
|  {3^-_-x-xx|(0.0,0.0,0.0)}     |  +y,-z,-x |
|  {3^-_x-x-x|(0.0,0.0,0.0)}     |  -y,+z,-x |
|  {3^-_-xx-x|(0.0,0.0,0.0)}     |  -y,-z,+x |
|     {-1|(0.0,0.0,0.0)}         |  -x,-y,-z |
|    {m_xy0|(0.0,0.0,0.0)}       |  +x,+y,-z |
|    {m_0yz|(0.0,0.0,0.0)}       |  -x,+y,+z |
|   {-3^+_xxx|(0.0,0.0,0.0)}     |  -z,-x,-y |
|    {m_x0z|(0.0,0.0,0.0)}       |  +x,-y,+z |
| {-3^+_x-x-x|(0.0,0.0,0.0)}     |  +z,+x,-y |
| {-3^+_-xx-x|(0.0,0.0,0.0)}     |  -z,+x,+y |
| {-3^+_-x-xx|(0.0,0.0,0.0)}     |  +z,-x,+y |
|  {-3^-_xxx|(0.0,0.0,0.0)}      |  -y,-z,-x |
| {-3^-_-x-xx|(0.0,0.0,0.0)}     |  -y,+z,+x |
| {-3^-_x-x-x|(0.0,0.0,0.0)}     |  +y,-z,+x |
| {-3^-_-xx-x|(0.0,0.0,0.0)}     |  +y,+z,-y |
+--------------------------------+----------+
..................

**********************
space group: 201:1 {'Hall': ' P 2 2 3 -1n', 'HM': 'P n -3:1'}
Crystal system: Cubic
Setting: 1
+x,+y,+z
-x,-y,+z
+x,-y,-z
+z,+x,+y
-x+1/2,-y+1/2,-z+1/2
..................
+------------------------+--------------------+
|         Seitz          |       Jones        |
+------------------------+--------------------+
|     {1|(0.0,0.0,0.0)}  |     +x,+y,+z       |
|    {2_00z|(0.0,0.0,0.0)}|     -x,-y,+z       |
|    {2_x00|(0.0,0.0,0.0)}|     +x,-y,-z       |
|   {3^+_xxx|(0.0,0.0,0.0)}|     +z,+x,+y       |
|     {-1|(0.5,0.5,0.5)}  | -x+1/2,-y+1/2,-z+1/2 |
|    {2_0y0|(0.0,0.0,0.0)}|     -x,+y,-z       |
|  {3^+_x-x-x|(0.0,0.0,0.0)}|     -z,-x,+y       |
|    {m_xy0|(0.5,0.5,0.5)}| +x+1/2,+y+1/2,-z+1/2 |
|  {3^+_-xx-x|(0.0,0.0,0.0)}|     +z,-x,-y       |
|    {m_0yz|(0.5,0.5,0.5)}| -x+1/2,+y+1/2,+z+1/2 |
|  {3^+_-x-xx|(0.0,0.0,0.0)}|     -z,+x,-y       |
|    {m_x0z|(0.5,0.5,0.5)}| +x+1/2,-y+1/2,+z+1/2 |
+------------------------+--------------------+
..................

**********************
space group: 201:2 {'Hall': '-P 2ab 2bc 3', 'HM': 'P n -3:2'}
Crystal system: Cubic
```

Setting: 2
+x,+y,+z
−x+1/2,−y+1/2,+z
+x,−y+1/2,−z+1/2
+z,+x,+y
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.5,0.5,0.0)}	−x+1/2,−y+1/2,+z
{2_x00|(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_0y0|(0.5,0.0,0.5)}	−x+1/2,+y,−z+1/2
{3^+_x−x−x|(0.5,0.5,0.0)}	−z+1/2,−x+1/2,+y
{3^+_−xx−x|(0.0,0.5,0.5)}	+z,−x+1/2,−y+1/2
{3^+_−x−xx|(0.5,0.0,0.5)}	−z+1/2,+x,−y+1/2
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{3^−_−x−xx|(0.0,0.5,0.5)}	+y,−z+1/2,−x+1/2
{3^−_x−x−x|(0.5,0.0,0.5)}	−y+1/2,+z,−x+1/2
{3^−_−xx−x|(0.5,0.5,0.0)}	−y+1/2,−z+1/2,+x
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,−z
{m_0yz|(0.0,0.5,0.5)}	−x,+y+1/2,+z+1/2
{−3^+_xxx|(0.0,0.0,0.0)}	−z,−x,−y
{m_x0z|(0.5,0.0,0.5)}	+x+1/2,−y,+z+1/2
{−3^+_x−x−x|(0.5,0.5,0.0)}	+z+1/2,+x+1/2,−y
{−3^+_−xx−x|(0.0,0.5,0.5)}	−z,+x+1/2,+y+1/2
{−3^+_−x−xx|(0.5,0.0,0.5)}	+z+1/2,−x,+y+1/2
{−3^−_xxx|(0.0,0.0,0.0)}	−y,−z,−x
{−3^−_−x−xx|(0.0,0.5,0.5)}	−y,+z+1/2,+x+1/2
{−3^−_x−x−x|(0.5,0.0,0.5)}	+y+1/2,−z,+x+1/2
{−3^−_−xx−x|(0.5,0.5,0.0)}	+y+1/2,+z+1/2,−x

....

****
space group: 202 {'Hall': '−F 2 2 3', 'HM': 'F m −3'}
Crystal system: Cubic
+x,+y,+z
−x,−y,+z
+x,−y,−z
+z,+x,+y
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z
{3^+_x−x−x|(0.0,0.0,0.0)}	−z,−x,+y
{3^+_−xx−x|(0.0,0.0,0.0)}	+z,−x,−y

{3^+_-x-xx|(0.0,0.0,0.0)}	−z,+x,−y	
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x	
{3^−_-x-xx|(0.0,0.0,0.0)}	+y,−z,−x	
{3^−_x-x-x|(0.0,0.0,0.0)}	−y,+z,−x	
{3^−_-xx-x|(0.0,0.0,0.0)}	−y,−z,+x	
{−1|(0.0,0.0,0.0)}	−x,−y,−z	
{m_xy0|(0.0,0.0,0.0)}	+x,+y,−z	
{m_0yz|(0.0,0.0,0.0)}	−x,+y,+z	
{−3^+_xxx|(0.0,0.0,0.0)}	−z,−x,−y	
{m_x0z|(0.0,0.0,0.0)}	+x,−y,+z	
{−3^+_x-x-x|(0.0,0.0,0.0)}	+z,+x,−y	
{−3^+_-xx-x|(0.0,0.0,0.0)}	−z,+x,+y	
{−3^+_-x-xx|(0.0,0.0,0.0)}	+z,−x,+y	
{−3^−_xxx|(0.0,0.0,0.0)}	−y,−z,−x	
{−3^−_-x-xx|(0.0,0.0,0.0)}	−y,+z,+x	
{−3^−_x-x-x|(0.0,0.0,0.0)}	+y,−z,+x	
{−3^−_-xx-x|(0.0,0.0,0.0)}	+y,+z,−x	
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2	
{2_00z|(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2	
{2_x00|(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2	
{3^+_xxx|(0.0,0.5,0.5)}	+z,+x+1/2,+y+1/2	
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2	
{3^+_x-x-x|(0.0,0.5,0.5)}	−z,−x+1/2,+y+1/2	
{3^+_-xx-x|(0.0,0.5,0.5)}	+z,−x+1/2,−y+1/2	
{3^+_-x-xx|(0.0,0.5,0.5)}	−z,+x+1/2,−y+1/2	
{3^−_xxx|(0.0,0.5,0.5)}	+y,+z+1/2,+x+1/2	
{3^−_-x-xx|(0.0,0.5,0.5)}	+y,−z+1/2,−x+1/2	
{3^−_x-x-x|(0.0,0.5,0.5)}	−y,+z+1/2,−x+1/2	
{3^−_-xx-x|(0.0,0.5,0.5)}	−y,−z+1/2,+x+1/2	
{−1|(0.0,0.5,0.5)}	−x,−y+1/2,−z+1/2	
{m_xy0|(0.0,0.5,0.5)}	+x,+y+1/2,−z+1/2	
{m_0yz|(0.0,0.5,0.5)}	−x,+y+1/2,+z+1/2	
{−3^+_xxx|(0.0,0.5,0.5)}	−z,−x+1/2,−y+1/2	
{m_x0z|(0.0,0.5,0.5)}	+x,−y+1/2,+z+1/2	
{−3^+_x-x-x|(0.0,0.5,0.5)}	+z,+x+1/2,−y+1/2	
{−3^+_-xx-x|(0.0,0.5,0.5)}	−z,+x+1/2,+y+1/2	
{−3^+_-x-xx|(0.0,0.5,0.5)}	+z,−x+1/2,+y+1/2	
{−3^−_xxx|(0.0,0.5,0.5)}	−y,−z+1/2,−x+1/2	
{−3^−_-x-xx|(0.0,0.5,0.5)}	−y,+z+1/2,+x+1/2	
{−3^−_x-x-x|(0.0,0.5,0.5)}	+y,−z+1/2,+x+1/2	
{−3^−_-xx-x|(0.0,0.5,0.5)}	+y,+z+1/2,−x+1/2	
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2	
{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2	
{2_x00|(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2	
{3^+_xxx|(0.5,0.0,0.5)}	+z+1/2,+x,+y+1/2	
{2_0y0|(0.5,0.0,0.5)}	−x+1/2,+y,−z+1/2	
{3^+_x-x-x|(0.5,0.0,0.5)}	−z+1/2,−x,+y+1/2	
{3^+_-xx-x|(0.5,0.0,0.5)}	+z+1/2,−x,−y+1/2	
{3^+_-x-xx|(0.5,0.0,0.5)}	−z+1/2,+x,−y+1/2	
{3^−_xxx|(0.5,0.0,0.5)}	+y+1/2,+z,+x+1/2	
{3^−_-x-xx|(0.5,0.0,0.5)}	+y+1/2,−z,−x+1/2	
{3^−_x-x-x|(0.5,0.0,0.5)}	−y+1/2,+z,−x+1/2	
{3^−_-xx-x|(0.5,0.0,0.5)}	−y+1/2,−z,+x+1/2	
{−1|(0.5,0.0,0.5)}	−x+1/2,−y,−z+1/2	

```
|    {m_xy0|(0.5,0.0,0.5)}   | +x+1/2,+y,-z+1/2 |
|    {m_0yz|(0.5,0.0,0.5)}   | -x+1/2,+y,+z+1/2 |
|  {-3^+_xxx|(0.5,0.0,0.5)}  | -z+1/2,-x,-y+1/2 |
|    {m_x0z|(0.5,0.0,0.5)}   | +x+1/2,-y,+z+1/2 |
| {-3^+_x-x-x|(0.5,0.0,0.5)} | +z+1/2,+x,-y+1/2 |
| {-3^+_-xx-x|(0.5,0.0,0.5)} | -z+1/2,+x,+y+1/2 |
| {-3^+_-x-xx|(0.5,0.0,0.5)} | +z+1/2,-x,+y+1/2 |
|  {-3^-_xxx|(0.5,0.0,0.5)}  | -y+1/2,-z,-x+1/2 |
| {-3^-_-x-xx|(0.5,0.0,0.5)} | -y+1/2,+z,+x+1/2 |
| {-3^-_x-x-x|(0.5,0.0,0.5)} | +y+1/2,-z,+x+1/2 |
| {-3^-_-xx-x|(0.5,0.0,0.5)} | +y+1/2,+z,-x+1/2 |
|      {1|(0.5,0.5,0.0)}     | +x+1/2,+y+1/2,+z |
|    {2_00z|(0.5,0.5,0.0)}   | -x+1/2,-y+1/2,+z |
|    {2_x00|(0.5,0.5,0.0)}   | +x+1/2,-y+1/2,-z |
|   {3^+_xxx|(0.5,0.5,0.0)}  | +z+1/2,+x+1/2,+y |
|    {2_0y0|(0.5,0.5,0.0)}   | -x+1/2,+y+1/2,-z |
| {3^+_x-x-x|(0.5,0.5,0.0)}  | -z+1/2,-x+1/2,+y |
| {3^+_-xx-x|(0.5,0.5,0.0)}  | +z+1/2,-x+1/2,-y |
| {3^+_-x-xx|(0.5,0.5,0.0)}  | -z+1/2,+x+1/2,-y |
|   {3^-_xxx|(0.5,0.5,0.0)}  | +y+1/2,+z+1/2,+x |
| {3^-_-x-xx|(0.5,0.5,0.0)}  | +y+1/2,-z+1/2,-x |
| {3^-_x-x-x|(0.5,0.5,0.0)}  | -y+1/2,+z+1/2,-x |
| {3^-_-xx-x|(0.5,0.5,0.0)}  | -y+1/2,-z+1/2,+x |
|     {-1|(0.5,0.5,0.0)}     | -x+1/2,-y+1/2,-z |
|   {m_xy0|(0.5,0.5,0.0)}    | +x+1/2,+y+1/2,-z |
|   {m_0yz|(0.5,0.5,0.0)}    | -x+1/2,+y+1/2,+z |
|  {-3^+_xxx|(0.5,0.5,0.0)}  | -z+1/2,-x+1/2,-y |
|   {m_x0z|(0.5,0.5,0.0)}    | +x+1/2,-y+1/2,+z |
| {-3^+_x-x-x|(0.5,0.5,0.0)} | +z+1/2,+x+1/2,-y |
| {-3^+_-xx-x|(0.5,0.5,0.0)} | -z+1/2,+x+1/2,+y |
| {-3^+_-x-xx|(0.5,0.5,0.0)} | +z+1/2,-x+1/2,+y |
|  {-3^-_xxx|(0.5,0.5,0.0)}  | -y+1/2,-z+1/2,-x |
| {-3^-_-x-xx|(0.5,0.5,0.0)} | -y+1/2,+z+1/2,+x |
| {-3^-_x-x-x|(0.5,0.5,0.0)} | +y+1/2,-z+1/2,+x |
| {-3^-_-xx-x|(0.5,0.5,0.0)} | +y+1/2,+z+1/2,-x |
+---------------------------+------------------+
```
....

```
*********************
space group: 203:1 {'Hall': ' F 2 2 3 -1d', 'HM': 'F d -3:1'}
Crystal system: Cubic
Setting: 1
+x,+y,+z
-x,-y,+z
+x,-y,-z
+z,+x,+y
-x+1/4,-y+1/4,-z+1/4
```
....

```
+-------------------------+---------------------+
|          Seitz          |        Jones        |
+-------------------------+---------------------+
|     {1|(0.0,0.0,0.0)}   |      +x,+y,+z        |
|   {2_00z|(0.0,0.0,0.0)} |      -x,-y,+z        |
|   {2_x00|(0.0,0.0,0.0)} |      +x,-y,-z        |
```

```
|   {3^+_xxx|(0.0,0.0,0.0)}   |      +z,+x,+y       |
|     {-1|(0.25,0.25,0.25)}    | -x+1/4,-y+1/4,-z+1/4 |
|     {2_0y0|(0.0,0.0,0.0)}    |      -x,+y,-z       |
| {3^+_x-x-x|(0.0,0.0,0.0)}   |      -z,-x,+y       |
|   {m_xy0|(0.75,0.75,0.25)}   | +x+3/4,+y+3/4,-z+1/4 |
| {3^+_-xx-x|(0.0,0.0,0.0)}   |      +z,-x,-y       |
|   {m_0yz|(0.25,0.75,0.75)}   | -x+1/4,+y+3/4,+z+3/4 |
| {3^+_-x-xx|(0.0,0.0,0.0)}   |      -z,+x,-y       |
|   {m_x0z|(0.75,0.25,0.75)}   | +x+3/4,-y+1/4,+z+3/4 |
|      {1|(0.0,0.5,0.5)}       |    +x,+y+1/2,+z+1/2  |
|    {2_00z|(0.0,0.5,0.5)}     |   -x,-y+1/2,+z+1/2  |
|    {2_x00|(0.0,0.5,0.5)}     |   +x,-y+1/2,-z+1/2  |
|   {3^+_xxx|(0.0,0.5,0.5)}    |   +z,+x+1/2,+y+1/2  |
|     {-1|(0.25,0.75,0.75)}    | -x+1/4,-y+3/4,-z+3/4 |
|     {2_0y0|(0.0,0.5,0.5)}     |   -x,+y+1/2,-z+1/2  |
| {3^+_x-x-x|(0.0,0.5,0.5)}   |   -z,-x+1/2,+y+1/2  |
|   {m_xy0|(0.75,0.25,0.75)}   | +x+3/4,+y+1/4,-z+3/4 |
| {3^+_-xx-x|(0.0,0.5,0.5)}   |   +z,-x+1/2,-y+1/2  |
|   {m_0yz|(0.25,0.25,0.25)}   | -x+1/4,+y+1/4,+z+1/4 |
| {3^+_-x-xx|(0.0,0.5,0.5)}   |   -z,+x+1/2,-y+1/2  |
|   {m_x0z|(0.75,0.75,0.25)}   | +x+3/4,-y+3/4,+z+1/4 |
|      {1|(0.5,0.0,0.5)}       |   +x+1/2,+y,+z+1/2  |
|    {2_00z|(0.5,0.0,0.5)}     |   -x+1/2,-y,+z+1/2  |
|    {2_x00|(0.5,0.0,0.5)}     |   +x+1/2,-y,-z+1/2  |
|   {3^+_xxx|(0.5,0.0,0.5)}    |   +z+1/2,+x,+y+1/2  |
|     {-1|(0.75,0.25,0.75)}    | -x+3/4,-y+1/4,-z+3/4 |
|     {2_0y0|(0.5,0.0,0.5)}     |   -x+1/2,+y,-z+1/2  |
| {3^+_x-x-x|(0.5,0.0,0.5)}   |   -z+1/2,-x,+y+1/2  |
|   {m_xy0|(0.25,0.75,0.75)}   | +x+1/4,+y+3/4,-z+3/4 |
| {3^+_-xx-x|(0.5,0.0,0.5)}   |   +z+1/2,-x,-y+1/2  |
|   {m_0yz|(0.75,0.75,0.25)}   | -x+3/4,+y+3/4,+z+1/4 |
| {3^+_-x-xx|(0.5,0.0,0.5)}   |   -z+1/2,+x,-y+1/2  |
|   {m_x0z|(0.25,0.25,0.25)}   | +x+1/4,-y+1/4,+z+1/4 |
|      {1|(0.5,0.5,0.0)}       |   +x+1/2,+y+1/2,+z  |
|    {2_00z|(0.5,0.5,0.0)}     |   -x+1/2,-y+1/2,+z  |
|    {2_x00|(0.5,0.5,0.0)}     |   +x+1/2,-y+1/2,-z  |
|   {3^+_xxx|(0.5,0.5,0.0)}    |   +z+1/2,+x+1/2,+y  |
|     {-1|(0.75,0.75,0.25)}    | -x+3/4,-y+3/4,-z+1/4 |
|     {2_0y0|(0.5,0.5,0.0)}     |   -x+1/2,+y+1/2,-z  |
| {3^+_x-x-x|(0.5,0.5,0.0)}   |   -z+1/2,-x+1/2,+y  |
|   {m_xy0|(0.25,0.25,0.25)}   | +x+1/4,+y+1/4,-z+1/4 |
| {3^+_-xx-x|(0.5,0.5,0.0)}   |   +z+1/2,-x+1/2,-y  |
|   {m_0yz|(0.75,0.25,0.75)}   | -x+3/4,+y+1/4,+z+3/4 |
| {3^+_-x-xx|(0.5,0.5,0.0)}   |   -z+1/2,+x+1/2,-y  |
|   {m_x0z|(0.25,0.75,0.75)}   | +x+1/4,-y+3/4,+z+3/4 |
+------------------------+--------------------+
..................

**********************
space group: 203:2 {'Hall': '-F 2uv 2vw 3', 'HM': 'F d -3:2'}
Crystal system: Cubic
Setting: 2
+x,+y,+z
-x+1/4,-y+1/4,+z
```

```
+x,−y+1/4,−z+1/4
+z,+x,+y
..................
+---------------------------+---------------------+
|           Seitz           |        Jones        |
+---------------------------+---------------------+
|       {1|(0.0,0.0,0.0)}       |      +x,+y,+z       |
|    {2_00z|(0.25,0.25,0.0)}    |   −x+1/4,−y+1/4,+z   |
|    {2_x00|(0.0,0.25,0.25)}    |   +x,−y+1/4,−z+1/4   |
|     {3^+_xxx|(0.0,0.0,0.0)}    |      +z,+x,+y       |
|    {2_0y0|(0.25,0.0,0.25)}    |   −x+1/4,+y,−z+1/4   |
|  {3^+_x−x−x|(0.25,0.25,0.0)}  |   −z+1/4,−x+1/4,+y   |
|  {3^+_−xx−x|(0.0,0.25,0.25)}  |   +z,−x+1/4,−y+1/4   |
|  {3^+_−x−xx|(0.25,0.0,0.25)}  |   −z+1/4,+x,−y+1/4   |
|     {3^−_xxx|(0.0,0.0,0.0)}    |      +y,+z,+x       |
|  {3^−_−x−xx|(0.0,0.25,0.25)}  |   +y,−z+1/4,−x+1/4   |
|  {3^−_x−x−x|(0.25,0.0,0.25)}  |   −y+1/4,+z,−x+1/4   |
|  {3^−_−xx−x|(0.25,0.25,0.0)}  |   −y+1/4,−z+1/4,+x   |
|       {−1|(0.0,0.0,0.0)}       |      −x,−y,−z       |
|    {m_xy0|(0.25,0.25,0.0)}    |   +x+1/4,+y+1/4,−z   |
|    {m_0yz|(0.0,0.25,0.25)}    |   −x,+y+1/4,+z+1/4   |
|    {−3^+_xxx|(0.0,0.0,0.0)}    |      −z,−x,−y       |
|    {m_x0z|(0.25,0.0,0.25)}    |   +x+1/4,−y,+z+1/4   |
| {−3^+_x−x−x|(0.25,0.25,0.0)} |   +z+1/4,+x+1/4,−y   |
| {−3^+_−xx−x|(0.0,0.25,0.25)} |   −z,+x+1/4,+y+1/4   |
| {−3^+_−x−xx|(0.25,0.0,0.25)} |   +z+1/4,−x,+y+1/4   |
|    {−3^−_xxx|(0.0,0.0,0.0)}    |      −y,−z,−x       |
| {−3^−_−x−xx|(0.0,0.25,0.25)} |   −y,+z+1/4,+x+1/4   |
| {−3^−_x−x−x|(0.25,0.0,0.25)} |   +y+1/4,−z,+x+1/4   |
| {−3^−_−xx−x|(0.25,0.25,0.0)} |   +y+1/4,+z+1/4,−x   |
|       {1|(0.0,0.5,0.5)}       |   +x,+y+1/2,+z+1/2   |
|    {2_00z|(0.25,0.75,0.5)}    | −x+1/4,−y+3/4,+z+1/2 |
|    {2_x00|(0.0,0.75,0.75)}    |   +x,−y+3/4,−z+3/4   |
|     {3^+_xxx|(0.0,0.5,0.5)}    |   +z,+x+1/2,+y+1/2   |
|    {2_0y0|(0.25,0.5,0.75)}    | −x+1/4,+y+1/2,−z+3/4 |
|  {3^+_x−x−x|(0.25,0.75,0.5)}  | −z+1/4,−x+3/4,+y+1/2 |
|  {3^+_−xx−x|(0.0,0.75,0.75)}  |   +z,−x+3/4,−y+3/4   |
|  {3^+_−x−xx|(0.25,0.5,0.75)}  | −z+1/4,+x+1/2,−y+3/4 |
|     {3^−_xxx|(0.0,0.5,0.5)}    |   +y,+z+1/2,+x+1/2   |
|  {3^−_−x−xx|(0.0,0.75,0.75)}  |   +y,−z+3/4,−x+3/4   |
|  {3^−_x−x−x|(0.25,0.5,0.75)}  | −y+1/4,+z+1/2,−x+3/4 |
|  {3^−_−xx−x|(0.25,0.75,0.5)}  | −y+1/4,−z+3/4,+x+1/2 |
|       {−1|(0.0,0.5,0.5)}       |   −x,−y+1/2,−z+1/2   |
|    {m_xy0|(0.25,0.75,0.5)}    | +x+1/4,+y+3/4,−z+1/2 |
|    {m_0yz|(0.0,0.75,0.75)}    |   −x,+y+3/4,+z+3/4   |
|    {−3^+_xxx|(0.0,0.5,0.5)}    |   −z,−x+1/2,−y+1/2   |
|    {m_x0z|(0.25,0.5,0.75)}    | +x+1/4,−y+1/2,+z+3/4 |
| {−3^+_x−x−x|(0.25,0.75,0.5)} | +z+1/4,+x+3/4,−y+1/2 |
| {−3^+_−xx−x|(0.0,0.75,0.75)} |   −z,+x+3/4,+y+3/4   |
| {−3^+_−x−xx|(0.25,0.5,0.75)} | +z+1/4,−x+1/2,+y+3/4 |
|    {−3^−_xxx|(0.0,0.5,0.5)}    |   −y,−z+1/2,−x+1/2   |
| {−3^−_−x−xx|(0.0,0.75,0.75)} |   −y,+z+3/4,+x+3/4   |
| {−3^−_x−x−x|(0.25,0.5,0.75)} | +y+1/4,−z+1/2,+x+3/4 |
| {−3^−_−xx−x|(0.25,0.75,0.5)} | +y+1/4,+z+3/4,−x+1/2 |
```

```
|        {1|(0.5,0.0,0.5)}        |     +x+1/2,+y,+z+1/2     |
|     {2_00z|(0.75,0.25,0.5)}     |  -x+3/4,-y+1/4,+z+1/2   |
|     {2_x00|(0.5,0.25,0.75)}     |  +x+1/2,-y+1/4,-z+3/4   |
|     {3^+_xxx|(0.5,0.0,0.5)}     |     +z+1/2,+x,+y+1/2     |
|     {2_0y0|(0.75,0.0,0.75)}     |     -x+3/4,+y,-z+3/4     |
|  {3^+_x-x-x|(0.75,0.25,0.5)}    |  -z+3/4,-x+1/4,+y+1/2   |
|  {3^+_-xx-x|(0.5,0.25,0.75)}    |  +z+1/2,-x+1/4,-y+3/4   |
|  {3^+_-x-xx|(0.75,0.0,0.75)}    |    -z+3/4,+x,-y+3/4     |
|     {3^-_xxx|(0.5,0.0,0.5)}     |     +y+1/2,+z,+x+1/2     |
|  {3^-_-x-xx|(0.5,0.25,0.75)}    |  +y+1/2,-z+1/4,-x+3/4   |
|  {3^-_x-x-x|(0.75,0.0,0.75)}    |    -y+3/4,+z,-x+3/4     |
|  {3^-_-xx-x|(0.75,0.25,0.5)}    |  -y+3/4,-z+1/4,+x+1/2   |
|        {-1|(0.5,0.0,0.5)}       |     -x+1/2,-y,-z+1/2     |
|     {m_xy0|(0.75,0.25,0.5)}     |  +x+3/4,+y+1/4,-z+1/2   |
|     {m_0yz|(0.5,0.25,0.75)}     |  -x+1/2,+y+1/4,+z+3/4   |
|    {-3^+_xxx|(0.5,0.0,0.5)}     |     -z+1/2,-x,-y+1/2     |
|     {m_x0z|(0.75,0.0,0.75)}     |     +x+3/4,-y,+z+3/4     |
|  {-3^+_x-x-x|(0.75,0.25,0.5)}   |  +z+3/4,+x+1/4,-y+1/2   |
|  {-3^+_-xx-x|(0.5,0.25,0.75)}   |  -z+1/2,+x+1/4,+y+3/4   |
|  {-3^+_-x-xx|(0.75,0.0,0.75)}   |    +z+3/4,-x,+y+3/4     |
|    {-3^-_xxx|(0.5,0.0,0.5)}     |     -y+1/2,-z,-x+1/2     |
|  {-3^-_-x-xx|(0.5,0.25,0.75)}   |  -y+1/2,+z+1/4,+x+3/4   |
|  {-3^-_x-x-x|(0.75,0.0,0.75)}   |    +y+3/4,-z,+x+3/4     |
|  {-3^-_-xx-x|(0.75,0.25,0.5)}   |  +y+3/4,+z+1/4,-x+1/2   |
|        {1|(0.5,0.5,0.0)}        |     +x+1/2,+y+1/2,+z     |
|     {2_00z|(0.75,0.75,0.0)}     |    -x+3/4,-y+3/4,+z     |
|     {2_x00|(0.5,0.75,0.25)}     |  +x+1/2,-y+3/4,-z+1/4   |
|     {3^+_xxx|(0.5,0.5,0.0)}     |     +z+1/2,+x+1/2,+y     |
|     {2_0y0|(0.75,0.5,0.25)}     |  -x+3/4,+y+1/2,-z+1/4   |
|  {3^+_x-x-x|(0.75,0.75,0.0)}    |    -z+3/4,-x+3/4,+y     |
|  {3^+_-xx-x|(0.5,0.75,0.25)}    |  +z+1/2,-x+3/4,-y+1/4   |
|  {3^+_-x-xx|(0.75,0.5,0.25)}    |  -z+3/4,+x+1/2,-y+1/4   |
|     {3^-_xxx|(0.5,0.5,0.0)}     |     +y+1/2,+z+1/2,+x     |
|  {3^-_-x-xx|(0.5,0.75,0.25)}    |  +y+1/2,-z+3/4,-x+1/4   |
|  {3^-_x-x-x|(0.75,0.5,0.25)}    |  -y+3/4,+z+1/2,-x+1/4   |
|  {3^-_-xx-x|(0.75,0.75,0.0)}    |    -y+3/4,-z+3/4,+x     |
|        {-1|(0.5,0.5,0.0)}       |     -x+1/2,-y+1/2,-z     |
|     {m_xy0|(0.75,0.75,0.0)}     |    +x+3/4,+y+3/4,-z     |
|     {m_0yz|(0.5,0.75,0.25)}     |  -x+1/2,+y+3/4,+z+1/4   |
|    {-3^+_xxx|(0.5,0.5,0.0)}     |     -z+1/2,-x+1/2,-y     |
|     {m_x0z|(0.75,0.5,0.25)}     |  +x+3/4,-y+1/2,+z+1/4   |
|  {-3^+_x-x-x|(0.75,0.75,0.0)}   |    +z+3/4,+x+3/4,-y     |
|  {-3^+_-xx-x|(0.5,0.75,0.25)}   |  -z+1/2,+x+3/4,+y+1/4   |
|  {-3^+_-x-xx|(0.75,0.5,0.25)}   |  +z+3/4,-x+1/2,+y+1/4   |
|    {-3^-_xxx|(0.5,0.5,0.0)}     |     -y+1/2,-z+1/2,-x     |
|  {-3^-_-x-xx|(0.5,0.75,0.25)}   |  -y+1/2,+z+3/4,+x+1/4   |
|  {-3^-_x-x-x|(0.75,0.5,0.25)}   |  +y+3/4,-z+1/2,+x+1/4   |
|  {-3^-_-xx-x|(0.75,0.75,0.0)}   |    +y+3/4,+z+3/4,-x     |
+---------------------------------+-------------------------+
..................

*********************
space group: 204 {'Hall': '-I 2 2 3', 'HM': 'I m -3'}
Crystal system: Cubic
```

```
+x,+y,+z
−x,−y,+z
+x,−y,−z
+z,+x,+y
..................
```

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z
{3^+_x−x−x|(0.0,0.0,0.0)}	−z,−x,+y
{3^+_−xx−x|(0.0,0.0,0.0)}	+z,−x,−y
{3^+_−x−xx|(0.0,0.0,0.0)}	−z,+x,−y
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{3^−_−x−xx|(0.0,0.0,0.0)}	+y,−z,−x
{3^−_x−x−x|(0.0,0.0,0.0)}	−y,+z,−x
{3^−_−xx−x|(0.0,0.0,0.0)}	−y,−z,+x
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{m_xy0|(0.0,0.0,0.0)}	+x,+y,−z
{m_0yz|(0.0,0.0,0.0)}	−x,+y,+z
{−3^+_xxx|(0.0,0.0,0.0)}	−z,−x,−y
{m_x0z|(0.0,0.0,0.0)}	+x,−y,+z
{−3^+_x−x−x|(0.0,0.0,0.0)}	+z,+x,−y
{−3^+_−xx−x|(0.0,0.0,0.0)}	−z,+x,+y
{−3^+_−x−xx|(0.0,0.0,0.0)}	+z,−x,+y
{−3^−_xxx|(0.0,0.0,0.0)}	−y,−z,−x
{−3^−_−x−xx|(0.0,0.0,0.0)}	−y,+z,+x
{−3^−_x−x−x|(0.0,0.0,0.0)}	+y,−z,+x
{−3^−_−xx−x|(0.0,0.0,0.0)}	+y,+z,−x
{1|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2
{2_00z|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,+z+1/2
{2_x00|(0.5,0.5,0.5)}	+x+1/2,−y+1/2,−z+1/2
{3^+_xxx|(0.5,0.5,0.5)}	+z+1/2,+x+1/2,+y+1/2
{2_0y0|(0.5,0.5,0.5)}	−x+1/2,+y+1/2,−z+1/2
{3^+_x−x−x|(0.5,0.5,0.5)}	−z+1/2,−x+1/2,+y+1/2
{3^+_−xx−x|(0.5,0.5,0.5)}	+z+1/2,−x+1/2,−y+1/2
{3^+_−x−xx|(0.5,0.5,0.5)}	−z+1/2,+x+1/2,−y+1/2
{3^−_xxx|(0.5,0.5,0.5)}	+y+1/2,+z+1/2,+x+1/2
{3^−_−x−xx|(0.5,0.5,0.5)}	+y+1/2,−z+1/2,−x+1/2
{3^−_x−x−x|(0.5,0.5,0.5)}	−y+1/2,+z+1/2,−x+1/2
{3^−_−xx−x|(0.5,0.5,0.5)}	−y+1/2,−z+1/2,+x+1/2
{−1|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,−z+1/2
{m_xy0|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,−z+1/2
{m_0yz|(0.5,0.5,0.5)}	−x+1/2,+y+1/2,+z+1/2
{−3^+_xxx|(0.5,0.5,0.5)}	−z+1/2,−x+1/2,−y+1/2
{m_x0z|(0.5,0.5,0.5)}	+x+1/2,−y+1/2,+z+1/2
{−3^+_x−x−x|(0.5,0.5,0.5)}	+z+1/2,+x+1/2,−y+1/2
{−3^+_−xx−x|(0.5,0.5,0.5)}	−z+1/2,+x+1/2,+y+1/2
{−3^+_−x−xx|(0.5,0.5,0.5)}	+z+1/2,−x+1/2,+y+1/2
{−3^−_xxx|(0.5,0.5,0.5)}	−y+1/2,−z+1/2,−x+1/2
{−3^−_−x−xx|(0.5,0.5,0.5)}	−y+1/2,+z+1/2,+x+1/2

```
| {-3^-_x-x-x|(0.5,0.5,0.5)} | +y+1/2,-z+1/2,+x+1/2 |
| {-3^-_-xx-x|(0.5,0.5,0.5)} | +y+1/2,+z+1/2,-x+1/2 |
+---------------------------+---------------------+
.................

*********************
space group: 205 {'Hall': '-P 2ac 2ab 3', 'HM': 'P a -3'}
Crystal system: Cubic
+x,+y,+z
-x+1/2,-y,+z+1/2
+x+1/2,-y+1/2,-z
+z,+x,+y
.................
+---------------------------+------------------+
|           Seitz           |       Jones      |
+---------------------------+------------------+
|       {1|(0.0,0.0,0.0)}   |     +x,+y,+z     |
|    {2_00z|(0.5,0.0,0.5)}  | -x+1/2,-y,+z+1/2 |
|    {2_x00|(0.5,0.5,0.0)}  | +x+1/2,-y+1/2,-z |
|   {3^+_xxx|(0.0,0.0,0.0)} |     +z,+x,+y     |
|    {2_0y0|(0.0,0.5,0.5)}  | -x,+y+1/2,-z+1/2 |
| {3^+_x-x-x|(0.5,0.0,0.5)} | -z+1/2,-x,+y+1/2 |
| {3^+_-xx-x|(0.5,0.5,0.0)} | +z+1/2,-x+1/2,-y |
| {3^+_-x-xx|(0.0,0.5,0.5)} | -z,+x+1/2,-y+1/2 |
|   {3^-_xxx|(0.0,0.0,0.0)} |     +y,+z,+x     |
| {3^-_-x-xx|(0.5,0.5,0.0)} | +y+1/2,-z+1/2,-x |
| {3^-_x-x-x|(0.0,0.5,0.5)} | -y,+z+1/2,-x+1/2 |
| {3^-_-xx-x|(0.5,0.0,0.5)} | -y+1/2,-z,+x+1/2 |
|      {-1|(0.0,0.0,0.0)}   |     -x,-y,-z     |
|    {m_xy0|(0.5,0.0,0.5)}  | +x+1/2,+y,-z+1/2 |
|    {m_0yz|(0.5,0.5,0.0)}  | -x+1/2,+y+1/2,+z |
|  {-3^+_xxx|(0.0,0.0,0.0)} |     -z,-x,-y     |
|    {m_x0z|(0.0,0.5,0.5)}  | +x,-y+1/2,+z+1/2 |
| {-3^+_x-x-x|(0.5,0.0,0.5)} | +z+1/2,+x,-y+1/2 |
| {-3^+_-xx-x|(0.5,0.5,0.0)} | -z+1/2,+x+1/2,+y |
| {-3^+_-x-xx|(0.0,0.5,0.5)} | +z,-x+1/2,+y+1/2 |
|  {-3^-_xxx|(0.0,0.0,0.0)} |     -y,-z,-x     |
| {-3^-_-x-xx|(0.5,0.5,0.0)} | -y+1/2,+z+1/2,+x |
| {-3^-_x-x-x|(0.0,0.5,0.5)} | +y,-z+1/2,+x+1/2 |
| {-3^-_-xx-x|(0.5,0.0,0.5)} | +y+1/2,+z,-x+1/2 |
+---------------------------+------------------+
.................

*********************
space group: 206 {'Hall': '-I 2b 2c 3', 'HM': 'I a -3'}
Crystal system: Cubic
+x,+y,+z
-x,-y+1/2,+z
+x,-y,-z+1/2
+z,+x,+y
.................
+---------------------------+---------------------+
|           Seitz           |        Jones        |
+---------------------------+---------------------+
```

```
|      {1|(0.0,0.0,0.0)}      |        +x,+y,+z         |
|   {2_00z|(0.0,0.5,0.0)}     |      -x,-y+1/2,+z       |
|   {2_x00|(0.0,0.0,0.5)}     |      +x,-y,-z+1/2       |
|  {3^+_xxx|(0.0,0.0,0.0)}    |        +z,+x,+y         |
|   {2_0y0|(0.0,0.5,0.5)}     |     -x,+y+1/2,-z+1/2    |
| {3^+_x-x-x|(0.0,0.5,0.0)}   |      -z,-x+1/2,+y       |
| {3^+_-xx-x|(0.0,0.0,0.5)}   |      +z,-x,-y+1/2       |
| {3^+_-x-xx|(0.0,0.5,0.5)}   |    -z,+x+1/2,-y+1/2     |
|  {3^-_xxx|(0.0,0.0,0.0)}    |        +y,+z,+x         |
| {3^-_-x-xx|(0.0,0.0,0.5)}   |      +y,-z,-x+1/2       |
| {3^-_x-x-x|(0.5,0.0,0.0)}   |      -y+1/2,+z,-x       |
| {3^-_-xx-x|(0.5,0.0,0.5)}   |    -y+1/2,-z,+x+1/2     |
|     {-1|(0.0,0.0,0.0)}      |        -x,-y,-z         |
|   {m_xy0|(0.0,0.5,0.0)}     |      +x,+y+1/2,-z       |
|   {m_0yz|(0.0,0.0,0.5)}     |      -x,+y,+z+1/2       |
|  {-3^+_xxx|(0.0,0.0,0.0)}   |        -z,-x,-y         |
|   {m_x0z|(0.0,0.5,0.5)}     |     +x,-y+1/2,+z+1/2    |
| {-3^+_x-x-x|(0.0,0.5,0.0)}  |      +z,+x+1/2,-y       |
| {-3^+_-xx-x|(0.0,0.0,0.5)}  |      -z,+x,+y+1/2       |
| {-3^+_-x-xx|(0.0,0.5,0.5)}  |    +z,-x+1/2,+y+1/2     |
|  {-3^-_xxx|(0.0,0.0,0.0)}   |        -y,-z,-x         |
| {-3^-_-x-xx|(0.0,0.0,0.5)}  |      -y,+z,+x+1/2       |
| {-3^-_x-x-x|(0.5,0.0,0.0)}  |      +y+1/2,-z,+x       |
| {-3^-_-xx-x|(0.5,0.0,0.5)}  |    +y+1/2,+z,-x+1/2     |
|     {1|(0.5,0.5,0.5)}       |  +x+1/2,+y+1/2,+z+1/2   |
|   {2_00z|(0.5,0.0,0.5)}     |    -x+1/2,-y,+z+1/2     |
|   {2_x00|(0.5,0.5,0.0)}     |    +x+1/2,-y+1/2,-z     |
|  {3^+_xxx|(0.5,0.5,0.5)}    |  +z+1/2,+x+1/2,+y+1/2   |
|   {2_0y0|(0.5,0.0,0.0)}     |     -x+1/2,+y,-z        |
| {3^+_x-x-x|(0.5,0.0,0.5)}   |    -z+1/2,-x,+y+1/2     |
| {3^+_-xx-x|(0.5,0.5,0.0)}   |    +z+1/2,-x+1/2,-y     |
| {3^+_-x-xx|(0.5,0.0,0.0)}   |     -z+1/2,+x,-y        |
|  {3^-_xxx|(0.5,0.5,0.5)}    |  +y+1/2,+z+1/2,+x+1/2   |
| {3^-_-x-xx|(0.5,0.5,0.0)}   |    +y+1/2,-z+1/2,-x     |
| {3^-_x-x-x|(0.0,0.5,0.5)}   |    -y,+z+1/2,-x+1/2     |
| {3^-_-xx-x|(0.0,0.5,0.0)}   |     -y,-z+1/2,+x        |
|     {-1|(0.5,0.5,0.5)}      |  -x+1/2,-y+1/2,-z+1/2   |
|   {m_xy0|(0.5,0.0,0.5)}     |    +x+1/2,+y,-z+1/2     |
|   {m_0yz|(0.5,0.5,0.0)}     |    -x+1/2,+y+1/2,+z     |
|  {-3^+_xxx|(0.5,0.5,0.5)}   |  -z+1/2,-x+1/2,-y+1/2   |
|   {m_x0z|(0.5,0.0,0.0)}     |     +x+1/2,-y,+z        |
| {-3^+_x-x-x|(0.5,0.0,0.5)}  |    +z+1/2,+x,-y+1/2     |
| {-3^+_-xx-x|(0.5,0.5,0.0)}  |    -z+1/2,+x+1/2,+y     |
| {-3^+_-x-xx|(0.5,0.0,0.0)}  |     +z+1/2,-x,+y        |
|  {-3^-_xxx|(0.5,0.5,0.5)}   |  -y+1/2,-z+1/2,-x+1/2   |
| {-3^-_-x-xx|(0.5,0.5,0.0)}  |    -y+1/2,+z+1/2,+x     |
| {-3^-_x-x-x|(0.0,0.5,0.5)}  |    +y,-z+1/2,+x+1/2     |
| {-3^-_-xx-x|(0.0,0.5,0.0)}  |     +y,+z+1/2,-x        |
+----------------------------+------------------------+
..................

*********************
space group: 207 {'Hall': 'P 4 2 3', 'HM': 'P 4 3 2'}
Crystal system: Cubic
```

```
+x,+y,+z
-y,+x,+z
+x,-y,-z
+z,+x,+y
..................
+------------------------+----------+
|         Seitz          |  Jones   |
+------------------------+----------+
|      {1|(0.0,0.0,0.0)} | +x,+y,+z |
|   {4^+_00z|(0.0,0.0,0.0)} | -y,+x,+z |
|    {2_x00|(0.0,0.0,0.0)} | +x,-y,-z |
|   {3^+_xxx|(0.0,0.0,0.0)} | +z,+x,+y |
|     {2_00z|(0.0,0.0,0.0)} | -x,-y,+z |
|     {2_xx0|(0.0,0.0,0.0)} | +y,+x,-z |
|     {2_0yy|(0.0,0.0,0.0)} | -x,+z,+y |
|   {4^-_00z|(0.0,0.0,0.0)} | +y,-x,+z |
|     {2_0y0|(0.0,0.0,0.0)} | -x,+y,-z |
| {3^+_x-x-x|(0.0,0.0,0.0)} | -z,-x,+y |
|    {2_x-x0|(0.0,0.0,0.0)} | -y,-x,-z |
|   {4^+_x00|(0.0,0.0,0.0)} | +x,-z,+y |
| {3^+_-xx-x|(0.0,0.0,0.0)} | +z,-x,-y |
|    {2_0y-y|(0.0,0.0,0.0)} | -x,-z,-y |
| {3^+_-x-xx|(0.0,0.0,0.0)} | -z,+x,-y |
|   {4^-_x00|(0.0,0.0,0.0)} | +x,+z,-y |
|     {2_x0x|(0.0,0.0,0.0)} | +z,-y,+x |
|   {3^-_xxx|(0.0,0.0,0.0)} | +y,+z,+x |
|   {4^-_0y0|(0.0,0.0,0.0)} | -z,+y,+x |
|   {4^+_0y0|(0.0,0.0,0.0)} | +z,+y,-x |
| {3^-_-x-xx|(0.0,0.0,0.0)} | +y,-z,-x |
|    {2_-x0x|(0.0,0.0,0.0)} | -z,-y,-x |
| {3^-_x-x-x|(0.0,0.0,0.0)} | -y,+z,-x |
| {3^-_-xx-x|(0.0,0.0,0.0)} | -y,-z,+x |
+------------------------+----------+
..................

**********************
space group: 208 {'Hall': ' P 4n 2 3', 'HM': 'P 42 3 2'}
Crystal system: Cubic
+x,+y,+z
-y+1/2,+x+1/2,+z+1/2
+x,-y,-z
+z,+x,+y
..................
+------------------------+--------------------+
|         Seitz          |        Jones       |
+------------------------+--------------------+
|      {1|(0.0,0.0,0.0)} |      +x,+y,+z      |
|   {4^+_00z|(0.5,0.5,0.5)} | -y+1/2,+x+1/2,+z+1/2 |
|    {2_x00|(0.0,0.0,0.0)} |      +x,-y,-z      |
|   {3^+_xxx|(0.0,0.0,0.0)} |      +z,+x,+y      |
|     {2_00z|(0.0,0.0,0.0)} |      -x,-y,+z      |
|     {2_xx0|(0.5,0.5,0.5)} | +y+1/2,+x+1/2,-z+1/2 |
|     {2_0yy|(0.5,0.5,0.5)} | -x+1/2,+z+1/2,+y+1/2 |
|   {4^-_00z|(0.5,0.5,0.5)} | +y+1/2,-x+1/2,+z+1/2 |
```

```
|      {2_0y0|(0.0,0.0,0.0)}       |         −x,+y,−z          |
|  {3^+_x−x−x|(0.0,0.0,0.0)}       |         −z,−x,+y          |
|    {2_x−x0|(0.5,0.5,0.5)}        |  −y+1/2,−x+1/2,−z+1/2     |
|   {4^+_x00|(0.5,0.5,0.5)}        |  +x+1/2,−z+1/2,+y+1/2     |
|  {3^+_−xx−x|(0.0,0.0,0.0)}       |         +z,−x,−y          |
|    {2_0y−y|(0.5,0.5,0.5)}        |  −x+1/2,−z+1/2,−y+1/2     |
|  {3^+_−x−xx|(0.0,0.0,0.0)}       |         −z,+x,−y          |
|   {4^−_x00|(0.5,0.5,0.5)}        |  +x+1/2,+z+1/2,−y+1/2     |
|    {2_x0x|(0.5,0.5,0.5)}         |  +z+1/2,−y+1/2,+x+1/2     |
|   {3^−_xxx|(0.0,0.0,0.0)}        |         +y,+z,+x          |
|   {4^−_0y0|(0.5,0.5,0.5)}        |  −z+1/2,+y+1/2,+x+1/2     |
|   {4^+_0y0|(0.5,0.5,0.5)}        |  +z+1/2,+y+1/2,−x+1/2     |
|  {3^−_−x−xx|(0.0,0.0,0.0)}       |         +y,−z,−x          |
|   {2_−x0x|(0.5,0.5,0.5)}         |  −z+1/2,−y+1/2,−x+1/2     |
|  {3^−_x−x−x|(0.0,0.0,0.0)}       |         −y,+z,−x          |
|  {3^−_−xx−x|(0.0,0.0,0.0)}       |         −y,−z,+x          |
+─────────────────────────+──────────────────────+
```

....


```
**********************
space group: 209 {'Hall': 'F 4 2 3', 'HM': 'F 4 3 2'}
Crystal system: Cubic
+x,+y,+z
−y,+x,+z
+x,−y,−z
+z,+x,+y
```

....


```
+─────────────────────────+──────────────────+
|           Seitz          |       Jones      |
+─────────────────────────+──────────────────+
|       {1|(0.0,0.0,0.0)}       |      +x,+y,+z     |
|   {4^+_00z|(0.0,0.0,0.0)}      |      −y,+x,+z     |
|    {2_x00|(0.0,0.0,0.0)}       |      +x,−y,−z     |
|   {3^+_xxx|(0.0,0.0,0.0)}      |      +z,+x,+y     |
|    {2_00z|(0.0,0.0,0.0)}       |      −x,−y,+z     |
|    {2_xx0|(0.0,0.0,0.0)}       |      +y,+x,−z     |
|    {2_0yy|(0.0,0.0,0.0)}       |      −x,+z,+y     |
|   {4^−_00z|(0.0,0.0,0.0)}      |      +y,−x,+z     |
|    {2_0y0|(0.0,0.0,0.0)}       |      −x,+y,−z     |
|  {3^+_x−x−x|(0.0,0.0,0.0)}     |      −z,−x,+y     |
|    {2_x−x0|(0.0,0.0,0.0)}      |      −y,−x,−z     |
|   {4^+_x00|(0.0,0.0,0.0)}      |      +x,−z,+y     |
|  {3^+_−xx−x|(0.0,0.0,0.0)}     |      +z,−x,−y     |
|    {2_0y−y|(0.0,0.0,0.0)}      |      −x,−z,−y     |
|  {3^+_−x−xx|(0.0,0.0,0.0)}     |      −z,+x,−y     |
|   {4^−_x00|(0.0,0.0,0.0)}      |      +x,+z,−y     |
|    {2_x0x|(0.0,0.0,0.0)}       |      +z,−y,+x     |
|   {3^−_xxx|(0.0,0.0,0.0)}      |      +y,+z,+x     |
|   {4^−_0y0|(0.0,0.0,0.0)}      |      −z,+y,+x     |
|   {4^+_0y0|(0.0,0.0,0.0)}      |      +z,+y,−x     |
|  {3^−_−x−xx|(0.0,0.0,0.0)}     |      +y,−z,−x     |
|   {2_−x0x|(0.0,0.0,0.0)}       |      −z,−y,−x     |
|  {3^−_x−x−x|(0.0,0.0,0.0)}     |      −y,+z,−x     |
|  {3^−_−xx−x|(0.0,0.0,0.0)}     |      −y,−z,+x     |
```

{1	(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{4^+_00z	(0.0,0.5,0.5)}	−y,+x+1/2,+z+1/2
{2_x00	(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2
{3^+_xxx	(0.0,0.5,0.5)}	+z,+x+1/2,+y+1/2
{2_00z	(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2
{2_xx0	(0.0,0.5,0.5)}	+y,+x+1/2,−z+1/2
{2_0yy	(0.0,0.5,0.5)}	−x,+z+1/2,+y+1/2
{4^−_00z	(0.0,0.5,0.5)}	+y,−x+1/2,+z+1/2
{2_0y0	(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2
{3^+_x−x−x	(0.0,0.5,0.5)}	−z,−x+1/2,+y+1/2
{2_x−x0	(0.0,0.5,0.5)}	−y,−x+1/2,−z+1/2
{4^+_x00	(0.0,0.5,0.5)}	+x,−z+1/2,+y+1/2
{3^+_−xx−x	(0.0,0.5,0.5)}	+z,−x+1/2,−y+1/2
{2_0y−y	(0.0,0.5,0.5)}	−x,−z+1/2,−y+1/2
{3^+_−x−xx	(0.0,0.5,0.5)}	−z,+x+1/2,−y+1/2
{4^−_x00	(0.0,0.5,0.5)}	+x,+z+1/2,−y+1/2
{2_x0x	(0.0,0.5,0.5)}	+z,−y+1/2,+x+1/2
{3^−_xxx	(0.0,0.5,0.5)}	+y,+z+1/2,+x+1/2
{4^−_0y0	(0.0,0.5,0.5)}	−z,+y+1/2,+x+1/2
{4^+_0y0	(0.0,0.5,0.5)}	+z,+y+1/2,−x+1/2
{3^−_−x−xx	(0.0,0.5,0.5)}	+y,−z+1/2,−x+1/2
{2_−x0x	(0.0,0.5,0.5)}	−z,−y+1/2,−x+1/2
{3^−_x−x−x	(0.0,0.5,0.5)}	−y,+z+1/2,−x+1/2
{3^−_−xx−x	(0.0,0.5,0.5)}	−y,−z+1/2,+x+1/2
{1	(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{4^+_00z	(0.5,0.0,0.5)}	−y+1/2,+x,+z+1/2
{2_x00	(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{3^+_xxx	(0.5,0.0,0.5)}	+z+1/2,+x,+y+1/2
{2_00z	(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{2_xx0	(0.5,0.0,0.5)}	+y+1/2,+x,−z+1/2
{2_0yy	(0.5,0.0,0.5)}	−x+1/2,+z,+y+1/2
{4^−_00z	(0.5,0.0,0.5)}	+y+1/2,−x,+z+1/2
{2_0y0	(0.5,0.0,0.5)}	−x+1/2,+y,−z+1/2
{3^+_x−x−x	(0.5,0.0,0.5)}	−z+1/2,−x,+y+1/2
{2_x−x0	(0.5,0.0,0.5)}	−y+1/2,−x,−z+1/2
{4^+_x00	(0.5,0.0,0.5)}	+x+1/2,−z,+y+1/2
{3^+_−xx−x	(0.5,0.0,0.5)}	+z+1/2,−x,−y+1/2
{2_0y−y	(0.5,0.0,0.5)}	−x+1/2,−z,−y+1/2
{3^+_−x−xx	(0.5,0.0,0.5)}	−z+1/2,+x,−y+1/2
{4^−_x00	(0.5,0.0,0.5)}	+x+1/2,+z,−y+1/2
{2_x0x	(0.5,0.0,0.5)}	+z+1/2,−y,+x+1/2
{3^−_xxx	(0.5,0.0,0.5)}	+y+1/2,+z,+x+1/2
{4^−_0y0	(0.5,0.0,0.5)}	−z+1/2,+y,+x+1/2
{4^+_0y0	(0.5,0.0,0.5)}	+z+1/2,+y,−x+1/2
{3^−_−x−xx	(0.5,0.0,0.5)}	+y+1/2,−z,−x+1/2
{2_−x0x	(0.5,0.0,0.5)}	−z+1/2,−y,−x+1/2
{3^−_x−x−x	(0.5,0.0,0.5)}	−y+1/2,+z,−x+1/2
{3^−_−xx−x	(0.5,0.0,0.5)}	−y+1/2,−z,+x+1/2
{1	(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z
{4^+_00z	(0.5,0.5,0.0)}	−y+1/2,+x+1/2,+z
{2_x00	(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{3^+_xxx	(0.5,0.5,0.0)}	+z+1/2,+x+1/2,+y
{2_00z	(0.5,0.5,0.0)}	−x+1/2,−y+1/2,+z
{2_xx0	(0.5,0.5,0.0)}	+y+1/2,+x+1/2,−z

Seitz	Jones
{2_0yy|(0.5,0.5,0.0)}	−x+1/2,+z+1/2,+y
{4^−_00z|(0.5,0.5,0.0)}	+y+1/2,−x+1/2,+z
{2_0y0|(0.5,0.5,0.0)}	−x+1/2,+y+1/2,−z
{3^+_x−x−x|(0.5,0.5,0.0)}	−z+1/2,−x+1/2,+y
{2_x−x0|(0.5,0.5,0.0)}	−y+1/2,−x+1/2,−z
{4^+_x00|(0.5,0.5,0.0)}	+x+1/2,−z+1/2,+y
{3^+_−xx−x|(0.5,0.5,0.0)}	+z+1/2,−x+1/2,−y
{2_0y−y|(0.5,0.5,0.0)}	−x+1/2,−z+1/2,−y
{3^+_−x−xx|(0.5,0.5,0.0)}	−z+1/2,+x+1/2,−y
{4^−_x00|(0.5,0.5,0.0)}	+x+1/2,+z+1/2,−y
{2_x0x|(0.5,0.5,0.0)}	+z+1/2,−y+1/2,+x
{3^−_xxx|(0.5,0.5,0.0)}	+y+1/2,+z+1/2,+x
{4^−_0y0|(0.5,0.5,0.0)}	−z+1/2,+y+1/2,+x
{4^+_0y0|(0.5,0.5,0.0)}	+z+1/2,+y+1/2,−x
{3^−_−x−xx|(0.5,0.5,0.0)}	+y+1/2,−z+1/2,−x
{2_−x0x|(0.5,0.5,0.0)}	−z+1/2,−y+1/2,−x
{3^−_x−x−x|(0.5,0.5,0.0)}	−y+1/2,+z+1/2,−x
{3^−_−xx−x|(0.5,0.5,0.0)}	−y+1/2,−z+1/2,+x

....

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space group: 210 {'Hall': ' F 4d 2 3', 'HM': 'F 41 3 2'}
Crystal system: Cubic
+x,+y,+z
−y+1/4,+x+1/4,+z+1/4
+x,−y,−z
+z,+x,+y

....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.25,0.25,0.25)}	−y+1/4,+x+1/4,+z+1/4
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_00z|(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2
{2_xx0|(0.25,0.25,0.25)}	+y+1/4,+x+1/4,−z+1/4
{2_0yy|(0.25,0.25,0.25)}	−x+1/4,+z+1/4,+y+1/4
{4^−_00z|(0.75,0.25,0.75)}	+y+3/4,−x+1/4,+z+3/4
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2
{3^+_x−x−x|(0.0,0.5,0.5)}	−z,−x+1/2,+y+1/2
{2_x−x0|(0.75,0.25,0.75)}	−y+3/4,−x+1/4,−z+3/4
{4^+_x00|(0.75,0.25,0.75)}	+x+3/4,−z+1/4,+y+3/4
{3^+_−xx−x|(0.0,0.0,0.0)}	+z,−x,−y
{2_0y−y|(0.25,0.75,0.75)}	−x+1/4,−z+3/4,−y+3/4
{3^+_−x−xx|(0.0,0.5,0.5)}	−z,+x+1/2,−y+1/2
{4^−_x00|(0.75,0.75,0.25)}	+x+3/4,+z+3/4,−y+1/4
{2_x0x|(0.25,0.25,0.25)}	+z+1/4,−y+1/4,+x+1/4
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{4^−_0y0|(0.25,0.25,0.25)}	−z+1/4,+y+1/4,+x+1/4
{4^+_0y0|(0.75,0.75,0.25)}	+z+3/4,+y+3/4,−x+1/4
{3^−_−x−xx|(0.5,0.0,0.5)}	+y+1/2,−z,−x+1/2
{2_−x0x|(0.75,0.75,0.25)}	−z+3/4,−y+3/4,−x+1/4

{3^−_x−x−x|(0.0,0.0,0.0)}	−y,+z,−x	
{3^−_−xx−x|(0.5,0.0,0.5)}	−y+1/2,−z,+x+1/2	
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2	
{4^+_00z|(0.25,0.75,0.75)}	−y+1/4,+x+3/4,+z+3/4	
{2_x00|(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2	
{3^+_xxx|(0.0,0.5,0.5)}	+z,+x+1/2,+y+1/2	
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z	
{2_xx0|(0.25,0.75,0.75)}	+y+1/4,+x+3/4,−z+3/4	
{2_0yy|(0.25,0.75,0.75)}	−x+1/4,+z+3/4,+y+3/4	
{4^−_00z|(0.75,0.75,0.25)}	+y+3/4,−x+3/4,+z+1/4	
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z	
{3^+_x−x−x|(0.0,0.0,0.0)}	−z,−x,+y	
{2_x−0|(0.75,0.75,0.25)}	−y+3/4,−x+3/4,−z+1/4	
{4^+_x00|(0.75,0.75,0.25)}	+x+3/4,−z+3/4,+y+1/4	
{3^+_−xx−x|(0.0,0.5,0.5)}	+z,−x+1/2,−y+1/2	
{2_0y−y|(0.25,0.25,0.25)}	−x+1/4,−z+1/4,−y+1/4	
{3^+_−x−xx|(0.0,0.0,0.0)}	−z,+x,−y	
{4^−_x00|(0.75,0.25,0.75)}	+x+3/4,+z+1/4,−y+3/4	
{2_x0x|(0.25,0.75,0.75)}	+z+1/4,−y+3/4,+x+3/4	
{3^−_xxx|(0.0,0.5,0.5)}	+y,+z+1/2,+x+1/2	
{4^−_0y0|(0.25,0.75,0.75)}	−z+1/4,+y+3/4,+x+3/4	
{4^+_0y0|(0.75,0.25,0.75)}	+z+3/4,+y+1/4,−x+3/4	
{3^−_−x−xx|(0.5,0.5,0.0)}	+y+1/2,−z+1/2,−x	
{2_−x0x|(0.75,0.25,0.75)}	−z+3/4,−y+1/4,−x+3/4	
{3^−_x−x−x|(0.0,0.5,0.5)}	−y,+z+1/2,−x+1/2	
{3^−_−xx−x|(0.5,0.5,0.0)}	−y+1/2,−z+1/2,+x	
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2	
{4^+_00z|(0.75,0.25,0.75)}	−y+3/4,+x+1/4,+z+3/4	
{2_x00|(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2	
{3^+_xxx|(0.5,0.0,0.5)}	+z+1/2,+x,+y+1/2	
{2_00z|(0.5,0.5,0.0)}	−x+1/2,−y+1/2,+z	
{2_xx0|(0.75,0.25,0.75)}	+y+3/4,+x+1/4,−z+3/4	
{2_0yy|(0.75,0.25,0.75)}	−x+3/4,+z+1/4,+y+3/4	
{4^−_00z|(0.25,0.25,0.25)}	+y+1/4,−x+1/4,+z+1/4	
{2_0y0|(0.5,0.5,0.0)}	−x+1/2,+y+1/2,−z	
{3^+_x−x−x|(0.5,0.5,0.0)}	−z+1/2,−x+1/2,+y	
{2_x−0|(0.25,0.25,0.25)}	−y+1/4,−x+1/4,−z+1/4	
{4^+_x00|(0.25,0.25,0.25)}	+x+1/4,−z+1/4,+y+1/4	
{3^+_−xx−x|(0.5,0.0,0.5)}	+z+1/2,−x,−y+1/2	
{2_0y−y|(0.75,0.75,0.25)}	−x+3/4,−z+3/4,−y+1/4	
{3^+_−x−xx|(0.5,0.5,0.0)}	−z+1/2,+x+1/2,−y	
{4^−_x00|(0.25,0.75,0.75)}	+x+1/4,+z+3/4,−y+3/4	
{2_x0x|(0.75,0.25,0.75)}	+z+3/4,−y+1/4,+x+3/4	
{3^−_xxx|(0.5,0.0,0.5)}	+y+1/2,+z,+x+1/2	
{4^−_0y0|(0.75,0.25,0.75)}	−z+3/4,+y+1/4,+x+3/4	
{4^+_0y0|(0.25,0.75,0.75)}	+z+1/4,+y+3/4,−x+3/4	
{3^−_−x−xx|(0.0,0.0,0.0)}	+y,−z,−x	
{2_−x0x|(0.25,0.75,0.75)}	−z+1/4,−y+3/4,−x+3/4	
{3^−_x−x−x|(0.5,0.0,0.5)}	−y+1/2,+z,−x+1/2	
{3^−_−xx−x|(0.0,0.0,0.0)}	−y,−z,+x	
{1|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z	
{4^+_00z|(0.75,0.75,0.25)}	−y+3/4,+x+3/4,+z+1/4	
{2_x00|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z	
{3^+_xxx|(0.5,0.5,0.0)}	+z+1/2,+x+1/2,+y	

```
|     {2_00z|(0.5,0.0,0.5)}     |     −x+1/2,−y,+z+1/2     |
|   {2_xx0|(0.75,0.75,0.25)}    | +y+3/4,+x+3/4,−z+1/4 |
|   {2_0yy|(0.75,0.75,0.25)}    | −x+3/4,+z+3/4,+y+1/4 |
|  {4^−_00z|(0.25,0.75,0.75)}   | +y+1/4,−x+3/4,+z+3/4 |
|     {2_0y0|(0.5,0.0,0.5)}     |     −x+1/2,+y,−z+1/2     |
| {3^+_x−x−x|(0.5,0.0,0.5)}     |     −z+1/2,−x,+y+1/2     |
|   {2_x−0|(0.25,0.75,0.75)}    | −y+1/4,−x+3/4,−z+3/4 |
|  {4^+_x00|(0.25,0.75,0.75)}   | +x+1/4,−z+3/4,+y+3/4 |
|  {3^+_−xx−x|(0.5,0.5,0.0)}    |     +z+1/2,−x+1/2,−y     |
|   {2_0y−y|(0.75,0.25,0.75)}   | −x+3/4,−z+1/4,−y+3/4 |
|  {3^+_−x−xx|(0.5,0.0,0.5)}    |     −z+1/2,+x,−y+1/2     |
|  {4^−_x00|(0.25,0.25,0.25)}   | +x+1/4,+z+1/4,−y+1/4 |
|   {2_x0x|(0.75,0.75,0.25)}    | +z+3/4,−y+3/4,+x+1/4 |
|   {3^−_xxx|(0.5,0.5,0.0)}     |     +y+1/2,+z+1/2,+x     |
|  {4^−_0y0|(0.75,0.75,0.25)}   | −z+3/4,+y+3/4,+x+1/4 |
|  {4^+_0y0|(0.25,0.25,0.25)}   | +z+1/4,+y+1/4,−x+1/4 |
|  {3^−_−x−xx|(0.0,0.5,0.5)}    |     +y,−z+1/2,−x+1/2     |
|  {2_−x0x|(0.25,0.25,0.25)}    | −z+1/4,−y+1/4,−x+1/4 |
|  {3^−_x−x−x|(0.5,0.5,0.0)}    |     −y+1/2,+z+1/2,−x     |
|  {3^−_−xx−x|(0.0,0.5,0.5)}    |     −y,−z+1/2,+x+1/2     |
+─────────────────────────+────────────────────+
```

....

```
**********************
space group: 211 {'Hall': 'I 4 2 3', 'HM': 'I 4 3 2'}
Crystal system: Cubic
+x,+y,+z
−y,+x,+z
+x,−y,−z
+z,+x,+y
```

....

```
+─────────────────────────+────────────────────+
|           Seitz           |         Jones        |
+─────────────────────────+────────────────────+
|       {1|(0.0,0.0,0.0)}       |        +x,+y,+z       |
|   {4^+_00z|(0.0,0.0,0.0)}   |        −y,+x,+z       |
|    {2_x00|(0.0,0.0,0.0)}    |        +x,−y,−z       |
|   {3^+_xxx|(0.0,0.0,0.0)}   |        +z,+x,+y       |
|    {2_00z|(0.0,0.0,0.0)}    |        −x,−y,+z       |
|    {2_xx0|(0.0,0.0,0.0)}    |        +y,+x,−z       |
|    {2_0yy|(0.0,0.0,0.0)}    |        −x,+z,+y       |
|   {4^−_00z|(0.0,0.0,0.0)}   |        +y,−x,+z       |
|    {2_0y0|(0.0,0.0,0.0)}    |        −x,+y,−z       |
| {3^+_x−x−x|(0.0,0.0,0.0)}   |        −z,−x,+y       |
|    {2_x−0|(0.0,0.0,0.0)}    |        −y,−x,−z       |
|   {4^+_x00|(0.0,0.0,0.0)}   |        +x,−z,+y       |
| {3^+_−xx−x|(0.0,0.0,0.0)}   |        +z,−x,−y       |
|    {2_0y−y|(0.0,0.0,0.0)}   |        −x,−z,−y       |
| {3^+_−x−xx|(0.0,0.0,0.0)}   |        −z,+x,−y       |
|   {4^−_x00|(0.0,0.0,0.0)}   |        +x,+z,−y       |
|    {2_x0x|(0.0,0.0,0.0)}    |        +z,−y,+x       |
|   {3^−_xxx|(0.0,0.0,0.0)}   |        +y,+z,+x       |
|   {4^−_0y0|(0.0,0.0,0.0)}   |        −z,+y,+x       |
|   {4^+_0y0|(0.0,0.0,0.0)}   |        +z,+y,−x       |
```

```
| {3^-_-x-xx|(0.0,0.0,0.0)}  |       +y,-z,-x       |
|    {2_-x0x|(0.0,0.0,0.0)}  |       -z,-y,-x       |
| {3^-_x-x-x|(0.0,0.0,0.0)}  |       -y,+z,-x       |
| {3^-_-xx-x|(0.0,0.0,0.0)}  |       -y,-z,+x       |
|       {1|(0.5,0.5,0.5)}    | +x+1/2,+y+1/2,+z+1/2 |
|  {4^+_00z|(0.5,0.5,0.5)}   | -y+1/2,+x+1/2,+z+1/2 |
|    {2_x00|(0.5,0.5,0.5)}   | +x+1/2,-y+1/2,-z+1/2 |
|  {3^+_xxx|(0.5,0.5,0.5)}   | +z+1/2,+x+1/2,+y+1/2 |
|    {2_00z|(0.5,0.5,0.5)}   | -x+1/2,-y+1/2,+z+1/2 |
|    {2_xx0|(0.5,0.5,0.5)}   | +y+1/2,+x+1/2,-z+1/2 |
|    {2_0yy|(0.5,0.5,0.5)}   | -x+1/2,+z+1/2,+y+1/2 |
|  {4^-_00z|(0.5,0.5,0.5)}   | +y+1/2,-x+1/2,+z+1/2 |
|    {2_0y0|(0.5,0.5,0.5)}   | -x+1/2,+y+1/2,-z+1/2 |
| {3^+_x-x-x|(0.5,0.5,0.5)}  | -z+1/2,-x+1/2,+y+1/2 |
|   {2_x-x0|(0.5,0.5,0.5)}   | -y+1/2,-x+1/2,-z+1/2 |
|  {4^+_x00|(0.5,0.5,0.5)}   | +x+1/2,-z+1/2,+y+1/2 |
| {3^+_-xx-x|(0.5,0.5,0.5)}  | +z+1/2,-x+1/2,-y+1/2 |
|   {2_0y-y|(0.5,0.5,0.5)}   | -x+1/2,-z+1/2,-y+1/2 |
| {3^+_-x-xx|(0.5,0.5,0.5)}  | -z+1/2,+x+1/2,-y+1/2 |
|  {4^-_x00|(0.5,0.5,0.5)}   | +x+1/2,+z+1/2,-y+1/2 |
|    {2_x0x|(0.5,0.5,0.5)}   | +z+1/2,-y+1/2,+x+1/2 |
|  {3^-_xxx|(0.5,0.5,0.5)}   | +y+1/2,+z+1/2,+x+1/2 |
|  {4^-_0y0|(0.5,0.5,0.5)}   | -z+1/2,+y+1/2,+x+1/2 |
|  {4^+_0y0|(0.5,0.5,0.5)}   | +z+1/2,+y+1/2,-x+1/2 |
| {3^-_-x-xx|(0.5,0.5,0.5)}  | +y+1/2,-z+1/2,-x+1/2 |
|    {2_-x0x|(0.5,0.5,0.5)}  | -z+1/2,-y+1/2,-x+1/2 |
| {3^-_x-x-x|(0.5,0.5,0.5)}  | -y+1/2,+z+1/2,-x+1/2 |
| {3^-_-xx-x|(0.5,0.5,0.5)}  | -y+1/2,-z+1/2,+x+1/2 |
+---------------------------+----------------------+
.................

*********************
space group: 212 {'Hall': ' P 4acd 2ab 3', 'HM': 'P 43 3 2'}
Crystal system: Cubic
+x,+y,+z
-y+3/4,+x+1/4,+z+3/4
+x+1/2,-y+1/2,-z
+z,+x,+y
.................
+---------------------------+----------------------+
|           Seitz           |        Jones         |
+---------------------------+----------------------+
|       {1|(0.0,0.0,0.0)}   |       +x,+y,+z       |
| {4^+_00z|(0.75,0.25,0.75)} | -y+3/4,+x+1/4,+z+3/4 |
|    {2_x00|(0.5,0.5,0.0)}   |    +x+1/2,-y+1/2,-z   |
|  {3^+_xxx|(0.0,0.0,0.0)}   |       +z,+x,+y       |
|    {2_00z|(0.5,0.0,0.5)}   |    -x+1/2,-y,+z+1/2   |
|   {2_xx0|(0.25,0.75,0.75)} | +y+1/4,+x+3/4,-z+3/4 |
|   {2_0yy|(0.75,0.25,0.75)} | -x+3/4,+z+1/4,+y+3/4 |
| {4^-_00z|(0.75,0.75,0.25)} | +y+3/4,-x+3/4,+z+1/4 |
|    {2_0y0|(0.0,0.5,0.5)}   |    -x,+y+1/2,-z+1/2   |
| {3^+_x-x-x|(0.5,0.0,0.5)}  |    -z+1/2,-x,+y+1/2   |
|  {2_x-x0|(0.25,0.25,0.25)} | -y+1/4,-x+1/4,-z+1/4 |
|  {4^+_x00|(0.75,0.75,0.25)} | +x+3/4,-z+3/4,+y+1/4 |
```

```
| {3^+_-xx-x|(0.5,0.5,0.0)}   |    +z+1/2,-x+1/2,-y    |
| {2_0y-y|(0.25,0.25,0.25)}   | -x+1/4,-z+1/4,-y+1/4 |
| {3^+_-x-xx|(0.0,0.5,0.5)}   |     -z,+x+1/2,-y+1/2    |
| {4^-_x00|(0.25,0.75,0.25)}  | +x+1/4,+z+3/4,-y+1/4 |
|  {2_x0x|(0.75,0.75,0.25)}   | +z+3/4,-y+3/4,+x+1/4 |
|  {3^-_xxx|(0.0,0.0,0.0)}    |        +y,+z,+x        |
| {4^-_0y0|(0.75,0.25,0.75)}  | -z+3/4,+y+1/4,+x+3/4 |
| {4^+_0y0|(0.25,0.75,0.75)}  | +z+1/4,+y+3/4,-x+3/4 |
| {3^-_-x-xx|(0.5,0.5,0.0)}   |     +y+1/2,-z+1/2,-x    |
| {2_-x0x|(0.25,0.25,0.25)}   | -z+1/4,-y+1/4,-x+1/4 |
| {3^-_x-x-x|(0.0,0.5,0.5)}   |     -y,+z+1/2,-x+1/2    |
| {3^-_-xx-x|(0.5,0.0,0.5)}   |     -y+1/2,-z,+x+1/2    |
+---------------------------+--------------------+
```

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```
**********************
space group: 213 {'Hall': ' P 4bd 2ab 3', 'HM': 'P 41 3 2'}
Crystal system: Cubic
+x,+y,+z
-y+1/4,+x+3/4,+z+1/4
+x+1/2,-y+1/2,-z
+z,+x,+y
```

....

```
+---------------------------+--------------------+
|          Seitz            |       Jones        |
+---------------------------+--------------------+
|     {1|(0.0,0.0,0.0)}     |      +x,+y,+z       |
| {4^+_00z|(0.25,0.75,0.25)}| -y+1/4,+x+3/4,+z+1/4 |
|    {2_x00|(0.5,0.5,0.0)}   |    +x+1/2,-y+1/2,-z   |
|  {3^+_xxx|(0.0,0.0,0.0)}   |       +z,+x,+y       |
|    {2_00z|(0.5,0.0,0.5)}   |    -x+1/2,-y,+z+1/2   |
|  {2_xx0|(0.75,0.25,0.25)}  | +y+3/4,+x+1/4,-z+1/4 |
|  {2_0yy|(0.25,0.75,0.25)}  | -x+1/4,+z+3/4,+y+1/4 |
| {4^-_00z|(0.25,0.25,0.75)} | +y+1/4,-x+1/4,+z+3/4 |
|    {2_0y0|(0.0,0.5,0.5)}   |    -x,+y+1/2,-z+1/2   |
| {3^+_x-x-x|(0.5,0.0,0.5)}  |     -z+1/2,-x,+y+1/2    |
|  {2_x-x0|(0.75,0.75,0.75)} | -y+3/4,-x+3/4,-z+3/4 |
| {4^+_x00|(0.25,0.25,0.75)} | +x+1/4,-z+1/4,+y+3/4 |
| {3^+_-xx-x|(0.5,0.5,0.0)}  |     +z+1/2,-x+1/2,-y    |
| {2_0y-y|(0.75,0.75,0.75)}  | -x+3/4,-z+3/4,-y+3/4 |
| {3^+_-x-xx|(0.0,0.5,0.5)}  |     -z,+x+1/2,-y+1/2    |
| {4^-_x00|(0.75,0.25,0.25)} | +x+3/4,+z+1/4,-y+1/4 |
|  {2_x0x|(0.25,0.25,0.75)}  | +z+1/4,-y+1/4,+x+3/4 |
|  {3^-_xxx|(0.0,0.0,0.0)}   |       +y,+z,+x       |
| {4^-_0y0|(0.25,0.75,0.25)} | -z+1/4,+y+3/4,+x+1/4 |
| {4^+_0y0|(0.75,0.25,0.25)} | +z+3/4,+y+1/4,-x+1/4 |
| {3^-_-x-xx|(0.5,0.5,0.0)}  |     +y+1/2,-z+1/2,-x    |
| {2_-x0x|(0.75,0.75,0.75)}  | -z+3/4,-y+3/4,-x+3/4 |
| {3^-_x-x-x|(0.0,0.5,0.5)}  |     -y,+z+1/2,-x+1/2    |
| {3^-_-xx-x|(0.5,0.0,0.5)}  |     -y+1/2,-z,+x+1/2    |
+---------------------------+--------------------+
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**********************
```

space group: 214 {'Hall': ' I 4bd 2c 3', 'HM': 'I 41 3 2'}
Crystal system: Cubic
+x,+y,+z
−y+1/4,+x+3/4,+z+1/4
+x,−y,−z+1/2
+z,+x,+y
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.25,0.75,0.25)}	−y+1/4,+x+3/4,+z+1/4
{2_x00|(0.0,0.0,0.5)}	+x,−y,−z+1/2
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{2_xx0|(0.25,0.75,0.75)}	+y+1/4,+x+3/4,−z+3/4
{2_0yy|(0.25,0.75,0.25)}	−x+1/4,+z+3/4,+y+1/4
{4^−_00z|(0.25,0.25,0.75)}	+y+1/4,−x+1/4,+z+3/4
{2_0y0|(0.5,0.0,0.0)}	−x+1/2,+y,−z
{3^+_x−x−x|(0.5,0.0,0.5)}	−z+1/2,−x,+y+1/2
{2_x−x0|(0.25,0.25,0.25)}	−y+1/4,−x+1/4,−z+1/4
{4^+_x00|(0.25,0.25,0.75)}	+x+1/4,−z+1/4,+y+3/4
{3^+_−xx−x|(0.0,0.0,0.5)}	+z,−x,−y+1/2
{2_0y−y|(0.25,0.25,0.25)}	−x+1/4,−z+1/4,−y+1/4
{3^+_−x−xx|(0.5,0.0,0.0)}	−z+1/2,+x,−y
{4^−_x00|(0.25,0.75,0.75)}	+x+1/4,+z+3/4,−y+3/4
{2_x0x|(0.25,0.25,0.75)}	+z+1/4,−y+1/4,+x+3/4
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{4^−_0y0|(0.75,0.25,0.75)}	−z+3/4,+y+1/4,+x+3/4
{4^+_0y0|(0.75,0.25,0.25)}	+z+3/4,+y+1/4,−x+1/4
{3^−_−x−xx|(0.5,0.5,0.0)}	+y+1/2,−z+1/2,−x
{2_−x0x|(0.25,0.25,0.25)}	−z+1/4,−y+1/4,−x+1/4
{3^−_x−x−x|(0.5,0.0,0.0)}	−y+1/2,+z,−x
{3^−_−xx−x|(0.0,0.5,0.0)}	−y,−z+1/2,+x
{1|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2
{4^+_00z|(0.75,0.25,0.75)}	−y+3/4,+x+1/4,+z+3/4
{2_x00|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{3^+_xxx|(0.5,0.5,0.5)}	+z+1/2,+x+1/2,+y+1/2
{2_00z|(0.0,0.5,0.0)}	−x,−y+1/2,+z
{2_xx0|(0.75,0.25,0.25)}	+y+3/4,+x+1/4,−z+1/4
{2_0yy|(0.75,0.25,0.75)}	−x+3/4,+z+1/4,+y+3/4
{4^−_00z|(0.75,0.75,0.25)}	+y+3/4,−x+3/4,+z+1/4
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2
{3^+_x−x−x|(0.0,0.5,0.0)}	−z,−x+1/2,+y
{2_x−x0|(0.75,0.75,0.75)}	−y+3/4,−x+3/4,−z+3/4
{4^+_x00|(0.75,0.75,0.25)}	+x+3/4,−z+3/4,+y+1/4
{3^+_−xx−x|(0.5,0.5,0.0)}	+z+1/2,−x+1/2,−y
{2_0y−y|(0.75,0.75,0.75)}	−x+3/4,−z+3/4,−y+3/4
{3^+_−x−xx|(0.0,0.5,0.5)}	−z,+x+1/2,−y+1/2
{4^−_x00|(0.75,0.25,0.25)}	+x+3/4,+z+1/4,−y+1/4
{2_x0x|(0.75,0.75,0.25)}	+z+3/4,−y+3/4,+x+1/4
{3^−_xxx|(0.5,0.5,0.5)}	+y+1/2,+z+1/2,+x+1/2
{4^−_0y0|(0.25,0.75,0.25)}	−z+1/4,+y+3/4,+x+1/4
{4^+_0y0|(0.25,0.75,0.75)}	+z+1/4,+y+3/4,−x+3/4

```
| {3^-_-x-xx|(0.0,0.0,0.5)}   |    +y,-z,-x+1/2     |
| {2_-x0x|(0.75,0.75,0.75)}   | -z+3/4,-y+3/4,-x+3/4 |
| {3^-_x-x-x|(0.0,0.5,0.5)}   |    -y,+z+1/2,-x+1/2  |
| {3^-_-xx-x|(0.5,0.0,0.5)}   |    -y+1/2,-z,+x+1/2  |
+----------------------------+---------------------+
```
....

```
**********************
space group: 215 {'Hall': ' P -4 2 3', 'HM': 'P -4 3 m'}
Crystal system: Cubic
+x,+y,+z
+y,-x,-z
+x,-y,-z
+z,+x,+y
```
....

```
+----------------------------+----------+
|           Seitz            |  Jones   |
+----------------------------+----------+
|      {1|(0.0,0.0,0.0)}     | +x,+y,+z |
|  {-4^+_00z|(0.0,0.0,0.0)}  | +y,-x,-z |
|   {2_x00|(0.0,0.0,0.0)}    | +x,-y,-z |
|  {3^+_xxx|(0.0,0.0,0.0)}   | +z,+x,+y |
|   {2_00z|(0.0,0.0,0.0)}    | -x,-y,+z |
|  {m_x-xz|(0.0,0.0,0.0)}    | -y,-x,+z |
|  {m_xy-y|(0.0,0.0,0.0)}    | +x,-z,-y |
|  {-4^-_00z|(0.0,0.0,0.0)}  | -y,+x,-z |
|   {2_0y0|(0.0,0.0,0.0)}    | -x,+y,-z |
| {3^+_x-x-x|(0.0,0.0,0.0)}  | -z,-x,+y |
|   {m_xxz|(0.0,0.0,0.0)}    | +y,+x,+z |
|  {-4^+_x00|(0.0,0.0,0.0)}  | -x,+z,-y |
| {3^+_-xx-x|(0.0,0.0,0.0)}  | +z,-x,-y |
|   {m_xyy|(0.0,0.0,0.0)}    | +x,+z,+y |
| {3^+_-x-xx|(0.0,0.0,0.0)}  | -z,+x,-y |
|  {-4^-_x00|(0.0,0.0,0.0)}  | -x,-z,+y |
|  {m_-xyz|(0.0,0.0,0.0)}    | -z,+y,-x |
|  {3^-_xxx|(0.0,0.0,0.0)}   | +y,+z,+x |
|  {-4^-_0y0|(0.0,0.0,0.0)}  | +z,-y,-x |
|  {-4^+_0y0|(0.0,0.0,0.0)}  | -z,-y,+x |
| {3^-_-x-xx|(0.0,0.0,0.0)}  | +y,-z,-x |
|   {m_xyx|(0.0,0.0,0.0)}    | +z,+y,+x |
| {3^-_x-x-x|(0.0,0.0,0.0)}  | -y,+z,-x |
| {3^-_-xx-x|(0.0,0.0,0.0)}  | -y,-z,+x |
+----------------------------+----------+
```
....

```
**********************
space group: 216 {'Hall': ' F -4 2 3', 'HM': 'F -4 3 m'}
Crystal system: Cubic
+x,+y,+z
+y,-x,-z
+x,-y,-z
+z,+x,+y
```
....

```
+----------------------------+-----------------+
```

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{-4^+_00z|(0.0,0.0,0.0)}	+y,−x,−z
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{m_x-xz|(0.0,0.0,0.0)}	−y,−x,+z
{m_xy-y|(0.0,0.0,0.0)}	+x,−z,−y
{-4^-_00z|(0.0,0.0,0.0)}	−y,+x,−z
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z
{3^+_x-x-x|(0.0,0.0,0.0)}	−z,−x,+y
{m_xxz|(0.0,0.0,0.0)}	+y,+x,+z
{-4^+_x00|(0.0,0.0,0.0)}	−x,+z,−y
{3^+_-xx-x|(0.0,0.0,0.0)}	+z,−x,−y
{m_xyy|(0.0,0.0,0.0)}	+x,+z,+y
{3^+_-x-xx|(0.0,0.0,0.0)}	−z,+x,−y
{-4^-_x00|(0.0,0.0,0.0)}	−x,−z,+y
{m_-xyz|(0.0,0.0,0.0)}	−z,+y,−x
{3^-_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{-4^-_0y0|(0.0,0.0,0.0)}	+z,−y,−x
{-4^+_0y0|(0.0,0.0,0.0)}	−z,−y,+x
{3^-_-x-xx|(0.0,0.0,0.0)}	+y,−z,−x
{m_xyx|(0.0,0.0,0.0)}	+z,+y,+x
{3^-_x-x-x|(0.0,0.0,0.0)}	−y,+z,−x
{3^-_-xx-x|(0.0,0.0,0.0)}	−y,−z,+x
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{-4^+_00z|(0.0,0.5,0.5)}	+y,−x+1/2,−z+1/2
{2_x00|(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2
{3^+_xxx|(0.0,0.5,0.5)}	+z,+x+1/2,+y+1/2
{2_00z|(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2
{m_x-xz|(0.0,0.5,0.5)}	−y,−x+1/2,+z+1/2
{m_xy-y|(0.0,0.5,0.5)}	+x,−z+1/2,−y+1/2
{-4^-_00z|(0.0,0.5,0.5)}	−y,+x+1/2,−z+1/2
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2
{3^+_x-x-x|(0.0,0.5,0.5)}	−z,−x+1/2,+y+1/2
{m_xxz|(0.0,0.5,0.5)}	+y,+x+1/2,+z+1/2
{-4^+_x00|(0.0,0.5,0.5)}	−x,+z+1/2,−y+1/2
{3^+_-xx-x|(0.0,0.5,0.5)}	+z,−x+1/2,−y+1/2
{m_xyy|(0.0,0.5,0.5)}	+x,+z+1/2,+y+1/2
{3^+_-x-xx|(0.0,0.5,0.5)}	−z,+x+1/2,−y+1/2
{-4^-_x00|(0.0,0.5,0.5)}	−x,−z+1/2,+y+1/2
{m_-xyz|(0.0,0.5,0.5)}	−z,+y+1/2,−x+1/2
{3^-_xxx|(0.0,0.5,0.5)}	+y,+z+1/2,+x+1/2
{-4^-_0y0|(0.0,0.5,0.5)}	+z,−y+1/2,−x+1/2
{-4^+_0y0|(0.0,0.5,0.5)}	−z,−y+1/2,+x+1/2
{3^-_-x-xx|(0.0,0.5,0.5)}	+y,−z+1/2,−x+1/2
{m_xyx|(0.0,0.5,0.5)}	+z,+y+1/2,+x+1/2
{3^-_x-x-x|(0.0,0.5,0.5)}	−y,+z+1/2,−x+1/2
{3^-_-xx-x|(0.0,0.5,0.5)}	−y,−z+1/2,+x+1/2
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{-4^+_00z|(0.5,0.0,0.5)}	+y+1/2,−x,−z+1/2
{2_x00|(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{3^+_xxx|(0.5,0.0,0.5)}	+z+1/2,+x,+y+1/2

{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{m_x-xz|(0.5,0.0,0.5)}	−y+1/2,−x,+z+1/2
{m_xy-y|(0.5,0.0,0.5)}	+x+1/2,−z,−y+1/2
{−4^-_00z|(0.5,0.0,0.5)}	−y+1/2,+x,−z+1/2
{2_0y0|(0.5,0.0,0.5)}	−x+1/2,+y,−z+1/2
{3^+_x-x-x|(0.5,0.0,0.5)}	−z+1/2,−x,+y+1/2
{m_xxz|(0.5,0.0,0.5)}	+y+1/2,+x,+z+1/2
{−4^+_x00|(0.5,0.0,0.5)}	−x+1/2,+z,−y+1/2
{3^+_-xx-x|(0.5,0.0,0.5)}	+z+1/2,−x,−y+1/2
{m_xyy|(0.5,0.0,0.5)}	+x+1/2,+z,+y+1/2
{3^+_-x-xx|(0.5,0.0,0.5)}	−z+1/2,+x,−y+1/2
{−4^-_x00|(0.5,0.0,0.5)}	−x+1/2,−z,+y+1/2
{m_-xyz|(0.5,0.0,0.5)}	−z+1/2,+y,−x+1/2
{3^-_xxx|(0.5,0.0,0.5)}	+y+1/2,+z,+x+1/2
{−4^-_0y0|(0.5,0.0,0.5)}	+z+1/2,−y,−x+1/2
{−4^+_0y0|(0.5,0.0,0.5)}	−z+1/2,−y,+x+1/2
{3^-_-x-xx|(0.5,0.0,0.5)}	+y+1/2,−z,−x+1/2
{m_xyx|(0.5,0.0,0.5)}	+z+1/2,+y,+x+1/2
{3^-_x-x-x|(0.5,0.0,0.5)}	−y+1/2,+z,−x+1/2
{3^-_-xx-x|(0.5,0.0,0.5)}	−y+1/2,−z,+x+1/2
{1|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z
{−4^+_00z|(0.5,0.5,0.0)}	+y+1/2,−x+1/2,−z
{2_x00|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{3^+_xxx|(0.5,0.5,0.0)}	+z+1/2,+x+1/2,+y
{2_00z|(0.5,0.5,0.0)}	−x+1/2,−y+1/2,+z
{m_x-xz|(0.5,0.5,0.0)}	−y+1/2,−x+1/2,+z
{m_xy-y|(0.5,0.5,0.0)}	+x+1/2,−z+1/2,−y
{−4^-_00z|(0.5,0.5,0.0)}	−y+1/2,+x+1/2,−z
{2_0y0|(0.5,0.5,0.0)}	−x+1/2,+y+1/2,−z
{3^+_x-x-x|(0.5,0.5,0.0)}	−z+1/2,−x+1/2,+y
{m_xxz|(0.5,0.5,0.0)}	+y+1/2,+x+1/2,+z
{−4^+_x00|(0.5,0.5,0.0)}	−x+1/2,+z+1/2,−y
{3^+_-xx-x|(0.5,0.5,0.0)}	+z+1/2,−x+1/2,−y
{m_xyy|(0.5,0.5,0.0)}	+x+1/2,+z+1/2,+y
{3^+_-x-xx|(0.5,0.5,0.0)}	−z+1/2,+x+1/2,−y
{−4^-_x00|(0.5,0.5,0.0)}	−x+1/2,−z+1/2,+y
{m_-xyz|(0.5,0.5,0.0)}	−z+1/2,+y+1/2,−x
{3^-_xxx|(0.5,0.5,0.0)}	+y+1/2,+z+1/2,+x
{−4^-_0y0|(0.5,0.5,0.0)}	+z+1/2,−y+1/2,−x
{−4^+_0y0|(0.5,0.5,0.0)}	−z+1/2,−y+1/2,+x
{3^-_-x-xx|(0.5,0.5,0.0)}	+y+1/2,−z+1/2,−x
{m_xyx|(0.5,0.5,0.0)}	+z+1/2,+y+1/2,+x
{3^-_x-x-x|(0.5,0.5,0.0)}	−y+1/2,+z+1/2,−x
{3^-_-xx-x|(0.5,0.5,0.0)}	−y+1/2,−z+1/2,+x
+------------------------+----------------+

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****
space group: 217 {'Hall': ' I −4 2 3', 'HM': 'I −4 3 m'}
Crystal system: Cubic
+x,+y,+z
+y,−x,−z
+x,−y,−z
+z,+x,+y

....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{-4^+_00z|(0.0,0.0,0.0)}	+y,-x,-z
{2_x00|(0.0,0.0,0.0)}	+x,-y,-z
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_00z|(0.0,0.0,0.0)}	-x,-y,+z
{m_x-xz|(0.0,0.0,0.0)}	-y,-x,+z
{m_xy-y|(0.0,0.0,0.0)}	+x,-z,-y
{-4^-_00z|(0.0,0.0,0.0)}	-y,+x,-z
{2_0y0|(0.0,0.0,0.0)}	-x,+y,-z
{3^+_x-x-x|(0.0,0.0,0.0)}	-z,-x,+y
{m_xxz|(0.0,0.0,0.0)}	+y,+x,+z
{-4^+_x00|(0.0,0.0,0.0)}	-x,+z,-y
{3^+_-xx-x|(0.0,0.0,0.0)}	+z,-x,-y
{m_xyy|(0.0,0.0,0.0)}	+x,+z,+y
{3^+_-x-xx|(0.0,0.0,0.0)}	-z,+x,-y
{-4^-_x00|(0.0,0.0,0.0)}	-x,-z,+y
{m_-xyz|(0.0,0.0,0.0)}	-z,+y,-x
{3^-_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{-4^-_0y0|(0.0,0.0,0.0)}	+z,-y,-x
{-4^+_0y0|(0.0,0.0,0.0)}	-z,-y,+x
{3^-_-x-xx|(0.0,0.0,0.0)}	+y,-z,-x
{m_xyx|(0.0,0.0,0.0)}	+z,+y,+x
{3^-_x-x-x|(0.0,0.0,0.0)}	-y,+z,-x
{3^-_-xx-x|(0.0,0.0,0.0)}	-y,-z,+x
{1|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2
{-4^+_00z|(0.5,0.5,0.5)}	+y+1/2,-x+1/2,-z+1/2
{2_x00|(0.5,0.5,0.5)}	+x+1/2,-y+1/2,-z+1/2
{3^+_xxx|(0.5,0.5,0.5)}	+z+1/2,+x+1/2,+y+1/2
{2_00z|(0.5,0.5,0.5)}	-x+1/2,-y+1/2,+z+1/2
{m_x-xz|(0.5,0.5,0.5)}	-y+1/2,-x+1/2,+z+1/2
{m_xy-y|(0.5,0.5,0.5)}	+x+1/2,-z+1/2,-y+1/2
{-4^-_00z|(0.5,0.5,0.5)}	-y+1/2,+x+1/2,-z+1/2
{2_0y0|(0.5,0.5,0.5)}	-x+1/2,+y+1/2,-z+1/2
{3^+_x-x-x|(0.5,0.5,0.5)}	-z+1/2,-x+1/2,+y+1/2
{m_xxz|(0.5,0.5,0.5)}	+y+1/2,+x+1/2,+z+1/2
{-4^+_x00|(0.5,0.5,0.5)}	-x+1/2,+z+1/2,-y+1/2
{3^+_-xx-x|(0.5,0.5,0.5)}	+z+1/2,-x+1/2,-y+1/2
{m_xyy|(0.5,0.5,0.5)}	+x+1/2,+z+1/2,+y+1/2
{3^+_-x-xx|(0.5,0.5,0.5)}	-z+1/2,+x+1/2,-y+1/2
{-4^-_x00|(0.5,0.5,0.5)}	-x+1/2,-z+1/2,+y+1/2
{m_-xyz|(0.5,0.5,0.5)}	-z+1/2,+y+1/2,-x+1/2
{3^-_xxx|(0.5,0.5,0.5)}	+y+1/2,+z+1/2,+x+1/2
{-4^-_0y0|(0.5,0.5,0.5)}	+z+1/2,-y+1/2,-x+1/2
{-4^+_0y0|(0.5,0.5,0.5)}	-z+1/2,-y+1/2,+x+1/2
{3^-_-x-xx|(0.5,0.5,0.5)}	+y+1/2,-z+1/2,-x+1/2
{m_xyx|(0.5,0.5,0.5)}	+z+1/2,+y+1/2,+x+1/2
{3^-_x-x-x|(0.5,0.5,0.5)}	-y+1/2,+z+1/2,-x+1/2
{3^-_-xx-x|(0.5,0.5,0.5)}	-y+1/2,-z+1/2,+x+1/2

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*********************
space group: 218 {'Hall': ' P -4n 2 3', 'HM': 'P -4 3 n'}
Crystal system: Cubic
+x,+y,+z
+y+1/2,-x+1/2,-z+1/2
+x,-y,-z
+z,+x,+y

..................
+------------------------+--------------------+
|         Seitz          |       Jones        |
+------------------------+--------------------+
|     {1|(0.0,0.0,0.0)}  |      +x,+y,+z       |
|  {-4^+_00z|(0.5,0.5,0.5)} | +y+1/2,-x+1/2,-z+1/2 |
|    {2_x00|(0.0,0.0,0.0)}  |      +x,-y,-z       |
|  {3^+_xxx|(0.0,0.0,0.0)}  |      +z,+x,+y       |
|    {2_00z|(0.0,0.0,0.0)}  |      -x,-y,+z       |
|   {m_x-xz|(0.5,0.5,0.5)}  | -y+1/2,-x+1/2,+z+1/2 |
|   {m_xy-y|(0.5,0.5,0.5)}  | +x+1/2,-z+1/2,-y+1/2 |
|  {-4^-_00z|(0.5,0.5,0.5)} | -y+1/2,+x+1/2,-z+1/2 |
|    {2_0y0|(0.0,0.0,0.0)}  |      -x,+y,-z       |
| {3^+_x-x-x|(0.0,0.0,0.0)} |      -z,-x,+y       |
|    {m_xxz|(0.5,0.5,0.5)}  | +y+1/2,+x+1/2,+z+1/2 |
|  {-4^+_x00|(0.5,0.5,0.5)} | -x+1/2,+z+1/2,-y+1/2 |
| {3^+_-xx-x|(0.0,0.0,0.0)} |      +z,-x,-y       |
|    {m_xyy|(0.5,0.5,0.5)}  | +x+1/2,+z+1/2,+y+1/2 |
| {3^+_-x-xx|(0.0,0.0,0.0)} |      -z,+x,-y       |
|  {-4^-_x00|(0.5,0.5,0.5)} | -x+1/2,-z+1/2,+y+1/2 |
|   {m_-xyz|(0.5,0.5,0.5)}  | -z+1/2,+y+1/2,-x+1/2 |
|  {3^-_xxx|(0.0,0.0,0.0)}  |      +y,+z,+x       |
|  {-4^-_0y0|(0.5,0.5,0.5)} | +z+1/2,-y+1/2,-x+1/2 |
|  {-4^+_0y0|(0.5,0.5,0.5)} | -z+1/2,-y+1/2,+x+1/2 |
| {3^-_-x-xx|(0.0,0.0,0.0)} |      +y,-z,-x       |
|    {m_xyx|(0.5,0.5,0.5)}  | +z+1/2,+y+1/2,+x+1/2 |
| {3^-_x-x-x|(0.0,0.0,0.0)} |      -y,+z,-x       |
| {3^-_-xx-x|(0.0,0.0,0.0)} |      -y,-z,+x       |
+------------------------+--------------------+

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*********************
space group: 219 {'Hall': ' F -4c 2 3', 'HM': 'F -4 3 c'}
Crystal system: Cubic
+x,+y,+z
+y,-x,-z+1/2
+x,-y,-z
+z,+x,+y

..................
+------------------------+--------------------+
|         Seitz          |       Jones        |
+------------------------+--------------------+
|     {1|(0.0,0.0,0.0)}  |      +x,+y,+z       |
|  {-4^+_00z|(0.0,0.0,0.5)} |    +y,-x,-z+1/2    |
|    {2_x00|(0.0,0.0,0.0)}  |      +x,-y,-z       |
|  {3^+_xxx|(0.0,0.0,0.0)}  |      +z,+x,+y       |
```

{2_00z|(0.0,0.0,0.0)}	−x,−y,+z	
{m_x−xz|(0.0,0.0,0.5)}	−y,−x,+z+1/2	
{m_xy−y|(0.0,0.0,0.5)}	+x,−z,−y+1/2	
{−4^−_00z|(0.0,0.0,0.5)}	−y,+x,−z+1/2	
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z	
{3^+_x−x−x|(0.0,0.0,0.0)}	−z,−x,+y	
{m_xxz|(0.0,0.0,0.5)}	+y,+x,+z+1/2	
{−4^+_x00|(0.0,0.0,0.5)}	−x,+z,−y+1/2	
{3^+_−xx−x|(0.0,0.0,0.0)}	+z,−x,−y	
{m_xyy|(0.0,0.0,0.5)}	+x,+z,+y+1/2	
{3^+_−x−xx|(0.0,0.0,0.0)}	−z,+x,−y	
{−4^−_x00|(0.0,0.0,0.5)}	−x,−z,+y+1/2	
{m_−xyz|(0.5,0.0,0.0)}	−z+1/2,+y,−x	
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x	
{−4^−_0y0|(0.5,0.0,0.0)}	+z+1/2,−y,−x	
{−4^+_0y0|(0.5,0.0,0.0)}	−z+1/2,−y,+x	
{3^−_−x−xx|(0.0,0.0,0.0)}	+y,−z,−x	
{m_xyx|(0.5,0.0,0.0)}	+z+1/2,+y,+x	
{3^−_x−x−x|(0.0,0.0,0.0)}	−y,+z,−x	
{3^−_−xx−x|(0.0,0.0,0.0)}	−y,−z,+x	
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2	
{−4^+_00z|(0.0,0.5,0.0)}	+y,−x+1/2,−z	
{2_x00|(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2	
{3^+_xxx|(0.0,0.5,0.5)}	+z,+x+1/2,+y+1/2	
{2_00z|(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2	
{m_x−xz|(0.0,0.5,0.0)}	−y,−x+1/2,+z	
{m_xy−y|(0.0,0.5,0.0)}	+x,−z+1/2,−y	
{−4^−_00z|(0.0,0.5,0.0)}	−y,+x+1/2,−z	
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2	
{3^+_x−x−x|(0.0,0.5,0.5)}	−z,−x+1/2,+y+1/2	
{m_xxz|(0.0,0.5,0.0)}	+y,+x+1/2,+z	
{−4^+_x00|(0.0,0.5,0.0)}	−x,+z+1/2,−y	
{3^+_−xx−x|(0.0,0.5,0.5)}	+z,−x+1/2,−y+1/2	
{m_xyy|(0.0,0.5,0.0)}	+x,+z+1/2,+y	
{3^+_−x−xx|(0.0,0.5,0.5)}	−z,+x+1/2,−y+1/2	
{−4^−_x00|(0.0,0.5,0.0)}	−x,−z+1/2,+y	
{m_−xyz|(0.5,0.5,0.5)}	−z+1/2,+y+1/2,−x+1/2	
{3^−_xxx|(0.0,0.5,0.5)}	+y,+z+1/2,+x+1/2	
{−4^−_0y0|(0.5,0.5,0.5)}	+z+1/2,−y+1/2,−x+1/2	
{−4^+_0y0|(0.5,0.5,0.5)}	−z+1/2,−y+1/2,+x+1/2	
{3^−_−x−xx|(0.0,0.5,0.5)}	+y,−z+1/2,−x+1/2	
{m_xyx|(0.5,0.5,0.5)}	+z+1/2,+y+1/2,+x+1/2	
{3^−_x−x−x|(0.0,0.5,0.5)}	−y,+z+1/2,−x+1/2	
{3^−_−xx−x|(0.0,0.5,0.5)}	−y,−z+1/2,+x+1/2	
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2	
{−4^+_00z|(0.5,0.0,0.0)}	+y+1/2,−x,−z	
{2_x00|(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2	
{3^+_xxx|(0.5,0.0,0.5)}	+z+1/2,+x,+y+1/2	
{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2	
{m_x−xz|(0.5,0.0,0.0)}	−y+1/2,−x,+z	
{m_xy−y|(0.5,0.0,0.0)}	+x+1/2,−z,−y	
{−4^−_00z|(0.5,0.0,0.0)}	−y+1/2,+x,−z	
{2_0y0|(0.5,0.0,0.5)}	−x+1/2,+y,−z+1/2	
{3^+_x−x−x|(0.5,0.0,0.5)}	−z+1/2,−x,+y+1/2	

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|     {m_xxz|(0.5,0.0,0.0)}     |       +y+1/2,+x,+z        |
|   {-4^+_x00|(0.5,0.0,0.0)}    |       -x+1/2,+z,-y        |
|  {3^+_-xx-x|(0.5,0.0,0.5)}    |     +z+1/2,-x,-y+1/2      |
|     {m_xyy|(0.5,0.0,0.0)}     |       +x+1/2,+z,+y        |
|  {3^+_-x-xx|(0.5,0.0,0.5)}    |     -z+1/2,+x,-y+1/2      |
|   {-4^-_x00|(0.5,0.0,0.0)}    |       -x+1/2,-z,+y        |
|     {m_-xyz|(0.0,0.0,0.5)}    |       -z,+y,-x+1/2        |
|   {3^-_xxx|(0.5,0.0,0.5)}     |     +y+1/2,+z,+x+1/2      |
|   {-4^-_0y0|(0.0,0.0,0.5)}    |       +z,-y,-x+1/2        |
|   {-4^+_0y0|(0.0,0.0,0.5)}    |       -z,-y,+x+1/2        |
|  {3^-_-x-xx|(0.5,0.0,0.5)}    |     +y+1/2,-z,-x+1/2      |
|     {m_xyx|(0.0,0.0,0.5)}     |       +z,+y,+x+1/2        |
|  {3^-_x-x-x|(0.5,0.0,0.5)}    |     -y+1/2,+z,-x+1/2      |
|  {3^-_-xx-x|(0.5,0.0,0.5)}    |     -y+1/2,-z,+x+1/2      |
|       {1|(0.5,0.5,0.0)}       |     +x+1/2,+y+1/2,+z      |
|   {-4^+_00z|(0.5,0.5,0.5)}    |   +y+1/2,-x+1/2,-z+1/2    |
|    {2_x00|(0.5,0.5,0.0)}      |     +x+1/2,-y+1/2,-z      |
|   {3^+_xxx|(0.5,0.5,0.0)}     |     +z+1/2,+x+1/2,+y      |
|    {2_00z|(0.5,0.5,0.0)}      |     -x+1/2,-y+1/2,+z      |
|    {m_x-xz|(0.5,0.5,0.5)}     |   -y+1/2,-x+1/2,+z+1/2    |
|    {m_xy-y|(0.5,0.5,0.5)}     |   +x+1/2,-z+1/2,-y+1/2    |
|   {-4^-_00z|(0.5,0.5,0.5)}    |   -y+1/2,+x+1/2,-z+1/2    |
|    {2_0y0|(0.5,0.5,0.0)}      |     -x+1/2,+y+1/2,-z      |
|  {3^+_x-x-x|(0.5,0.5,0.0)}    |     -z+1/2,-x+1/2,+y      |
|    {m_xxz|(0.5,0.5,0.5)}      |   +y+1/2,+x+1/2,+z+1/2    |
|   {-4^+_x00|(0.5,0.5,0.5)}    |   -x+1/2,+z+1/2,-y+1/2    |
|  {3^+_-xx-x|(0.5,0.5,0.0)}    |     +z+1/2,-x+1/2,-y      |
|    {m_xyy|(0.5,0.5,0.5)}      |   +x+1/2,+z+1/2,+y+1/2    |
|  {3^+_-x-xx|(0.5,0.5,0.0)}    |     -z+1/2,+x+1/2,-y      |
|   {-4^-_x00|(0.5,0.5,0.5)}    |   -x+1/2,-z+1/2,+y+1/2    |
|     {m_-xyz|(0.0,0.5,0.0)}    |       -z,+y+1/2,-x        |
|   {3^-_xxx|(0.5,0.5,0.0)}     |     +y+1/2,+z+1/2,+x      |
|   {-4^-_0y0|(0.0,0.5,0.0)}    |       +z,-y+1/2,-x        |
|   {-4^+_0y0|(0.0,0.5,0.0)}    |       -z,-y+1/2,+x        |
|  {3^-_-x-xx|(0.5,0.5,0.0)}    |     +y+1/2,-z+1/2,-x      |
|     {m_xyx|(0.0,0.5,0.0)}     |       +z,+y+1/2,+x        |
|  {3^-_x-x-x|(0.5,0.5,0.0)}    |     -y+1/2,+z+1/2,-x      |
|  {3^-_-xx-x|(0.5,0.5,0.0)}    |     -y+1/2,-z+1/2,+x      |
+------------------------------+--------------------------+
..................

**********************
space group: 220 {'Hall': ' I -4bd 2c 3', 'HM': 'I -4 3 d'}
Crystal system: Cubic
+x,+y,+z
+y+1/4,-x+3/4,-z+1/4
+x,-y,-z+1/2
+z,+x,+y
..................
+------------------------------+--------------------------+
|           Seitz              |          Jones           |
+------------------------------+--------------------------+
|       {1|(0.0,0.0,0.0)}      |        +x,+y,+z           |
| {-4^+_00z|(0.25,0.75,0.25)}  | +y+1/4,-x+3/4,-z+1/4     |
```

{2_x00	(0.0,0.0,0.5)}	+x,−y,−z+1/2
{3^+_xxx	(0.0,0.0,0.0)}	+z,+x,+y
{2_00z	(0.0,0.5,0.0)}	−x,−y+1/2,+z
{m_x−xz	(0.25,0.75,0.75)}	−y+1/4,−x+3/4,+z+3/4
{m_xy−y	(0.25,0.75,0.25)}	+x+1/4,−z+3/4,−y+1/4
{−4^−_00z	(0.75,0.75,0.25)}	−y+3/4,+x+3/4,−z+1/4
{2_0y0	(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2
{3^+_x−x−x	(0.0,0.5,0.0)}	−z,−x+1/2,+y
{m_xxz	(0.75,0.75,0.75)}	+y+3/4,+x+3/4,+z+3/4
{−4^+_x00	(0.75,0.75,0.25)}	−x+3/4,+z+3/4,−y+1/4
{3^+_−xx−x	(0.0,0.0,0.5)}	+z,−x,−y+1/2
{m_xyy	(0.25,0.25,0.25)}	+x+1/4,+z+1/4,+y+1/4
{3^+_−x−xx	(0.0,0.5,0.5)}	−z,+x+1/2,−y+1/2
{−4^−_x00	(0.75,0.25,0.25)}	−x+3/4,−z+1/4,+y+1/4
{m_−xyz	(0.25,0.25,0.75)}	−z+1/4,+y+1/4,−x+3/4
{3^−_xxx	(0.0,0.0,0.0)}	+y,+z,+x
{−4^−_0y0	(0.75,0.25,0.75)}	+z+3/4,−y+1/4,−x+3/4
{−4^+_0y0	(0.25,0.75,0.75)}	−z+1/4,−y+3/4,+x+3/4
{3^−_−x−xx	(0.0,0.0,0.5)}	+y,−z,−x+1/2
{m_xyx	(0.75,0.75,0.75)}	+z+3/4,+y+3/4,+x+3/4
{3^−_x−x−x	(0.5,0.0,0.0)}	−y+1/2,+z,−x
{3^−_−xx−x	(0.5,0.0,0.5)}	−y+1/2,−z,+x+1/2
{1	(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2
{−4^+_00z	(0.75,0.25,0.75)}	+y+3/4,−x+1/4,−z+3/4
{2_x00	(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{3^+_xxx	(0.5,0.5,0.5)}	+z+1/2,+x+1/2,+y+1/2
{2_00z	(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{m_x−xz	(0.75,0.25,0.25)}	−y+3/4,−x+1/4,+z+1/4
{m_xy−y	(0.75,0.25,0.75)}	+x+3/4,−z+1/4,−y+3/4
{−4^−_00z	(0.25,0.25,0.75)}	−y+1/4,+x+1/4,−z+3/4
{2_0y0	(0.5,0.0,0.0)}	−x+1/2,+y,−z
{3^+_x−x−x	(0.5,0.0,0.5)}	−z+1/2,−x,+y+1/2
{m_xxz	(0.25,0.25,0.25)}	+y+1/4,+x+1/4,+z+1/4
{−4^+_x00	(0.25,0.25,0.75)}	−x+1/4,+z+1/4,−y+3/4
{3^+_−xx−x	(0.5,0.5,0.0)}	+z+1/2,−x+1/2,−y
{m_xyy	(0.75,0.75,0.75)}	+x+3/4,+z+3/4,+y+3/4
{3^+_−x−xx	(0.5,0.0,0.0)}	−z+1/2,+x,−y
{−4^−_x00	(0.25,0.75,0.75)}	−x+1/4,−z+3/4,+y+3/4
{m_−xyz	(0.75,0.75,0.25)}	−z+3/4,+y+3/4,−x+1/4
{3^−_xxx	(0.5,0.5,0.5)}	+y+1/2,+z+1/2,+x+1/2
{−4^−_0y0	(0.25,0.75,0.25)}	+z+1/4,−y+3/4,−x+1/4
{−4^+_0y0	(0.75,0.25,0.25)}	−z+3/4,−y+1/4,+x+1/4
{3^−_−x−xx	(0.5,0.5,0.0)}	+y+1/2,−z+1/2,−x
{m_xyx	(0.25,0.25,0.25)}	+z+1/4,+y+1/4,+x+1/4
{3^−_x−x−x	(0.0,0.5,0.5)}	−y,+z+1/2,−x+1/2
{3^−_−xx−x	(0.0,0.5,0.0)}	−y,−z+1/2,+x
+--------------------------+--------------------+

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space group: 221 {'Hall': '−P 4 2 3', 'HM': 'P m −3 m'}
Crystal system: Cubic
+x,+y,+z
−y,+x,+z

```
+x,−y,−z
+z,+x,+y
..................
+--------------------------+----------+
|          Seitz           |   Jones  |
+--------------------------+----------+
|      {1|(0.0,0.0,0.0)}   | +x,+y,+z |
|   {4^+_00z|(0.0,0.0,0.0)}| −y,+x,+z |
|    {2_x00|(0.0,0.0,0.0)} | +x,−y,−z |
|   {3^+_xxx|(0.0,0.0,0.0)}| +z,+x,+y |
|    {2_00z|(0.0,0.0,0.0)} | −x,−y,+z |
|    {2_xx0|(0.0,0.0,0.0)} | +y,+x,−z |
|    {2_0yy|(0.0,0.0,0.0)} | −x,+z,+y |
|   {4^−_00z|(0.0,0.0,0.0)}| +y,−x,+z |
|    {2_0y0|(0.0,0.0,0.0)} | −x,+y,−z |
| {3^+_x−x−x|(0.0,0.0,0.0)}| −z,−x,+y |
|    {2_x−x0|(0.0,0.0,0.0)}| −y,−x,−z |
|   {4^+_x00|(0.0,0.0,0.0)}| +x,−z,+y |
| {3^+_−xx−x|(0.0,0.0,0.0)}| +z,−x,−y |
|    {2_0y−y|(0.0,0.0,0.0)}| −x,−z,−y |
| {3^+_−x−xx|(0.0,0.0,0.0)}| −z,+x,−y |
|   {4^−_x00|(0.0,0.0,0.0)}| +x,+z,−y |
|    {2_x0x|(0.0,0.0,0.0)} | +z,−y,+x |
|   {3^−_xxx|(0.0,0.0,0.0)}| +y,+z,+x |
|   {4^−_0y0|(0.0,0.0,0.0)}| −z,+y,+x |
|   {4^+_0y0|(0.0,0.0,0.0)}| +z,+y,−x |
| {3^−_−x−xx|(0.0,0.0,0.0)}| +y,−z,−x |
|    {2_−x0x|(0.0,0.0,0.0)}| −z,−y,−x |
| {3^−_x−x−x|(0.0,0.0,0.0)}| −y,+z,−x |
| {3^−_−xx−x|(0.0,0.0,0.0)}| −y,−z,+x |
|     {−1|(0.0,0.0,0.0)}   | −x,−y,−z |
|  {−4^+_00z|(0.0,0.0,0.0)}| +y,−x,−z |
|    {m_0yz|(0.0,0.0,0.0)} | −x,+y,+z |
|  {−3^+_xxx|(0.0,0.0,0.0)}| −z,−x,−y |
|    {m_xy0|(0.0,0.0,0.0)} | +x,+y,−z |
|    {m_x−xz|(0.0,0.0,0.0)}| −y,−x,+z |
|    {m_xy−y|(0.0,0.0,0.0)}| +x,−z,−y |
|  {−4^−_00z|(0.0,0.0,0.0)}| −y,+x,−z |
|    {m_x0z|(0.0,0.0,0.0)} | +x,−y,+z |
| {−3^+_x−x−x|(0.0,0.0,0.0)}| +z,+x,−y |
|    {m_xxz|(0.0,0.0,0.0)} | +y,+x,+z |
|  {−4^+_x00|(0.0,0.0,0.0)}| −x,+z,−y |
| {−3^+_−xx−x|(0.0,0.0,0.0)}| −z,+x,+y |
|    {m_xyy|(0.0,0.0,0.0)} | +x,+z,+y |
| {−3^+_−x−xx|(0.0,0.0,0.0)}| +z,−x,+y |
|  {−4^−_x00|(0.0,0.0,0.0)}| −x,−z,+y |
|    {m_−xyz|(0.0,0.0,0.0)}| −z,+y,−x |
|  {−3^−_xxx|(0.0,0.0,0.0)}| −y,−z,−x |
|  {−4^−_0y0|(0.0,0.0,0.0)}| +z,−y,−x |
|  {−4^+_0y0|(0.0,0.0,0.0)}| −z,−y,+x |
| {−3^−_−x−xx|(0.0,0.0,0.0)}| −y,+z,+x |
|    {m_xyx|(0.0,0.0,0.0)} | +z,+y,+x |
| {−3^−_x−x−x|(0.0,0.0,0.0)}| +y,−z,+x |
| {−3^−_−xx−x|(0.0,0.0,0.0)}| +y,+z,−x |
```

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              +--------------------------+----------+
...................

**********************
space group: 222:1 {'Hall': ' P 4 2 3 -1n', 'HM': 'P n -3 n:1'}
Crystal system: Cubic
Setting: 1
+x,+y,+z
-y,+x,+z
+x,-y,-z
+z,+x,+y
-x+1/2,-y+1/2,-z+1/2
...................
              +--------------------------+----------------------+
              |          Seitz           |         Jones        |
              +--------------------------+----------------------+
              |      {1|(0.0,0.0,0.0)}    |       +x,+y,+z       |
              |   {4^+_00z|(0.0,0.0,0.0)} |       -y,+x,+z       |
              |    {2_x00|(0.0,0.0,0.0)}  |       +x,-y,-z       |
              |  {3^+_xxx|(0.0,0.0,0.0)}  |       +z,+x,+y       |
              |     {-1|(0.5,0.5,0.5)}    |  -x+1/2,-y+1/2,-z+1/2 |
              |    {2_00z|(0.0,0.0,0.0)}  |       -x,-y,+z       |
              |    {2_xx0|(0.0,0.0,0.0)}  |       +y,+x,-z       |
              |    {2_0yy|(0.0,0.0,0.0)}  |       -x,+z,+y       |
              |  {-4^+_00z|(0.5,0.5,0.5)} |  +y+1/2,-x+1/2,-z+1/2 |
              |   {4^-_00z|(0.0,0.0,0.0)} |       +y,-x,+z       |
              |    {2_0y0|(0.0,0.0,0.0)}  |       -x,+y,-z       |
              | {3^+_x-x-x|(0.0,0.0,0.0)} |       -z,-x,+y       |
              |    {m_xy0|(0.5,0.5,0.5)}  |  +x+1/2,+y+1/2,-z+1/2 |
              |    {2_x-x0|(0.0,0.0,0.0)} |       -y,-x,-z       |
              |   {4^+_x00|(0.0,0.0,0.0)} |       +x,-z,+y       |
              |  {-4^-_00z|(0.5,0.5,0.5)} |  -y+1/2,+x+1/2,-z+1/2 |
              | {3^+_-xx-x|(0.0,0.0,0.0)} |       +z,-x,-y       |
              |    {m_0yz|(0.5,0.5,0.5)}  |  -x+1/2,+y+1/2,+z+1/2 |
              |    {2_0y-y|(0.0,0.0,0.0)} |       -x,-z,-y       |
              |    {m_xxz|(0.5,0.5,0.5)}  |  +y+1/2,+x+1/2,+z+1/2 |
              | {3^+_-x-xx|(0.0,0.0,0.0)} |       -z,+x,-y       |
              |    {m_x0z|(0.5,0.5,0.5)}  |  +x+1/2,-y+1/2,+z+1/2 |
              |   {4^-_x00|(0.0,0.0,0.0)} |       +x,+z,-y       |
              |    {m_x-xz|(0.5,0.5,0.5)} |  -y+1/2,-x+1/2,+z+1/2 |
              +--------------------------+----------------------+
...................

**********************
space group: 222:2 {'Hall': '-P 4a 2bc 3', 'HM': 'P n -3 n:2'}
Crystal system: Cubic
Setting: 2
+x,+y,+z
-y+1/2,+x,+z
+x,-y+1/2,-z+1/2
+z,+x,+y
...................
              +--------------------------+----------------------+
              |          Seitz           |         Jones        |
```

{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.5,0.0,0.0)}	−y+1/2,+x,+z
{2_x00|(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_00z|(0.5,0.5,0.0)}	−x+1/2,−y+1/2,+z
{2_xx0|(0.0,0.0,0.5)}	+y,+x,−z+1/2
{2_0yy|(0.5,0.0,0.0)}	−x+1/2,+z,+y
{4^−_00z|(0.0,0.5,0.0)}	+y,−x+1/2,+z
{2_0y0|(0.5,0.0,0.5)}	−x+1/2,+y,−z+1/2
{3^+_x−x−x|(0.5,0.5,0.0)}	−z+1/2,−x+1/2,+y
{2_x−x0|(0.5,0.5,0.5)}	−y+1/2,−x+1/2,−z+1/2
{4^+_x00|(0.0,0.5,0.0)}	+x,−z+1/2,+y
{3^+_−xx−x|(0.0,0.5,0.5)}	+z,−x+1/2,−y+1/2
{2_0y−y|(0.5,0.5,0.5)}	−x+1/2,−z+1/2,−y+1/2
{3^+_−x−xx|(0.5,0.0,0.5)}	−z+1/2,+x,−y+1/2
{4^−_x00|(0.0,0.0,0.5)}	+x,+z,−y+1/2
{2_x0x|(0.0,0.5,0.0)}	+z,−y+1/2,+x
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{4^−_0y0|(0.5,0.0,0.0)}	−z+1/2,+y,+x
{4^+_0y0|(0.0,0.0,0.5)}	+z,+y,−x+1/2
{3^−_−x−xx|(0.0,0.5,0.5)}	+y,−z+1/2,−x+1/2
{2_−x0x|(0.5,0.5,0.5)}	−z+1/2,−y+1/2,−x+1/2
{3^−_x−x−x|(0.5,0.0,0.5)}	−y+1/2,+z,−x+1/2
{3^−_−xx−x|(0.5,0.5,0.0)}	−y+1/2,−z+1/2,+x
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{−4^+_00z|(0.5,0.0,0.0)}	+y+1/2,−x,−z
{m_0yz|(0.0,0.5,0.5)}	−x,+y+1/2,+z+1/2
{−3^+_xxx|(0.0,0.0,0.0)}	−z,−x,−y
{m_xy0|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,−z
{m_x−xz|(0.0,0.0,0.5)}	−y,−x,+z+1/2
{m_xy−y|(0.5,0.0,0.0)}	+x+1/2,−z,−y
{−4^−_00z|(0.0,0.5,0.0)}	−y,+x+1/2,−z
{m_x0z|(0.5,0.0,0.5)}	+x+1/2,−y,+z+1/2
{−3^+_x−x−x|(0.5,0.5,0.0)}	+z+1/2,+x+1/2,−y
{m_xxz|(0.5,0.5,0.5)}	+y+1/2,+x+1/2,+z+1/2
{−4^+_x00|(0.0,0.5,0.0)}	−x,+z+1/2,−y
{−3^+_−xx−x|(0.0,0.5,0.5)}	−z,+x+1/2,+y+1/2
{m_xyy|(0.5,0.5,0.5)}	+x+1/2,+z+1/2,+y+1/2
{−3^+_−x−xx|(0.5,0.0,0.5)}	+z+1/2,−x,+y+1/2
{−4^−_x00|(0.0,0.0,0.5)}	−x,−z,+y+1/2
{m_−xyz|(0.0,0.5,0.0)}	−z,+y+1/2,−x
{−3^−_xxx|(0.0,0.0,0.0)}	−y,−z,−x
{−4^−_0y0|(0.5,0.0,0.0)}	+z+1/2,−y,−x
{−4^+_0y0|(0.0,0.0,0.5)}	−z,−y,+x+1/2
{−3^−_−x−xx|(0.0,0.5,0.5)}	−y,+z+1/2,+x+1/2
{m_xyx|(0.5,0.5,0.5)}	+z+1/2,+y+1/2,+x+1/2
{−3^−_x−x−x|(0.5,0.0,0.5)}	+y+1/2,−z,+x+1/2
{−3^−_−xx−x|(0.5,0.5,0.0)}	+y+1/2,+z+1/2,−x

....

****
space group: 223 {'Hall': '−P 4n 2 3', 'HM': 'P m −3 n'}

Crystal system: Cubic
+x,+y,+z
−y+1/2,+x+1/2,+z+1/2
+x,−y,−z
+z,+x,+y
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.5,0.5,0.5)}	−y+1/2,+x+1/2,+z+1/2
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{2_xx0|(0.5,0.5,0.5)}	+y+1/2,+x+1/2,−z+1/2
{2_0yy|(0.5,0.5,0.5)}	−x+1/2,+z+1/2,+y+1/2
{4^−_00z|(0.5,0.5,0.5)}	+y+1/2,−x+1/2,+z+1/2
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z
{3^+_x−x−x|(0.0,0.0,0.0)}	−z,−x,+y
{2_x−x0|(0.5,0.5,0.5)}	−y+1/2,−x+1/2,−z+1/2
{4^+_x00|(0.5,0.5,0.5)}	+x+1/2,−z+1/2,+y+1/2
{3^+_−xx−x|(0.0,0.0,0.0)}	+z,−x,−y
{2_0y−y|(0.5,0.5,0.5)}	−x+1/2,−z+1/2,−y+1/2
{3^+_−x−xx|(0.0,0.0,0.0)}	−z,+x,−y
{4^−_x00|(0.5,0.5,0.5)}	+x+1/2,+z+1/2,−y+1/2
{2_x0x|(0.5,0.5,0.5)}	+z+1/2,−y+1/2,+x+1/2
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{4^−_0y0|(0.5,0.5,0.5)}	−z+1/2,+y+1/2,+x+1/2
{4^+_0y0|(0.5,0.5,0.5)}	+z+1/2,+y+1/2,−x+1/2
{3^−_−x−xx|(0.0,0.0,0.0)}	+y,−z,−x
{2_−x0x|(0.5,0.5,0.5)}	−z+1/2,−y+1/2,−x+1/2
{3^−_x−x−x|(0.0,0.0,0.0)}	−y,+z,−x
{3^−_−xx−x|(0.0,0.0,0.0)}	−y,−z,+x
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{−4^+_00z|(0.5,0.5,0.5)}	+y+1/2,−x+1/2,−z+1/2
{m_0yz|(0.0,0.0,0.0)}	−x,+y,+z
{−3^+_xxx|(0.0,0.0,0.0)}	−z,−x,−y
{m_xy0|(0.0,0.0,0.0)}	+x,+y,−z
{m_x−xz|(0.5,0.5,0.5)}	−y+1/2,−x+1/2,+z+1/2
{m_xy−y|(0.5,0.5,0.5)}	+x+1/2,−z+1/2,−y+1/2
{−4^−_00z|(0.5,0.5,0.5)}	−y+1/2,+x+1/2,−z+1/2
{m_x0z|(0.0,0.0,0.0)}	+x,−y,+z
{−3^+_x−x−x|(0.0,0.0,0.0)}	+z,+x,−y
{m_xxz|(0.5,0.5,0.5)}	+y+1/2,+x+1/2,+z+1/2
{−4^+_x00|(0.5,0.5,0.5)}	−x+1/2,+z+1/2,−y+1/2
{−3^+_−xx−x|(0.0,0.0,0.0)}	−z,+x,+y
{m_xyy|(0.5,0.5,0.5)}	+x+1/2,+z+1/2,+y+1/2
{−3^+_−x−xx|(0.0,0.0,0.0)}	+z,−x,+y
{−4^−_x00|(0.5,0.5,0.5)}	−x+1/2,−z+1/2,+y+1/2
{m_−xyz|(0.5,0.5,0.5)}	−z+1/2,+y+1/2,−x+1/2
{−3^−_xxx|(0.0,0.0,0.0)}	−y,−z,−x
{−4^−_0y0|(0.5,0.5,0.5)}	+z+1/2,−y+1/2,−x+1/2
{−4^+_0y0|(0.5,0.5,0.5)}	−z+1/2,−y+1/2,+x+1/2
{−3^−_−x−xx|(0.0,0.0,0.0)}	−y,+z,+x

```
|    {m_xyx|(0.5,0.5,0.5)}    |  +z+1/2,+y+1/2,+x+1/2 |
| {-3^-_x-x-x|(0.0,0.0,0.0)}  |       +y,-z,+x        |
| {-3^-__xx-x|(0.0,0.0,0.0)}  |       +y,+z,-x        |
+----------------------------+----------------------+
..................

**********************
space group: 224:1 {'Hall': ' P 4n 2 3 -1n', 'HM': 'P n -3 m:1'}
Crystal system: Cubic
Setting: 1
+x,+y,+z
-y+1/2,+x+1/2,+z+1/2
+x,-y,-z
+z,+x,+y
-x+1/2,-y+1/2,-z+1/2
..................

+----------------------------+----------------------+
|            Seitz           |         Jones        |
+----------------------------+----------------------+
|       {1|(0.0,0.0,0.0)}    |       +x,+y,+z        |
|   {4^+_00z|(0.5,0.5,0.5)}  |  -y+1/2,+x+1/2,+z+1/2 |
|    {2_x00|(0.0,0.0,0.0)}   |       +x,-y,-z        |
|   {3^+_xxx|(0.0,0.0,0.0)}  |       +z,+x,+y        |
|      {-1|(0.5,0.5,0.5)}    |  -x+1/2,-y+1/2,-z+1/2 |
|    {2_00z|(0.0,0.0,0.0)}   |       -x,-y,+z        |
|    {2_xx0|(0.5,0.5,0.5)}   |  +y+1/2,+x+1/2,-z+1/2 |
|    {2_0yy|(0.5,0.5,0.5)}   |  -x+1/2,+z+1/2,+y+1/2 |
|   {-4^+_00z|(0.0,0.0,0.0)} |       +y,-x,-z        |
|   {4^-_00z|(0.5,0.5,0.5)}  |  +y+1/2,-x+1/2,+z+1/2 |
|    {2_0y0|(0.0,0.0,0.0)}   |       -x,+y,-z        |
| {3^+_x-x-x|(0.0,0.0,0.0)}  |       -z,-x,+y        |
|    {m_xy0|(0.5,0.5,0.5)}   |  +x+1/2,+y+1/2,-z+1/2 |
|    {2_x-x0|(0.5,0.5,0.5)}  |  -y+1/2,-x+1/2,-z+1/2 |
|   {4^+_x00|(0.5,0.5,0.5)}  |  +x+1/2,-z+1/2,+y+1/2 |
|   {-4^-_00z|(0.0,0.0,0.0)} |       -y,+x,-z        |
| {3^+__xx-x|(0.0,0.0,0.0)}  |       +z,-x,-y        |
|    {m_0yz|(0.5,0.5,0.5)}   |  -x+1/2,+y+1/2,+z+1/2 |
|    {2_0y-y|(0.5,0.5,0.5)}  |  -x+1/2,-z+1/2,-y+1/2 |
|    {m_xxz|(0.0,0.0,0.0)}   |       +y,+x,+z        |
| {3^+__-x-xx|(0.0,0.0,0.0)} |       -z,+x,-y        |
|    {m_x0z|(0.5,0.5,0.5)}   |  +x+1/2,-y+1/2,+z+1/2 |
|   {4^-_x00|(0.5,0.5,0.5)}  |  +x+1/2,+z+1/2,-y+1/2 |
|    {m_x-xz|(0.0,0.0,0.0)}  |       -y,-x,+z        |
+----------------------------+----------------------+
..................

**********************
space group: 224:2 {'Hall': '-P 4bc 2bc 3', 'HM': 'P n -3 m:2'}
Crystal system: Cubic
Setting: 2
+x,+y,+z
-y,+x+1/2,+z+1/2
+x,-y+1/2,-z+1/2
+z,+x,+y
```

....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.0,0.5,0.5)}	−y,+x+1/2,+z+1/2
{2_x00|(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_00z|(0.5,0.5,0.0)}	−x+1/2,−y+1/2,+z
{2_xx0|(0.5,0.5,0.0)}	+y+1/2,+x+1/2,−z
{2_0yy|(0.0,0.5,0.5)}	−x,+z+1/2,+y+1/2
{4^−_00z|(0.5,0.0,0.5)}	+y+1/2,−x,+z+1/2
{2_0y0|(0.5,0.0,0.5)}	−x+1/2,+y,−z+1/2
{3^+_x−x−x|(0.5,0.5,0.0)}	−z+1/2,−x+1/2,+y
{2_x−0|(0.0,0.0,0.0)}	−y,−x,−z
{4^+_x00|(0.5,0.0,0.5)}	+x+1/2,−z,+y+1/2
{3^+_−xx−x|(0.0,0.5,0.5)}	+z,−x+1/2,−y+1/2
{2_0y−y|(0.0,0.0,0.0)}	−x,−z,−y
{3^+_−x−xx|(0.5,0.0,0.5)}	−z+1/2,+x,−y+1/2
{4^−_x00|(0.5,0.5,0.0)}	+x+1/2,+z+1/2,−y
{2_x0x|(0.5,0.0,0.5)}	+z+1/2,−y,+x+1/2
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{4^−_0y0|(0.0,0.5,0.5)}	−z,+y+1/2,+x+1/2
{4^+_0y0|(0.5,0.5,0.0)}	+z+1/2,+y+1/2,−x
{3^−_−x−xx|(0.0,0.5,0.5)}	+y,−z+1/2,−x+1/2
{2_−x0x|(0.0,0.0,0.0)}	−z,−y,−x
{3^−_x−x−x|(0.5,0.0,0.5)}	−y+1/2,+z,−x+1/2
{3^−_−xx−x|(0.5,0.5,0.0)}	−y+1/2,−z+1/2,+x
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{−4^+_00z|(0.0,0.5,0.5)}	+y,−x+1/2,−z+1/2
{m_0yz|(0.0,0.5,0.5)}	−x,+y+1/2,+z+1/2
{−3^+_xxx|(0.0,0.0,0.0)}	−z,−x,−y
{m_xy0|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,−z
{m_x−xz|(0.5,0.5,0.0)}	−y+1/2,−x+1/2,+z
{m_xy−y|(0.0,0.5,0.5)}	+x,−z+1/2,−y+1/2
{−4^−_00z|(0.5,0.0,0.5)}	−y+1/2,+x,−z+1/2
{m_x0z|(0.5,0.0,0.5)}	+x+1/2,−y,+z+1/2
{−3^+_x−x−x|(0.5,0.5,0.0)}	+z+1/2,+x+1/2,−y
{m_xxz|(0.0,0.0,0.0)}	+y,+x,+z
{−4^+_x00|(0.5,0.0,0.5)}	−x+1/2,+z,−y+1/2
{−3^+_−xx−x|(0.0,0.5,0.5)}	−z,+x+1/2,+y+1/2
{m_xyy|(0.0,0.0,0.0)}	+x,+z,+y
{−3^+_−x−xx|(0.5,0.0,0.5)}	+z+1/2,−x,+y+1/2
{−4^−_x00|(0.5,0.5,0.0)}	−x+1/2,−z+1/2,+y
{m_−xyz|(0.5,0.0,0.5)}	−z+1/2,+y,−x+1/2
{−3^−_xxx|(0.0,0.0,0.0)}	−y,−z,−x
{−4^−_0y0|(0.0,0.5,0.5)}	+z,−y+1/2,−x+1/2
{−4^+_0y0|(0.5,0.5,0.0)}	−z+1/2,−y+1/2,+x
{−3^−_−x−xx|(0.0,0.5,0.5)}	−y,+z+1/2,+x+1/2
{m_xyx|(0.0,0.0,0.0)}	+z,+y,+x
{−3^−_x−x−x|(0.5,0.0,0.5)}	+y+1/2,−z,+x+1/2
{−3^−_−xx−x|(0.5,0.5,0.0)}	+y+1/2,+z+1/2,−x

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space group: 225 {'Hall': '-F 4 2 3', 'HM': 'F m -3 m'}
Crystal system: Cubic
+x,+y,+z
-y,+x,+z
+x,-y,-z
+z,+x,+y
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Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.0,0.0,0.0)}	-y,+x,+z
{2_x00|(0.0,0.0,0.0)}	+x,-y,-z
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_00z|(0.0,0.0,0.0)}	-x,-y,+z
{2_xx0|(0.0,0.0,0.0)}	+y,+x,-z
{2_0yy|(0.0,0.0,0.0)}	-x,+z,+y
{4^-_00z|(0.0,0.0,0.0)}	+y,-x,+z
{2_0y0|(0.0,0.0,0.0)}	-x,+y,-z
{3^+_x-x-x|(0.0,0.0,0.0)}	-z,-x,+y
{2_x-x0|(0.0,0.0,0.0)}	-y,-x,-z
{4^+_x00|(0.0,0.0,0.0)}	+x,-z,+y
{3^+_-xx-x|(0.0,0.0,0.0)}	+z,-x,-y
{2_0y-y|(0.0,0.0,0.0)}	-x,-z,-y
{3^+_-x-xx|(0.0,0.0,0.0)}	-z,+x,-y
{4^-_x00|(0.0,0.0,0.0)}	+x,+z,-y
{2_x0x|(0.0,0.0,0.0)}	+z,-y,+x
{3^-_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{4^-_0y0|(0.0,0.0,0.0)}	-z,+y,+x
{4^+_0y0|(0.0,0.0,0.0)}	+z,+y,-x
{3^-_-x-xx|(0.0,0.0,0.0)}	+y,-z,-x
{2_-x0x|(0.0,0.0,0.0)}	-z,-y,-x
{3^-_x-x-x|(0.0,0.0,0.0)}	-y,+z,-x
{3^-_-xx-x|(0.0,0.0,0.0)}	-y,-z,+x
{-1|(0.0,0.0,0.0)}	-x,-y,-z
{-4^+_00z|(0.0,0.0,0.0)}	+y,-x,-z
{m_0yz|(0.0,0.0,0.0)}	-x,+y,+z
{-3^+_xxx|(0.0,0.0,0.0)}	-z,-x,-y
{m_xy0|(0.0,0.0,0.0)}	+x,+y,-z
{m_x-xz|(0.0,0.0,0.0)}	-y,-x,+z
{m_xy-y|(0.0,0.0,0.0)}	+x,-z,-y
{-4^-_00z|(0.0,0.0,0.0)}	-y,+x,-z
{m_x0z|(0.0,0.0,0.0)}	+x,-y,+z
{-3^+_x-x-x|(0.0,0.0,0.0)}	+z,+x,-y
{m_xxz|(0.0,0.0,0.0)}	+y,+x,+z
{-4^+_x00|(0.0,0.0,0.0)}	-x,+z,-y
{-3^+_-xx-x|(0.0,0.0,0.0)}	-z,+x,+y
{m_xyy|(0.0,0.0,0.0)}	+x,+z,+y
{-3^+_-x-xx|(0.0,0.0,0.0)}	+z,-x,+y
{-4^-_x00|(0.0,0.0,0.0)}	-x,-z,+y
{m_-xyz|(0.0,0.0,0.0)}	-z,+y,-x
{-3^-_xxx|(0.0,0.0,0.0)}	-y,-z,-x

{-4^-_0y0	(0.0,0.0,0.0)}	+z,-y,-x
{-4^+_0y0	(0.0,0.0,0.0)}	-z,-y,+x
{-3^-_-x-xx	(0.0,0.0,0.0)}	-y,+z,+x
{m_xyx	(0.0,0.0,0.0)}	+z,+y,+x
{-3^-_x-x-x	(0.0,0.0,0.0)}	+y,-z,+x
{-3^-_-xx-x	(0.0,0.0,0.0)}	+y,+z,-x
{1	(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{4^+_00z	(0.0,0.5,0.5)}	-y,+x+1/2,+z+1/2
{2_x00	(0.0,0.5,0.5)}	+x,-y+1/2,-z+1/2
{3^+_xxx	(0.0,0.5,0.5)}	+z,+x+1/2,+y+1/2
{2_00z	(0.0,0.5,0.5)}	-x,-y+1/2,+z+1/2
{2_xx0	(0.0,0.5,0.5)}	+y,+x+1/2,-z+1/2
{2_0yy	(0.0,0.5,0.5)}	-x,+z+1/2,+y+1/2
{4^-_00z	(0.0,0.5,0.5)}	+y,-x+1/2,+z+1/2
{2_0y0	(0.0,0.5,0.5)}	-x,+y+1/2,-z+1/2
{3^+_x-x-x	(0.0,0.5,0.5)}	-z,-x+1/2,+y+1/2
{2_x-x0	(0.0,0.5,0.5)}	-y,-x+1/2,-z+1/2
{4^+_x00	(0.0,0.5,0.5)}	+x,-z+1/2,+y+1/2
{3^+_-xx-x	(0.0,0.5,0.5)}	+z,-x+1/2,-y+1/2
{2_0y-y	(0.0,0.5,0.5)}	-x,-z+1/2,-y+1/2
{3^+_-x-xx	(0.0,0.5,0.5)}	-z,+x+1/2,-y+1/2
{4^-_x00	(0.0,0.5,0.5)}	+x,+z+1/2,-y+1/2
{2_x0x	(0.0,0.5,0.5)}	+z,-y+1/2,+x+1/2
{3^-_xxx	(0.0,0.5,0.5)}	+y,+z+1/2,+x+1/2
{4^-_0y0	(0.0,0.5,0.5)}	-z,+y+1/2,+x+1/2
{4^+_0y0	(0.0,0.5,0.5)}	+z,+y+1/2,-x+1/2
{3^-_-x-xx	(0.0,0.5,0.5)}	+y,-z+1/2,-x+1/2
{2_-x0x	(0.0,0.5,0.5)}	-z,-y+1/2,-x+1/2
{3^-_x-x-x	(0.0,0.5,0.5)}	-y,+z+1/2,-x+1/2
{3^-_-xx-x	(0.0,0.5,0.5)}	-y,-z+1/2,+x+1/2
{-1	(0.0,0.5,0.5)}	-x,-y+1/2,-z+1/2
{-4^+_00z	(0.0,0.5,0.5)}	+y,-x+1/2,-z+1/2
{m_0yz	(0.0,0.5,0.5)}	-x,+y+1/2,+z+1/2
{-3^+_xxx	(0.0,0.5,0.5)}	-z,-x+1/2,-y+1/2
{m_xy0	(0.0,0.5,0.5)}	+x,+y+1/2,-z+1/2
{m_x-xz	(0.0,0.5,0.5)}	-y,-x+1/2,+z+1/2
{m_xy-y	(0.0,0.5,0.5)}	+x,-z+1/2,-y+1/2
{-4^-_00z	(0.0,0.5,0.5)}	-y,+x+1/2,-z+1/2
{m_x0z	(0.0,0.5,0.5)}	+x,-y+1/2,+z+1/2
{-3^+_x-x-x	(0.0,0.5,0.5)}	+z,+x+1/2,-y+1/2
{m_xxz	(0.0,0.5,0.5)}	+y,+x+1/2,+z+1/2
{-4^+_x00	(0.0,0.5,0.5)}	-x,+z+1/2,-y+1/2
{-3^+_-xx-x	(0.0,0.5,0.5)}	-z,+x+1/2,+y+1/2
{m_xyy	(0.0,0.5,0.5)}	+x,+z+1/2,+y+1/2
{-3^+_-x-xx	(0.0,0.5,0.5)}	+z,-x+1/2,+y+1/2
{-4^-_x00	(0.0,0.5,0.5)}	-x,-z+1/2,+y+1/2
{m_-xyz	(0.0,0.5,0.5)}	-z,+y+1/2,-x+1/2
{-3^-_xxx	(0.0,0.5,0.5)}	-y,-z+1/2,-x+1/2
{-4^-_0y0	(0.0,0.5,0.5)}	+z,-y+1/2,-x+1/2
{-4^+_0y0	(0.0,0.5,0.5)}	-z,-y+1/2,+x+1/2
{-3^-_-x-xx	(0.0,0.5,0.5)}	-y,+z+1/2,+x+1/2
{m_xyx	(0.0,0.5,0.5)}	+z,+y+1/2,+x+1/2
{-3^-_x-x-x	(0.0,0.5,0.5)}	+y,-z+1/2,+x+1/2
{-3^-_-xx-x	(0.0,0.5,0.5)}	+y,+z+1/2,-x+1/2

{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{4^+_00z|(0.5,0.0,0.5)}	−y+1/2,+x,+z+1/2
{2_x00|(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{3^+_xxx|(0.5,0.0,0.5)}	+z+1/2,+x,+y+1/2
{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{2_xx0|(0.5,0.0,0.5)}	+y+1/2,+x,−z+1/2
{2_0yy|(0.5,0.0,0.5)}	−x+1/2,+z,+y+1/2
{4^−_00z|(0.5,0.0,0.5)}	+y+1/2,−x,+z+1/2
{2_0y0|(0.5,0.0,0.5)}	−x+1/2,+y,−z+1/2
{3^+_x−x−x|(0.5,0.0,0.5)}	−z+1/2,−x,+y+1/2
{2_x−0|(0.5,0.0,0.5)}	−y+1/2,−x,−z+1/2
{4^+_x00|(0.5,0.0,0.5)}	+x+1/2,−z,+y+1/2
{3^+_−xx−x|(0.5,0.0,0.5)}	+z+1/2,−x,−y+1/2
{2_0y−y|(0.5,0.0,0.5)}	−x+1/2,−z,−y+1/2
{3^+_−x−xx|(0.5,0.0,0.5)}	−z+1/2,+x,−y+1/2
{4^−_x00|(0.5,0.0,0.5)}	+x+1/2,+z,−y+1/2
{2_x0x|(0.5,0.0,0.5)}	+z+1/2,−y,+x+1/2
{3^−_xxx|(0.5,0.0,0.5)}	+y+1/2,+z,+x+1/2
{4^−_0y0|(0.5,0.0,0.5)}	−z+1/2,+y,+x+1/2
{4^+_0y0|(0.5,0.0,0.5)}	+z+1/2,+y,−x+1/2
{3^−_−x−xx|(0.5,0.0,0.5)}	+y+1/2,−z,−x+1/2
{2_−x0x|(0.5,0.0,0.5)}	−z+1/2,−y,−x+1/2
{3^−_x−x−x|(0.5,0.0,0.5)}	−y+1/2,+z,−x+1/2
{3^−_−xx−x|(0.5,0.0,0.5)}	−y+1/2,−z,+x+1/2
{−1|(0.5,0.0,0.5)}	−x+1/2,−y,−z+1/2
{−4^+_00z|(0.5,0.0,0.5)}	+y+1/2,−x,−z+1/2
{m_0yz|(0.5,0.0,0.5)}	−x+1/2,+y,+z+1/2
{−3^+_xxx|(0.5,0.0,0.5)}	−z+1/2,−x,−y+1/2
{m_xy0|(0.5,0.0,0.5)}	+x+1/2,+y,−z+1/2
{m_x−xz|(0.5,0.0,0.5)}	−y+1/2,−x,+z+1/2
{m_xy−y|(0.5,0.0,0.5)}	+x+1/2,−z,−y+1/2
{−4^−_00z|(0.5,0.0,0.5)}	−y+1/2,+x,−z+1/2
{m_x0z|(0.5,0.0,0.5)}	+x+1/2,−y,+z+1/2
{−3^+_x−x−x|(0.5,0.0,0.5)}	+z+1/2,+x,−y+1/2
{m_xxz|(0.5,0.0,0.5)}	+y+1/2,+x,+z+1/2
{−4^+_x00|(0.5,0.0,0.5)}	−x+1/2,+z,−y+1/2
{−3^+_−xx−x|(0.5,0.0,0.5)}	−z+1/2,+x,+y+1/2
{m_xyy|(0.5,0.0,0.5)}	+x+1/2,+z,+y+1/2
{−3^+_−x−xx|(0.5,0.0,0.5)}	+z+1/2,−x,+y+1/2
{−4^−_x00|(0.5,0.0,0.5)}	−x+1/2,−z,+y+1/2
{m_−xyz|(0.5,0.0,0.5)}	−z+1/2,+y,−x+1/2
{−3^−_xxx|(0.5,0.0,0.5)}	−y+1/2,−z,−x+1/2
{−4^−_0y0|(0.5,0.0,0.5)}	+z+1/2,−y,−x+1/2
{−4^+_0y0|(0.5,0.0,0.5)}	−z+1/2,−y,+x+1/2
{−3^−_−x−xx|(0.5,0.0,0.5)}	−y+1/2,+z,+x+1/2
{m_xyx|(0.5,0.0,0.5)}	+z+1/2,+y,+x+1/2
{−3^−_x−x−x|(0.5,0.0,0.5)}	+y+1/2,−z,+x+1/2
{−3^−_−xx−x|(0.5,0.0,0.5)}	+y+1/2,+z,−x+1/2
{1|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z
{4^+_00z|(0.5,0.5,0.0)}	−y+1/2,+x+1/2,+z
{2_x00|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{3^+_xxx|(0.5,0.5,0.0)}	+z+1/2,+x+1/2,+y
{2_00z|(0.5,0.5,0.0)}	−x+1/2,−y+1/2,+z
{2_xx0|(0.5,0.5,0.0)}	+y+1/2,+x+1/2,−z

{2_0yy|(0.5,0.5,0.0)}	−x+1/2,+z+1/2,+y
{4^−_00z|(0.5,0.5,0.0)}	+y+1/2,−x+1/2,+z
{2_0y0|(0.5,0.5,0.0)}	−x+1/2,+y+1/2,−z
{3^+_x−x−x|(0.5,0.5,0.0)}	−z+1/2,−x+1/2,+y
{2_x−x0|(0.5,0.5,0.0)}	−y+1/2,−x+1/2,−z
{4^+_x00|(0.5,0.5,0.0)}	+x+1/2,−z+1/2,+y
{3^+_−xx−x|(0.5,0.5,0.0)}	+z+1/2,−x+1/2,−y
{2_0y−y|(0.5,0.5,0.0)}	−x+1/2,−z+1/2,−y
{3^+_−x−xx|(0.5,0.5,0.0)}	−z+1/2,+x+1/2,−y
{4^−_x00|(0.5,0.5,0.0)}	+x+1/2,+z+1/2,−y
{2_x0x|(0.5,0.5,0.0)}	+z+1/2,−y+1/2,+x
{3^−_xxx|(0.5,0.5,0.0)}	+y+1/2,+z+1/2,+x
{4^−_0y0|(0.5,0.5,0.0)}	−z+1/2,+y+1/2,+x
{4^+_0y0|(0.5,0.5,0.0)}	+z+1/2,+y+1/2,−x
{3^−_−x−xx|(0.5,0.5,0.0)}	+y+1/2,−z+1/2,−x
{2_−x0x|(0.5,0.5,0.0)}	−z+1/2,−y+1/2,−x
{3^−_x−x−x|(0.5,0.5,0.0)}	−y+1/2,+z+1/2,−x
{3^−_−xx−x|(0.5,0.5,0.0)}	−y+1/2,−z+1/2,+x
{−1|(0.5,0.5,0.0)}	−x+1/2,−y+1/2,−z
{−4^+_00z|(0.5,0.5,0.0)}	+y+1/2,−x+1/2,−z
{m_0yz|(0.5,0.5,0.0)}	−x+1/2,+y+1/2,+z
{−3^+_xxx|(0.5,0.5,0.0)}	−z+1/2,−x+1/2,−y
{m_xy0|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,−z
{m_x−xz|(0.5,0.5,0.0)}	−y+1/2,−x+1/2,+z
{m_xy−y|(0.5,0.5,0.0)}	+x+1/2,−z+1/2,−y
{−4^−_00z|(0.5,0.5,0.0)}	−y+1/2,+x+1/2,−z
{m_x0z|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,+z
{−3^+_x−x−x|(0.5,0.5,0.0)}	+z+1/2,+x+1/2,−y
{m_xxz|(0.5,0.5,0.0)}	+y+1/2,+x+1/2,+z
{−4^+_x00|(0.5,0.5,0.0)}	−x+1/2,+z+1/2,−y
{−3^+_−xx−x|(0.5,0.5,0.0)}	−z+1/2,+x+1/2,+y
{m_xyy|(0.5,0.5,0.0)}	+x+1/2,+z+1/2,+y
{−3^+_−x−xx|(0.5,0.5,0.0)}	+z+1/2,−x+1/2,+y
{−4^−_x00|(0.5,0.5,0.0)}	−x+1/2,−z+1/2,+y
{m_−xyz|(0.5,0.5,0.0)}	−z+1/2,+y+1/2,−x
{−3^−_xxx|(0.5,0.5,0.0)}	−y+1/2,−z+1/2,−x
{−4^−_0y0|(0.5,0.5,0.0)}	+z+1/2,−y+1/2,−x
{−4^+_0y0|(0.5,0.5,0.0)}	−z+1/2,−y+1/2,+x
{−3^−_−x−xx|(0.5,0.5,0.0)}	−y+1/2,+z+1/2,+x
{m_xyx|(0.5,0.5,0.0)}	+z+1/2,+y+1/2,+x
{−3^−_x−x−x|(0.5,0.5,0.0)}	+y+1/2,−z+1/2,+x
{−3^−_−xx−x|(0.5,0.5,0.0)}	+y+1/2,+z+1/2,−x

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space group: 226 {'Hall': '−F 4c 2 3', 'HM': 'F m −3 c'}
Crystal system: Cubic
+x,+y,+z
−y,+x,+z+1/2
+x,−y,−z
+z,+x,+y
....

Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.0,0.0,0.5)}	−y,+x,+z+1/2
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_00z|(0.0,0.0,0.0)}	−x,−y,+z
{2_xx0|(0.0,0.0,0.5)}	+y,+x,−z+1/2
{2_0yy|(0.0,0.0,0.5)}	−x,+z,+y+1/2
{4^−_00z|(0.0,0.0,0.5)}	+y,−x,+z+1/2
{2_0y0|(0.0,0.0,0.0)}	−x,+y,−z
{3^+_x−x−x|(0.0,0.0,0.0)}	−z,−x,+y
{2_x−x0|(0.0,0.0,0.5)}	−y,−x,−z+1/2
{4^+_x00|(0.0,0.0,0.5)}	+x,−z,+y+1/2
{3^+_−xx−x|(0.0,0.0,0.0)}	+z,−x,−y
{2_0y−y|(0.0,0.0,0.5)}	−x,−z,−y+1/2
{3^+_−x−xx|(0.0,0.0,0.0)}	−z,+x,−y
{4^−_x00|(0.0,0.0,0.5)}	+x,+z,−y+1/2
{2_x0x|(0.5,0.0,0.0)}	+z+1/2,−y,+x
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{4^−_0y0|(0.5,0.0,0.0)}	−z+1/2,+y,+x
{4^+_0y0|(0.5,0.0,0.0)}	+z+1/2,+y,−x
{3^−_−x−xx|(0.0,0.0,0.0)}	+y,−z,−x
{2_−x0x|(0.5,0.0,0.0)}	−z+1/2,−y,−x
{3^−_x−x−x|(0.0,0.0,0.0)}	−y,+z,−x
{3^−_−xx−x|(0.0,0.0,0.0)}	−y,−z,+x
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{−4^+_00z|(0.0,0.0,0.5)}	+y,−x,−z+1/2
{m_0yz|(0.0,0.0,0.0)}	−x,+y,+z
{−3^+_xxx|(0.0,0.0,0.0)}	−z,−x,−y
{m_xy0|(0.0,0.0,0.0)}	+x,+y,−z
{m_x−xz|(0.0,0.0,0.5)}	−y,−x,+z+1/2
{m_xy−y|(0.0,0.0,0.5)}	+x,−z,−y+1/2
{−4^−_00z|(0.0,0.0,0.5)}	−y,+x,−z+1/2
{m_x0z|(0.0,0.0,0.0)}	+x,−y,+z
{−3^+_x−x−x|(0.0,0.0,0.0)}	+z,+x,−y
{m_xxz|(0.0,0.0,0.5)}	+y,+x,+z+1/2
{−4^+_x00|(0.0,0.0,0.5)}	−x,+z,−y+1/2
{−3^+_−xx−x|(0.0,0.0,0.0)}	−z,+x,+y
{m_xyy|(0.0,0.0,0.5)}	+x,+z,+y+1/2
{−3^+_−x−xx|(0.0,0.0,0.0)}	+z,−x,+y
{−4^−_x00|(0.0,0.0,0.5)}	−x,−z,+y+1/2
{m_−xyz|(0.5,0.0,0.0)}	−z+1/2,+y,−x
{−3^−_xxx|(0.0,0.0,0.0)}	−y,−z,−x
{−4^−_0y0|(0.5,0.0,0.0)}	+z+1/2,−y,−x
{−4^+_0y0|(0.5,0.0,0.0)}	−z+1/2,−y,+x
{−3^−_−x−xx|(0.0,0.0,0.0)}	−y,+z,+x
{m_xyx|(0.5,0.0,0.0)}	+z+1/2,+y,+x
{−3^−_x−x−x|(0.0,0.0,0.0)}	+y,−z,+x
{−3^−_−xx−x|(0.0,0.0,0.0)}	+y,+z,−x
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{4^+_00z|(0.0,0.5,0.0)}	−y,+x+1/2,+z
{2_x00|(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2
{3^+_xxx|(0.0,0.5,0.5)}	+z,+x+1/2,+y+1/2

{2_00z|(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2	
{2_xx0|(0.0,0.5,0.0)}	+y,+x+1/2,−z	
{2_0yy|(0.0,0.5,0.0)}	−x,+z+1/2,+y	
{4^−_00z|(0.0,0.5,0.0)}	+y,−x+1/2,+z	
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2	
{3^+_x−x−x|(0.0,0.5,0.5)}	−z,−x+1/2,+y+1/2	
{2_x−x0|(0.0,0.5,0.0)}	−y,−x+1/2,−z	
{4^+_x00|(0.0,0.5,0.0)}	+x,−z+1/2,+y	
{3^+_−xx−x|(0.0,0.5,0.5)}	+z,−x+1/2,−y+1/2	
{2_0y−y|(0.0,0.5,0.0)}	−x,−z+1/2,−y	
{3^+_−x−xx|(0.0,0.5,0.5)}	−z,+x+1/2,−y+1/2	
{4^−_x00|(0.0,0.5,0.0)}	+x,+z+1/2,−y	
{2_x0x|(0.5,0.5,0.5)}	+z+1/2,−y+1/2,+x+1/2	
{3^−_xxx|(0.0,0.5,0.5)}	+y,+z+1/2,+x+1/2	
{4^−_0y0|(0.5,0.5,0.5)}	−z+1/2,+y+1/2,+x+1/2	
{4^+_0y0|(0.5,0.5,0.5)}	+z+1/2,+y+1/2,−x+1/2	
{3^−_−x−xx|(0.0,0.5,0.5)}	+y,−z+1/2,−x+1/2	
{2_−x0x|(0.5,0.5,0.5)}	−z+1/2,−y+1/2,−x+1/2	
{3^−_x−x−x|(0.0,0.5,0.5)}	−y,+z+1/2,−x+1/2	
{3^−_−xx−x|(0.0,0.5,0.5)}	−y,−z+1/2,+x+1/2	
{−1|(0.0,0.5,0.5)}	−x,−y+1/2,−z+1/2	
{−4^+_00z|(0.0,0.5,0.0)}	+y,−x+1/2,−z	
{m_0yz|(0.0,0.5,0.5)}	−x,+y+1/2,+z+1/2	
{−3^+_xxx|(0.0,0.5,0.5)}	−z,−x+1/2,−y+1/2	
{m_xy0|(0.0,0.5,0.5)}	+x,+y+1/2,−z+1/2	
{m_x−xz|(0.0,0.5,0.0)}	−y,−x+1/2,+z	
{m_xy−y|(0.0,0.5,0.0)}	+x,−z+1/2,−y	
{−4^−_00z|(0.0,0.5,0.0)}	−y,+x+1/2,−z	
{m_x0z|(0.0,0.5,0.5)}	+x,−y+1/2,+z+1/2	
{−3^+_x−x−x|(0.0,0.5,0.5)}	+z,+x+1/2,−y+1/2	
{m_xxz|(0.0,0.5,0.0)}	+y,+x+1/2,+z	
{−4^+_x00|(0.0,0.5,0.0)}	−x,+z+1/2,−y	
{−3^+_−xx−x|(0.0,0.5,0.5)}	−z,+x+1/2,+y+1/2	
{m_xyy|(0.0,0.5,0.0)}	+x,+z+1/2,+y	
{−3^+_−x−xx|(0.0,0.5,0.5)}	+z,−x+1/2,+y+1/2	
{−4^−_x00|(0.0,0.5,0.0)}	−x,−z+1/2,+y	
{m_−xyz|(0.5,0.5,0.5)}	−z+1/2,+y+1/2,−x+1/2	
{−3^−_xxx|(0.0,0.5,0.5)}	−y,−z+1/2,−x+1/2	
{−4^−_0y0|(0.5,0.5,0.5)}	+z+1/2,−y+1/2,−x+1/2	
{−4^+_0y0|(0.5,0.5,0.5)}	−z+1/2,−y+1/2,+x+1/2	
{−3^−_−x−xx|(0.0,0.5,0.5)}	−y,+z+1/2,+x+1/2	
{m_xyx|(0.5,0.5,0.5)}	+z+1/2,+y+1/2,+x+1/2	
{−3^−_x−x−x|(0.0,0.5,0.5)}	+y,−z+1/2,+x+1/2	
{−3^−_−xx−x|(0.0,0.5,0.5)}	+y,+z+1/2,−x+1/2	
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2	
{4^+_00z|(0.5,0.0,0.0)}	−y+1/2,+x,+z	
{2_x00|(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2	
{3^+_xxx|(0.5,0.0,0.5)}	+z+1/2,+x,+y+1/2	
{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2	
{2_xx0|(0.5,0.0,0.0)}	+y+1/2,+x,−z	
{2_0yy|(0.5,0.0,0.0)}	−x+1/2,+z,+y	
{4^−_00z|(0.5,0.0,0.0)}	+y+1/2,−x,+z	
{2_0y0|(0.5,0.0,0.5)}	−x+1/2,+y,−z+1/2	
{3^+_x−x−x|(0.5,0.0,0.5)}	−z+1/2,−x,+y+1/2	

	{2_x-x0|(0.5,0.0,0.0)}		−y+1/2,−x,−z	
	{4^+_x00|(0.5,0.0,0.0)}		+x+1/2,−z,+y	
	{3^+_-xx-x|(0.5,0.0,0.5)}		+z+1/2,−x,−y+1/2	
	{2_0y-y|(0.5,0.0,0.0)}		−x+1/2,−z,−y	
	{3^+_-x-xx|(0.5,0.0,0.5)}		−z+1/2,+x,−y+1/2	
	{4^-_x00|(0.5,0.0,0.0)}		+x+1/2,+z,−y	
	{2_x0x|(0.0,0.0,0.5)}		+z,−y,+x+1/2	
	{3^-_xxx|(0.5,0.0,0.5)}		+y+1/2,+z,+x+1/2	
	{4^-_0y0|(0.0,0.0,0.5)}		−z,+y,+x+1/2	
	{4^+_0y0|(0.0,0.0,0.5)}		+z,+y,−x+1/2	
	{3^-_-x-xx|(0.5,0.0,0.5)}		+y+1/2,−z,−x+1/2	
	{2_-x0x|(0.0,0.0,0.5)}		−z,−y,−x+1/2	
	{3^-_x-x-x|(0.5,0.0,0.5)}		−y+1/2,+z,−x+1/2	
	{3^-_-xx-x|(0.5,0.0,0.5)}		−y+1/2,−z,+x+1/2	
	{−1|(0.5,0.0,0.5)}		−x+1/2,−y,−z+1/2	
	{−4^+_00z|(0.5,0.0,0.0)}		+y+1/2,−x,−z	
	{m_0yz|(0.5,0.0,0.5)}		−x+1/2,+y,+z+1/2	
	{−3^+_xxx|(0.5,0.0,0.5)}		−z+1/2,−x,−y+1/2	
	{m_xy0|(0.5,0.0,0.5)}		+x+1/2,+y,−z+1/2	
	{m_x-xz|(0.5,0.0,0.0)}		−y+1/2,−x,+z	
	{m_xy-y|(0.5,0.0,0.0)}		+x+1/2,−z,−y	
	{−4^-_00z|(0.5,0.0,0.0)}		−y+1/2,+x,−z	
	{m_x0z|(0.5,0.0,0.5)}		+x+1/2,−y,+z+1/2	
	{−3^+_x-x-x|(0.5,0.0,0.5)}		+z+1/2,+x,−y+1/2	
	{m_xxz|(0.5,0.0,0.0)}		+y+1/2,+x,+z	
	{−4^+_x00|(0.5,0.0,0.0)}		−x+1/2,+z,−y	
	{−3^+_-xx-x|(0.5,0.0,0.5)}		−z+1/2,+x,+y+1/2	
	{m_xyy|(0.5,0.0,0.0)}		+x+1/2,+z,+y	
	{−3^+_-x-xx|(0.5,0.0,0.5)}		+z+1/2,−x,+y+1/2	
	{−4^-_x00|(0.5,0.0,0.0)}		−x+1/2,−z,+y	
	{m_-xyz|(0.0,0.0,0.5)}		−z,+y,−x+1/2	
	{−3^-_xxx|(0.5,0.0,0.5)}		−y+1/2,−z,−x+1/2	
	{−4^-_0y0|(0.0,0.0,0.5)}		+z,−y,−x+1/2	
	{−4^+_0y0|(0.0,0.0,0.5)}		−z,−y,+x+1/2	
	{−3^-_-x-xx|(0.5,0.0,0.5)}		−y+1/2,+z,+x+1/2	
	{m_xyx|(0.0,0.0,0.5)}		+z,+y,+x+1/2	
	{−3^-_x-x-x|(0.5,0.0,0.5)}		+y+1/2,−z,+x+1/2	
	{−3^-_-xx-x|(0.5,0.0,0.5)}		+y+1/2,+z,−x+1/2	
	{1|(0.5,0.5,0.0)}		+x+1/2,+y+1/2,+z	
	{4^+_00z|(0.5,0.5,0.5)}		−y+1/2,+x+1/2,+z+1/2	
	{2_x00|(0.5,0.5,0.0)}		+x+1/2,−y+1/2,−z	
	{3^+_xxx|(0.5,0.5,0.0)}		+z+1/2,+x+1/2,+y	
	{2_00z|(0.5,0.5,0.0)}		−x+1/2,−y+1/2,+z	
	{2_xx0|(0.5,0.5,0.5)}		+y+1/2,+x+1/2,−z+1/2	
	{2_0yy|(0.5,0.5,0.5)}		−x+1/2,+z+1/2,+y+1/2	
	{4^-_00z|(0.5,0.5,0.5)}		+y+1/2,−x+1/2,+z+1/2	
	{2_0y0|(0.5,0.5,0.0)}		−x+1/2,+y+1/2,−z	
	{3^+_x-x-x|(0.5,0.5,0.0)}		−z+1/2,−x+1/2,+y	
	{2_x-x0|(0.5,0.5,0.5)}		−y+1/2,−x+1/2,−z+1/2	
	{4^+_x00|(0.5,0.5,0.5)}		+x+1/2,−z+1/2,+y+1/2	
	{3^+_-xx-x|(0.5,0.5,0.0)}		+z+1/2,−x+1/2,−y	
	{2_0y-y|(0.5,0.5,0.5)}		−x+1/2,−z+1/2,−y+1/2	
	{3^+_-x-xx|(0.5,0.5,0.0)}		−z+1/2,+x+1/2,−y	
	{4^-_x00|(0.5,0.5,0.5)}		+x+1/2,+z+1/2,−y+1/2	

{2_x0x|(0.0,0.5,0.0)}	+z,−y+1/2,+x
{3^−_xxx|(0.5,0.5,0.0)}	+y+1/2,+z+1/2,+x
{4^−_0y0|(0.0,0.5,0.0)}	−z,+y+1/2,+x
{4^+_0y0|(0.0,0.5,0.0)}	+z,+y+1/2,−x
{3^−_−x−xx|(0.5,0.5,0.0)}	+y+1/2,−z+1/2,−x
{2_−x0x|(0.0,0.5,0.0)}	−z,−y+1/2,−x
{3^−_x−x−x|(0.5,0.5,0.0)}	−y+1/2,+z+1/2,−x
{3^−_−xx−x|(0.5,0.5,0.0)}	−y+1/2,−z+1/2,+x
{−1|(0.5,0.5,0.0)}	−x+1/2,−y+1/2,−z
{−4^+_00z|(0.5,0.5,0.5)}	+y+1/2,−x+1/2,−z+1/2
{m_0yz|(0.5,0.5,0.0)}	−x+1/2,+y+1/2,+z
{−3^+_xxx|(0.5,0.5,0.0)}	−z+1/2,−x+1/2,−y
{m_xy0|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,−z
{m_x−xz|(0.5,0.5,0.5)}	−y+1/2,−x+1/2,+z+1/2
{m_xy−y|(0.5,0.5,0.5)}	+x+1/2,−z+1/2,−y+1/2
{−4^−_00z|(0.5,0.5,0.5)}	−y+1/2,+x+1/2,−z+1/2
{m_x0z|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,+z
{−3^+_x−x−x|(0.5,0.5,0.0)}	+z+1/2,+x+1/2,−y
{m_xxz|(0.5,0.5,0.5)}	+y+1/2,+x+1/2,+z+1/2
{−4^+_x00|(0.5,0.5,0.5)}	−x+1/2,+z+1/2,−y+1/2
{−3^+_−xx−x|(0.5,0.5,0.0)}	−z+1/2,+x+1/2,+y
{m_xyy|(0.5,0.5,0.5)}	+x+1/2,+z+1/2,+y+1/2
{−3^+_−x−xx|(0.5,0.5,0.0)}	+z+1/2,−x+1/2,+y
{−4^−_x00|(0.5,0.5,0.5)}	−x+1/2,−z+1/2,+y+1/2
{m_−xyz|(0.0,0.5,0.0)}	−z,+y+1/2,−x
{−3^−_xxx|(0.5,0.5,0.0)}	−y+1/2,−z+1/2,−x
{−4^−_0y0|(0.0,0.5,0.0)}	+z,−y+1/2,−x
{−4^+_0y0|(0.0,0.5,0.0)}	−z,−y+1/2,+x
{−3^−_−x−xx|(0.5,0.5,0.0)}	−y+1/2,+z+1/2,+x
{m_xyx|(0.0,0.5,0.0)}	+z,+y+1/2,+x
{−3^−_x−x−x|(0.5,0.5,0.0)}	+y+1/2,−z+1/2,+x
{−3^−_−xx−x|(0.5,0.5,0.0)}	+y+1/2,+z+1/2,−x

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space group: 227:1 {'Hall': ' F 4d 2 3 −1d', 'HM': 'F d −3 m:1'}
Crystal system: Cubic
Setting: 1
+x,+y,+z
−y+1/4,+x+1/4,+z+1/4
+x,−y,−z
+z,+x,+y
−x+1/4,−y+1/4,−z+1/4

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Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.25,0.25,0.25)}	−y+1/4,+x+1/4,+z+1/4
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{−1|(0.25,0.25,0.25)}	−x+1/4,−y+1/4,−z+1/4
{2_00z|(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2

{2_xx0	(0.25,0.25,0.25)}	+y+1/4,+x+1/4,−z+1/4
{2_0yy	(0.25,0.25,0.25)}	−x+1/4,+z+1/4,+y+1/4
{−4^+_00z	(0.0,0.5,0.5)}	+y,−x+1/2,−z+1/2
{4^−_00z	(0.75,0.25,0.75)}	+y+3/4,−x+1/4,+z+3/4
{2_0y0	(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2
{3^+_x−x−x	(0.0,0.5,0.5)}	−z,−x+1/2,+y+1/2
{m_xy0	(0.75,0.25,0.75)}	+x+3/4,+y+1/4,−z+3/4
{2_x−x0	(0.75,0.25,0.75)}	−y+3/4,−x+1/4,−z+3/4
{4^+_x00	(0.75,0.25,0.75)}	+x+3/4,−z+1/4,+y+3/4
{−4^−_00z	(0.0,0.0,0.0)}	−y,+x,−z
{3^+_−xx−x	(0.0,0.0,0.0)}	+z,−x,−y
{m_0yz	(0.25,0.75,0.75)}	−x+1/4,+y+3/4,+z+3/4
{2_0y−y	(0.25,0.75,0.75)}	−x+1/4,−z+3/4,−y+3/4
{m_xxz	(0.0,0.5,0.5)}	+y,+x+1/2,+z+1/2
{3^+_−x−xx	(0.0,0.5,0.5)}	−z,+x+1/2,−y+1/2
{m_x0z	(0.75,0.75,0.25)}	+x+3/4,−y+3/4,+z+1/4
{4^−_x00	(0.75,0.75,0.25)}	+x+3/4,+z+3/4,−y+1/4
{m_x−xz	(0.0,0.0,0.0)}	−y,−x,+z
{1	(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{4^+_00z	(0.25,0.75,0.75)}	−y+1/4,+x+3/4,+z+3/4
{2_x00	(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2
{3^+_xxx	(0.0,0.5,0.5)}	+z,+x+1/2,+y+1/2
{−1	(0.25,0.75,0.75)}	−x+1/4,−y+3/4,−z+3/4
{2_00z	(0.0,0.0,0.0)}	−x,−y,+z
{2_xx0	(0.25,0.75,0.75)}	+y+1/4,+x+3/4,−z+3/4
{2_0yy	(0.25,0.75,0.75)}	−x+1/4,+z+3/4,+y+3/4
{−4^+_00z	(0.0,0.0,0.0)}	+y,−x,−z
{4^−_00z	(0.75,0.75,0.25)}	+y+3/4,−x+3/4,+z+1/4
{2_0y0	(0.0,0.0,0.0)}	−x,+y,−z
{3^+_x−x−x	(0.0,0.0,0.0)}	−z,−x,+y
{m_xy0	(0.75,0.75,0.25)}	+x+3/4,+y+3/4,−z+1/4
{2_x−x0	(0.75,0.75,0.25)}	−y+3/4,−x+3/4,−z+1/4
{4^+_x00	(0.75,0.75,0.25)}	+x+3/4,−z+3/4,+y+1/4
{−4^−_00z	(0.0,0.5,0.5)}	−y,+x+1/2,−z+1/2
{3^+_−xx−x	(0.0,0.5,0.5)}	+z,−x+1/2,−y+1/2
{m_0yz	(0.25,0.25,0.25)}	−x+1/4,+y+1/4,+z+1/4
{2_0y−y	(0.25,0.25,0.25)}	−x+1/4,−z+1/4,−y+1/4
{m_xxz	(0.0,0.0,0.0)}	+y,+x,+z
{3^+_−x−xx	(0.0,0.0,0.0)}	−z,+x,−y
{m_x0z	(0.75,0.25,0.75)}	+x+3/4,−y+1/4,+z+3/4
{4^−_x00	(0.75,0.25,0.75)}	+x+3/4,+z+1/4,−y+3/4
{m_x−xz	(0.0,0.5,0.5)}	−y,−x+1/2,+z+1/2
{1	(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{4^+_00z	(0.75,0.25,0.75)}	−y+3/4,+x+1/4,+z+3/4
{2_x00	(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{3^+_xxx	(0.5,0.0,0.5)}	+z+1/2,+x,+y+1/2
{−1	(0.75,0.25,0.75)}	−x+3/4,−y+1/4,−z+3/4
{2_00z	(0.5,0.5,0.0)}	−x+1/2,−y+1/2,+z
{2_xx0	(0.75,0.25,0.75)}	+y+3/4,+x+1/4,−z+3/4
{2_0yy	(0.75,0.25,0.75)}	−x+3/4,+z+1/4,+y+3/4
{−4^+_00z	(0.5,0.5,0.0)}	+y+1/2,−x+1/2,−z
{4^−_00z	(0.25,0.25,0.25)}	+y+1/4,−x+1/4,+z+1/4
{2_0y0	(0.5,0.5,0.0)}	−x+1/2,+y+1/2,−z
{3^+_x−x−x	(0.5,0.5,0.0)}	−z+1/2,−x+1/2,+y

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|    {m_xy0|(0.25,0.25,0.25)}   |  +x+1/4,+y+1/4,−z+1/4  |
|   {2_x−0|(0.25,0.25,0.25)}    |  −y+1/4,−x+1/4,−z+1/4  |
|  {4^+_x00|(0.25,0.25,0.25)}   |  +x+1/4,−z+1/4,+y+1/4  |
|   {−4^−_00z|(0.5,0.0,0.5)}    |    −y+1/2,+x,−z+1/2    |
|  {3^+_−xx−x|(0.5,0.0,0.5)}    |    +z+1/2,−x,−y+1/2    |
|   {m_0yz|(0.75,0.75,0.25)}    |   −x+3/4,+y+3/4,+z+1/4  |
|   {2_0y−y|(0.75,0.75,0.25)}   |  −x+3/4,−z+3/4,−y+1/4  |
|    {m_xxz|(0.5,0.5,0.0)}      |   +y+1/2,+x+1/2,+z     |
|  {3^+_−x−xx|(0.5,0.5,0.0)}    |   −z+1/2,+x+1/2,−y     |
|   {m_x0z|(0.25,0.75,0.75)}    |  +x+1/4,−y+3/4,+z+3/4  |
|  {4^−_x00|(0.25,0.75,0.75)}   |  +x+1/4,+z+3/4,−y+3/4  |
|   {m_x−xz|(0.5,0.0,0.5)}      |    −y+1/2,−x,+z+1/2    |
|      {1|(0.5,0.5,0.0)}        |   +x+1/2,+y+1/2,+z     |
|  {4^+_00z|(0.75,0.75,0.25)}   |  −y+3/4,+x+3/4,+z+1/4  |
|     {2_x00|(0.5,0.5,0.0)}     |   +x+1/2,−y+1/2,−z     |
|   {3^+_xxx|(0.5,0.5,0.0)}     |   +z+1/2,+x+1/2,+y     |
|    {−1|(0.75,0.75,0.25)}      |  −x+3/4,−y+3/4,−z+1/4  |
|    {2_00z|(0.5,0.0,0.5)}      |    −x+1/2,−y,+z+1/2    |
|   {2_xx0|(0.75,0.75,0.25)}    |  +y+3/4,+x+3/4,−z+1/4  |
|   {2_0yy|(0.75,0.75,0.25)}    |  −x+3/4,+z+3/4,+y+1/4  |
|   {−4^+_00z|(0.5,0.0,0.5)}    |    +y+1/2,−x,−z+1/2    |
|  {4^−_00z|(0.25,0.75,0.75)}   |  +y+1/4,−x+3/4,+z+3/4  |
|    {2_0y0|(0.5,0.0,0.5)}      |    −x+1/2,+y,−z+1/2    |
|  {3^+_x−x−x|(0.5,0.0,0.5)}    |    −z+1/2,−x,+y+1/2    |
|   {m_xy0|(0.25,0.75,0.75)}    |  +x+1/4,+y+3/4,−z+3/4  |
|   {2_x−0|(0.25,0.75,0.75)}    |  −y+1/4,−x+3/4,−z+3/4  |
|  {4^+_x00|(0.25,0.75,0.75)}   |  +x+1/4,−z+3/4,+y+3/4  |
|   {−4^−_00z|(0.5,0.5,0.0)}    |    −y+1/2,+x+1/2,−z    |
|  {3^+_−xx−x|(0.5,0.5,0.0)}    |    +z+1/2,−x+1/2,−y    |
|   {m_0yz|(0.75,0.25,0.75)}    |  −x+3/4,+y+1/4,+z+3/4  |
|   {2_0y−y|(0.75,0.25,0.75)}   |  −x+3/4,−z+1/4,−y+3/4  |
|    {m_xxz|(0.5,0.0,0.5)}      |    +y+1/2,+x,+z+1/2    |
|  {3^+_−x−xx|(0.5,0.0,0.5)}    |    −z+1/2,+x,−y+1/2    |
|   {m_x0z|(0.25,0.25,0.25)}    |  +x+1/4,−y+1/4,+z+1/4  |
|  {4^−_x00|(0.25,0.25,0.25)}   |  +x+1/4,+z+1/4,−y+1/4  |
|   {m_x−xz|(0.5,0.5,0.0)}      |    −y+1/2,−x+1/2,+z    |
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space group: 227:2 {'Hall': '−F 4vw 2vw 3', 'HM': 'F d −3 m:2'}
Crystal system: Cubic
Setting: 2
+x,+y,+z
−y,+x+1/4,+z+1/4
+x,−y+1/4,−z+1/4
+z,+x,+y
```

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Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.0,0.25,0.25)}	−y,+x+1/4,+z+1/4
{2_x00|(0.0,0.25,0.25)}	+x,−y+1/4,−z+1/4

{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_00z|(0.75,0.25,0.5)}	−x+3/4,−y+1/4,+z+1/2
{2_xx0|(0.75,0.25,0.5)}	+y+3/4,+x+1/4,−z+1/2
{2_0yy|(0.0,0.25,0.25)}	−x,+z+1/4,+y+1/4
{4^−_00z|(0.75,0.0,0.75)}	+y+3/4,−x,+z+3/4
{2_0y0|(0.75,0.0,0.75)}	−x+3/4,+y,−z+3/4
{3^+_x−x−x|(0.75,0.25,0.5)}	−z+3/4,−x+1/4,+y+1/2
{2_x−x0|(0.0,0.0,0.0)}	−y,−x,−z
{4^+_x00|(0.75,0.0,0.75)}	+x+3/4,−z,+y+3/4
{3^+_−xx−x|(0.0,0.25,0.25)}	+z,−x+1/4,−y+1/4
{2_0y−y|(0.0,0.0,0.0)}	−x,−z,−y
{3^+_−x−xx|(0.75,0.0,0.75)}	−z+3/4,+x,−y+3/4
{4^−_x00|(0.75,0.25,0.5)}	+x+3/4,+z+1/4,−y+1/2
{2_x0x|(0.25,0.0,0.25)}	+z+1/4,−y,+x+1/4
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{4^−_0y0|(0.5,0.75,0.25)}	−z+1/2,+y+3/4,+x+1/4
{4^+_0y0|(0.75,0.75,0.0)}	+z+3/4,+y+3/4,−x
{3^−_−x−xx|(0.5,0.75,0.25)}	+y+1/2,−z+3/4,−x+1/4
{2_−x0x|(0.0,0.0,0.0)}	−z,−y,−x
{3^−_x−x−x|(0.25,0.0,0.25)}	−y+1/4,+z,−x+1/4
{3^−_−xx−x|(0.75,0.75,0.0)}	−y+3/4,−z+3/4,+x
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{−4^+_00z|(0.0,0.25,0.25)}	+y,−x+1/4,−z+1/4
{m_0yz|(0.0,0.25,0.25)}	−x,+y+1/4,+z+1/4
{−3^+_xxx|(0.0,0.0,0.0)}	−z,−x,−y
{m_xy0|(0.75,0.25,0.5)}	+x+3/4,+y+1/4,−z+1/2
{m_x−xz|(0.75,0.25,0.5)}	−y+3/4,−x+1/4,+z+1/2
{m_xy−y|(0.0,0.25,0.25)}	+x,−z+1/4,−y+1/4
{−4^−_00z|(0.75,0.0,0.75)}	−y+3/4,+x,−z+3/4
{m_x0z|(0.75,0.0,0.75)}	+x+3/4,−y,+z+3/4
{−3^+_x−x−x|(0.75,0.25,0.5)}	+z+3/4,+x+1/4,−y+1/2
{m_xxz|(0.0,0.0,0.0)}	+y,+x,+z
{−4^+_x00|(0.75,0.0,0.75)}	−x+3/4,+z,−y+3/4
{−3^+_−xx−x|(0.0,0.25,0.25)}	−z,+x+1/4,+y+1/4
{m_xyy|(0.0,0.0,0.0)}	+x,+z,+y
{−3^+_−x−xx|(0.75,0.0,0.75)}	+z+3/4,−x,+y+3/4
{−4^−_x00|(0.75,0.25,0.5)}	−x+3/4,−z+1/4,+y+1/2
{m_−xyz|(0.25,0.0,0.25)}	−z+1/4,+y,−x+1/4
{−3^−_xxx|(0.0,0.0,0.0)}	−y,−z,−x
{−4^−_0y0|(0.5,0.75,0.25)}	+z+1/2,−y+3/4,−x+1/4
{−4^+_0y0|(0.75,0.75,0.0)}	−z+3/4,−y+3/4,+x
{−3^−_−x−xx|(0.5,0.75,0.25)}	−y+1/2,+z+3/4,+x+1/4
{m_xyx|(0.0,0.0,0.0)}	+z,+y,+x
{−3^−_x−x−x|(0.25,0.0,0.25)}	+y+1/4,−z,+x+1/4
{−3^−_−xx−x|(0.75,0.75,0.0)}	+y+3/4,+z+3/4,−x
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{4^+_00z|(0.0,0.75,0.75)}	−y,+x+3/4,+z+3/4
{2_x00|(0.0,0.75,0.75)}	+x,−y+3/4,−z+3/4
{3^+_xxx|(0.0,0.5,0.5)}	+z,+x+1/2,+y+1/2
{2_00z|(0.75,0.75,0.0)}	−x+3/4,−y+3/4,+z
{2_xx0|(0.75,0.75,0.0)}	+y+3/4,+x+3/4,−z
{2_0yy|(0.0,0.75,0.75)}	−x,+z+3/4,+y+3/4
{4^−_00z|(0.75,0.5,0.25)}	+y+3/4,−x+1/2,+z+1/4
{2_0y0|(0.75,0.5,0.25)}	−x+3/4,+y+1/2,−z+1/4

{3^+_x−x−x|(0.75,0.75,0.0)}	−z+3/4,−x+3/4,+y
{2_x−x0|(0.0,0.5,0.5)}	−y,−x+1/2,−z+1/2
{4^+_x00|(0.75,0.5,0.25)}	+x+3/4,−z+1/2,+y+1/4
{3^+_−xx−x|(0.0,0.75,0.75)}	+z,−x+3/4,−y+3/4
{2_0y−y|(0.0,0.5,0.5)}	−x,−z+1/2,−y+1/2
{3^+_−x−xx|(0.75,0.5,0.25)}	−z+3/4,+x+1/2,−y+1/4
{4^−_x00|(0.75,0.75,0.0)}	+x+3/4,+z+3/4,−y
{2_x0x|(0.25,0.5,0.75)}	+z+1/4,−y+1/2,+x+3/4
{3^−_xxx|(0.0,0.5,0.5)}	+y,+z+1/2,+x+1/2
{4^−_0y0|(0.5,0.25,0.75)}	−z+1/2,+y+1/4,+x+3/4
{4^+_0y0|(0.75,0.25,0.5)}	+z+3/4,+y+1/4,−x+1/2
{3^−_−x−xx|(0.5,0.25,0.75)}	+y+1/2,−z+1/4,−x+3/4
{2_−x0x|(0.0,0.5,0.5)}	−z,−y+1/2,−x+1/2
{3^−_x−x−x|(0.25,0.5,0.75)}	−y+1/4,+z+1/2,−x+3/4
{3^−_−xx−x|(0.75,0.25,0.5)}	−y+3/4,−z+1/4,+x+1/2
{−1|(0.0,0.5,0.5)}	−x,−y+1/2,−z+1/2
{−4^+_00z|(0.0,0.75,0.75)}	+y,−x+3/4,−z+3/4
{m_0yz|(0.0,0.75,0.75)}	−x,+y+3/4,+z+3/4
{−3^+_xxx|(0.0,0.5,0.5)}	−z,−x+1/2,−y+1/2
{m_xy0|(0.75,0.75,0.0)}	+x+3/4,+y+3/4,−z
{m_x−xz|(0.75,0.75,0.0)}	−y+3/4,−x+3/4,+z
{m_xy−y|(0.0,0.75,0.75)}	+x,−z+3/4,−y+3/4
{−4^−_00z|(0.75,0.5,0.25)}	−y+3/4,+x+1/2,−z+1/4
{m_x0z|(0.75,0.5,0.25)}	+x+3/4,−y+1/2,+z+1/4
{−3^+_x−x−x|(0.75,0.75,0.0)}	+z+3/4,+x+3/4,−y
{m_xxz|(0.0,0.5,0.5)}	+y,+x+1/2,+z+1/2
{−4^+_x00|(0.75,0.5,0.25)}	−x+3/4,+z+1/2,−y+1/4
{−3^+_−xx−x|(0.0,0.75,0.75)}	−z,+x+3/4,+y+3/4
{m_xyy|(0.0,0.5,0.5)}	+x,+z+1/2,+y+1/2
{−3^+_−x−xx|(0.75,0.5,0.25)}	+z+3/4,−x+1/2,+y+1/4
{−4^−_x00|(0.75,0.75,0.0)}	−x+3/4,−z+3/4,+y
{m_−xyz|(0.25,0.5,0.75)}	−z+1/4,+y+1/2,−x+3/4
{−3^−_xxx|(0.0,0.5,0.5)}	−y,−z+1/2,−x+1/2
{−4^−_0y0|(0.5,0.25,0.75)}	+z+1/2,−y+1/4,−x+3/4
{−4^+_0y0|(0.75,0.25,0.5)}	−z+3/4,−y+1/4,+x+1/2
{−3^−_−x−xx|(0.5,0.25,0.75)}	−y+1/2,+z+1/4,+x+3/4
{m_xyx|(0.0,0.5,0.5)}	+z,+y+1/2,+x+1/2
{−3^−_x−x−x|(0.25,0.5,0.75)}	+y+1/4,−z+1/2,+x+3/4
{−3^−_−xx−x|(0.75,0.25,0.5)}	+y+3/4,+z+1/4,−x+1/2
{1|(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{4^+_00z|(0.5,0.25,0.75)}	−y+1/2,+x+1/4,+z+3/4
{2_x00|(0.5,0.25,0.75)}	+x+1/2,−y+1/4,−z+3/4
{3^+_xxx|(0.5,0.0,0.5)}	+z+1/2,+x,+y+1/2
{2_00z|(0.25,0.25,0.0)}	−x+1/4,−y+1/4,+z
{2_xx0|(0.25,0.25,0.0)}	+y+1/4,+x+1/4,−z
{2_0yy|(0.5,0.25,0.75)}	−x+1/2,+z+1/4,+y+3/4
{4^−_00z|(0.25,0.0,0.25)}	+y+1/4,−x,+z+1/4
{2_0y0|(0.25,0.0,0.25)}	−x+1/4,+y,−z+1/4
{3^+_x−x−x|(0.25,0.25,0.0)}	−z+1/4,−x+1/4,+y
{2_x−x0|(0.5,0.0,0.5)}	−y+1/2,−x,−z+1/2
{4^+_x00|(0.25,0.0,0.25)}	+x+1/4,−z,+y+1/4
{3^+_−xx−x|(0.5,0.25,0.75)}	+z+1/2,−x+1/4,−y+3/4
{2_0y−y|(0.5,0.0,0.5)}	−x+1/2,−z,−y+1/2
{3^+_−x−xx|(0.25,0.0,0.25)}	−z+1/4,+x,−y+1/4

{4^−_x00|(0.25,0.25,0.0)}	+x+1/4,+z+1/4,−y
{2_x0x|(0.75,0.0,0.75)}	+z+3/4,−y,+x+3/4
{3^−_xxx|(0.5,0.0,0.5)}	+y+1/2,+z,+x+1/2
{4^−_0y0|(0.0,0.75,0.75)}	−z,+y+3/4,+x+3/4
{4^+_0y0|(0.25,0.75,0.5)}	+z+1/4,+y+3/4,−x+1/2
{3^−_−x−xx|(0.0,0.75,0.75)}	+y,−z+3/4,−x+3/4
{2_−x0x|(0.5,0.0,0.5)}	−z+1/2,−y,−x+1/2
{3^−_x−x−x|(0.75,0.0,0.75)}	−y+3/4,+z,−x+3/4
{3^−_−xx−x|(0.25,0.75,0.5)}	−y+1/4,−z+3/4,+x+1/2
{−1|(0.5,0.0,0.5)}	−x+1/2,−y,−z+1/2
{−4^+_00z|(0.5,0.25,0.75)}	+y+1/2,−x+1/4,−z+3/4
{m_0yz|(0.5,0.25,0.75)}	−x+1/2,+y+1/4,+z+3/4
{−3^+_xxx|(0.5,0.0,0.5)}	−z+1/2,−x,−y+1/2
{m_xy0|(0.25,0.25,0.0)}	+x+1/4,+y+1/4,−z
{m_x−xz|(0.25,0.25,0.0)}	−y+1/4,−x+1/4,+z
{m_xy−y|(0.5,0.25,0.75)}	+x+1/2,−z+1/4,−y+3/4
{−4^−_00z|(0.25,0.0,0.25)}	−y+1/4,+x,−z+1/4
{m_x0z|(0.25,0.0,0.25)}	+x+1/4,−y,+z+1/4
{−3^+_x−x−x|(0.25,0.25,0.0)}	+z+1/4,+x+1/4,−y
{m_xxz|(0.5,0.0,0.5)}	+y+1/2,+x,+z+1/2
{−4^+_x00|(0.25,0.0,0.25)}	−x+1/4,+z,−y+1/4
{−3^+_−xx−x|(0.5,0.25,0.75)}	−z+1/2,+x+1/4,+y+3/4
{m_xyy|(0.5,0.0,0.5)}	+x+1/2,+z,+y+1/2
{−3^+_−x−xx|(0.25,0.0,0.25)}	+z+1/4,−x,+y+1/4
{−4^−_x00|(0.25,0.25,0.0)}	−x+1/4,−z+1/4,+y
{m_−xyz|(0.75,0.0,0.75)}	−z+3/4,+y,−x+3/4
{−3^−_xxx|(0.5,0.0,0.5)}	−y+1/2,−z,−x+1/2
{−4^−_0y0|(0.0,0.75,0.75)}	+z,−y+3/4,−x+3/4
{−4^+_0y0|(0.25,0.75,0.5)}	−z+1/4,−y+3/4,+x+1/2
{−3^−_−x−xx|(0.0,0.75,0.75)}	−y,+z+3/4,+x+3/4
{m_xyx|(0.5,0.0,0.5)}	+z+1/2,+y,+x+1/2
{−3^−_x−x−x|(0.75,0.0,0.75)}	+y+3/4,−z,+x+3/4
{−3^−_−xx−x|(0.25,0.75,0.5)}	+y+1/4,+z+3/4,−x+1/2
{1|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z
{4^+_00z|(0.5,0.75,0.25)}	−y+1/2,+x+3/4,+z+1/4
{2_x00|(0.5,0.75,0.25)}	+x+1/2,−y+3/4,−z+1/4
{3^+_xxx|(0.5,0.5,0.0)}	+z+1/2,+x+1/2,+y
{2_00z|(0.25,0.75,0.5)}	−x+1/4,−y+3/4,+z+1/2
{2_xx0|(0.25,0.75,0.5)}	+y+1/4,+x+3/4,−z+1/2
{2_0yy|(0.5,0.75,0.25)}	−x+1/2,+z+3/4,+y+1/4
{4^−_00z|(0.25,0.5,0.75)}	+y+1/4,−x+1/2,+z+3/4
{2_0y0|(0.25,0.5,0.75)}	−x+1/4,+y+1/2,−z+3/4
{3^+_x−x−x|(0.25,0.75,0.5)}	−z+1/4,−x+3/4,+y+1/2
{2_x−x0|(0.5,0.5,0.0)}	−y+1/2,−x+1/2,−z
{4^+_x00|(0.25,0.5,0.75)}	+x+1/4,−z+1/2,+y+3/4
{3^+_−xx−x|(0.5,0.75,0.25)}	+z+1/2,−x+3/4,−y+1/4
{2_0y−y|(0.5,0.5,0.0)}	−x+1/2,−z+1/2,−y
{3^+_−x−xx|(0.25,0.5,0.75)}	−z+1/4,+x+1/2,−y+3/4
{4^−_x00|(0.25,0.75,0.5)}	+x+1/4,+z+3/4,−y+1/2
{2_x0x|(0.75,0.5,0.25)}	+z+3/4,−y+1/2,+x+1/4
{3^−_xxx|(0.5,0.5,0.0)}	+y+1/2,+z+1/2,+x
{4^−_0y0|(0.0,0.25,0.25)}	−z,+y+1/4,+x+1/4
{4^+_0y0|(0.25,0.25,0.0)}	+z+1/4,+y+1/4,−x
{3^−_−x−xx|(0.0,0.25,0.25)}	+y,−z+1/4,−x+1/4

{2_-x0x|(0.5,0.5,0.0)}	−z+1/2,−y+1/2,−x
{3^-_x-x-x|(0.75,0.5,0.25)}	−y+3/4,+z+1/2,−x+1/4
{3^-_-xx-x|(0.25,0.25,0.0)}	−y+1/4,−z+1/4,+x
{-1|(0.5,0.5,0.0)}	−x+1/2,−y+1/2,−z
{-4^+_00z|(0.5,0.75,0.25)}	+y+1/2,−x+3/4,−z+1/4
{m_0yz|(0.5,0.75,0.25)}	−x+1/2,+y+3/4,+z+1/4
{-3^+_xxx|(0.5,0.5,0.0)}	−z+1/2,−x+1/2,−y
{m_xy0|(0.25,0.75,0.5)}	+x+1/4,+y+3/4,−z+1/2
{m_x-xz|(0.25,0.75,0.5)}	−y+1/4,−x+3/4,+z+1/2
{m_xy-y|(0.5,0.75,0.25)}	+x+1/2,−z+3/4,−y+1/4
{-4^-_00z|(0.25,0.5,0.75)}	−y+1/4,+x+1/2,−z+3/4
{m_x0z|(0.25,0.5,0.75)}	+x+1/4,−y+1/2,+z+3/4
{-3^+_x-x-x|(0.25,0.75,0.5)}	+z+1/4,+x+3/4,−y+1/2
{m_xxz|(0.5,0.5,0.0)}	+y+1/2,+x+1/2,+z
{-4^+_x00|(0.25,0.5,0.75)}	−x+1/4,+z+1/2,−y+3/4
{-3^+_-xx-x|(0.5,0.75,0.25)}	−z+1/2,+x+3/4,+y+1/4
{m_xyy|(0.5,0.5,0.0)}	+x+1/2,+z+1/2,+y
{-3^+_-x-xx|(0.25,0.5,0.75)}	+z+1/4,−x+1/2,+y+3/4
{-4^-_x00|(0.25,0.75,0.5)}	−x+1/4,−z+3/4,+y+1/2
{m_-xyz|(0.75,0.5,0.25)}	−z+3/4,+y+1/2,−x+1/4
{-3^-_xxx|(0.5,0.5,0.0)}	−y+1/2,−z+1/2,−x
{-4^-_0y0|(0.0,0.25,0.25)}	+z,−y+1/4,−x+1/4
{-4^+_0y0|(0.25,0.25,0.0)}	−z+1/4,−y+1/4,+x
{-3^-_-x-xx|(0.0,0.25,0.25)}	−y,+z+1/4,+x+1/4
{m_xyx|(0.5,0.5,0.0)}	+z+1/2,+y+1/2,+x
{-3^-_x-x-x|(0.75,0.5,0.25)}	+y+3/4,−z+1/2,+x+1/4
{-3^-_-xx-x|(0.25,0.25,0.0)}	+y+1/4,+z+1/4,−x

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space group: 228:1 {'Hall': ' F 4d 2 3 −1cd', 'HM': 'F d −3 c:1'}
Crystal system: Cubic
Setting: 1
+x,+y,+z
−y+1/4,+x+1/4,+z+1/4
+x,−y,−z
+z,+x,+y
−x+1/4,−y+1/4,−z+3/4

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Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.25,0.25,0.25)}	−y+1/4,+x+1/4,+z+1/4
{2_x00|(0.0,0.0,0.0)}	+x,−y,−z
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{-1|(0.25,0.25,0.75)}	−x+1/4,−y+1/4,−z+3/4
{2_00z|(0.0,0.5,0.5)}	−x,−y+1/2,+z+1/2
{2_xx0|(0.25,0.25,0.25)}	+y+1/4,+x+1/4,−z+1/4
{2_0yy|(0.25,0.25,0.25)}	−x+1/4,+z+1/4,+y+1/4
{-4^+_00z|(0.0,0.5,0.0)}	+y,−x+1/2,−z
{4^-_00z|(0.75,0.25,0.75)}	+y+3/4,−x+1/4,+z+3/4
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2

{3^+_x-x-x	(0.0,0.5,0.5)}	−z,−x+1/2,+y+1/2
{m_xy0	(0.75,0.25,0.25)}	+x+3/4,+y+1/4,−z+1/4
{2_x-x0	(0.75,0.25,0.75)}	−y+3/4,−x+1/4,−z+3/4
{4^+_x00	(0.75,0.25,0.75)}	+x+3/4,−z+1/4,+y+3/4
{−4^−_00z	(0.0,0.0,0.5)}	−y,+x,−z+1/2
{3^+_-xx-x	(0.0,0.0,0.0)}	+z,−x,−y
{m_0yz	(0.25,0.75,0.25)}	−x+1/4,+y+3/4,+z+1/4
{2_0y-y	(0.25,0.75,0.75)}	−x+1/4,−z+3/4,−y+3/4
{m_xxz	(0.0,0.5,0.0)}	+y,+x+1/2,+z
{3^+_-x-xx	(0.0,0.5,0.5)}	−z,+x+1/2,−y+1/2
{m_x0z	(0.75,0.75,0.25)}	+x+3/4,−y+3/4,+z+1/4
{4^−_x00	(0.75,0.75,0.25)}	+x+3/4,+z+3/4,−y+1/4
{m_x-xz	(0.0,0.0,0.5)}	−y,−x,+z+1/2
{1	(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{4^+_00z	(0.25,0.75,0.75)}	−y+1/4,+x+3/4,+z+3/4
{2_x00	(0.0,0.5,0.5)}	+x,−y+1/2,−z+1/2
{3^+_xxx	(0.0,0.5,0.5)}	+z,+x+1/2,+y+1/2
{−1	(0.25,0.75,0.25)}	−x+1/4,−y+3/4,−z+1/4
{2_00z	(0.0,0.0,0.0)}	−x,−y,+z
{2_xx0	(0.25,0.75,0.75)}	+y+1/4,+x+3/4,−z+3/4
{2_0yy	(0.25,0.75,0.75)}	−x+1/4,+z+3/4,+y+3/4
{−4^+_00z	(0.0,0.0,0.5)}	+y,−x,−z+1/2
{4^−_00z	(0.75,0.75,0.25)}	+y+3/4,−x+3/4,+z+1/4
{2_0y0	(0.0,0.0,0.0)}	−x,+y,−z
{3^+_x-x-x	(0.0,0.0,0.0)}	−z,−x,+y
{m_xy0	(0.75,0.75,0.75)}	+x+3/4,+y+3/4,−z+3/4
{2_x-x0	(0.75,0.75,0.25)}	−y+3/4,−x+3/4,−z+1/4
{4^+_x00	(0.75,0.75,0.25)}	+x+3/4,−z+3/4,+y+1/4
{−4^−_00z	(0.0,0.5,0.0)}	−y,+x+1/2,−z
{3^+_-xx-x	(0.0,0.5,0.5)}	+z,−x+1/2,−y+1/2
{m_0yz	(0.25,0.25,0.75)}	−x+1/4,+y+1/4,+z+3/4
{2_0y-y	(0.25,0.25,0.25)}	−x+1/4,−z+1/4,−y+1/4
{m_xxz	(0.0,0.0,0.5)}	+y,+x,+z+1/2
{3^+_-x-xx	(0.0,0.0,0.0)}	−z,+x,−y
{m_x0z	(0.75,0.25,0.25)}	+x+3/4,−y+1/4,+z+1/4
{4^−_x00	(0.75,0.25,0.75)}	+x+3/4,+z+1/4,−y+3/4
{m_x-xz	(0.0,0.5,0.0)}	−y,−x+1/2,+z
{1	(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{4^+_00z	(0.75,0.25,0.75)}	−y+3/4,+x+1/4,+z+3/4
{2_x00	(0.5,0.0,0.5)}	+x+1/2,−y,−z+1/2
{3^+_xxx	(0.5,0.0,0.5)}	+z+1/2,+x,+y+1/2
{−1	(0.75,0.25,0.25)}	−x+3/4,−y+1/4,−z+1/4
{2_00z	(0.5,0.5,0.0)}	−x+1/2,−y+1/2,+z
{2_xx0	(0.75,0.25,0.75)}	+y+3/4,+x+1/4,−z+3/4
{2_0yy	(0.75,0.25,0.75)}	−x+3/4,+z+1/4,+y+3/4
{−4^+_00z	(0.5,0.5,0.5)}	+y+1/2,−x+1/2,−z+1/2
{4^−_00z	(0.25,0.25,0.25)}	+y+1/4,−x+1/4,+z+1/4
{2_0y0	(0.5,0.5,0.0)}	−x+1/2,+y+1/2,−z
{3^+_x-x-x	(0.5,0.5,0.0)}	−z+1/2,−x+1/2,+y
{m_xy0	(0.25,0.25,0.75)}	+x+1/4,+y+1/4,−z+3/4
{2_x-x0	(0.25,0.25,0.25)}	−y+1/4,−x+1/4,−z+1/4
{4^+_x00	(0.25,0.25,0.25)}	+x+1/4,−z+1/4,+y+1/4
{−4^−_00z	(0.5,0.0,0.0)}	−y+1/2,+x,−z
{3^+_-xx-x	(0.5,0.0,0.5)}	+z+1/2,−x,−y+1/2

{m_0yz|(0.75,0.75,0.75)}	−x+3/4,+y+3/4,+z+3/4
{2_0y−y|(0.75,0.75,0.25)}	−x+3/4,−z+3/4,−y+1/4
{m_xxz|(0.5,0.5,0.5)}	+y+1/2,+x+1/2,+z+1/2
{3^+_−x−xx|(0.5,0.5,0.0)}	−z+1/2,+x+1/2,−y
{m_x0z|(0.25,0.75,0.25)}	+x+1/4,−y+3/4,+z+1/4
{4^−_x00|(0.25,0.75,0.75)}	+x+1/4,+z+3/4,−y+3/4
{m_x−xz|(0.5,0.0,0.0)}	−y+1/2,−x,+z
{1|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z
{4^+_00z|(0.75,0.75,0.25)}	−y+3/4,+x+3/4,+z+1/4
{2_x00|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{3^+_xxx|(0.5,0.5,0.0)}	+z+1/2,+x+1/2,+y
{−1|(0.75,0.75,0.75)}	−x+3/4,−y+3/4,−z+3/4
{2_00z|(0.5,0.0,0.5)}	−x+1/2,−y,+z+1/2
{2_xx0|(0.75,0.75,0.25)}	+y+3/4,+x+3/4,−z+1/4
{2_0yy|(0.75,0.75,0.25)}	−x+3/4,+z+3/4,+y+1/4
{−4^+_00z|(0.5,0.0,0.0)}	+y+1/2,−x,−z
{4^−_00z|(0.25,0.75,0.75)}	+y+1/4,−x+3/4,+z+3/4
{2_0y0|(0.5,0.0,0.5)}	−x+1/2,+y,−z+1/2
{3^+_x−x−x|(0.5,0.0,0.5)}	−z+1/2,−x,+y+1/2
{m_xy0|(0.25,0.75,0.25)}	+x+1/4,+y+3/4,−z+1/4
{2_x−x0|(0.25,0.75,0.75)}	−y+1/4,−x+3/4,−z+3/4
{4^+_x00|(0.25,0.75,0.75)}	+x+1/4,−z+3/4,+y+3/4
{−4^−_00z|(0.5,0.5,0.5)}	−y+1/2,+x+1/2,−z+1/2
{3^+_−xx−x|(0.5,0.5,0.0)}	+z+1/2,−x+1/2,−y
{m_0yz|(0.75,0.25,0.25)}	−x+3/4,+y+1/4,+z+1/4
{2_0y−y|(0.75,0.25,0.75)}	−x+3/4,−z+1/4,−y+3/4
{m_xxz|(0.5,0.0,0.0)}	+y+1/2,+x,+z
{3^+_−x−xx|(0.5,0.0,0.5)}	−z+1/2,+x,−y+1/2
{m_x0z|(0.25,0.25,0.25)}	+x+1/4,−y+1/4,+z+1/4
{4^−_x00|(0.25,0.25,0.25)}	+x+1/4,+z+1/4,−y+1/4
{m_x−xz|(0.5,0.5,0.5)}	−y+1/2,−x+1/2,+z+1/2
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space group: 228:2 {'Hall': '−F 4cvw 2vw 3', 'HM': 'F d −3 c:2'}
Crystal system: Cubic
Setting: 2
+x,+y,+z
−y,+x+1/4,+z+3/4
+x,−y+1/4,−z+1/4
+z,+x,+y

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Seitz	Jones
{1|(0.0,0.0,0.0)}	+x,+y,+z
{4^+_00z|(0.0,0.25,0.75)}	−y,+x+1/4,+z+3/4
{2_x00|(0.0,0.25,0.25)}	+x,−y+1/4,−z+1/4
{3^+_xxx|(0.0,0.0,0.0)}	+z,+x,+y
{2_00z|(0.75,0.25,0.5)}	−x+3/4,−y+1/4,+z+1/2
{2_xx0|(0.75,0.25,0.0)}	+y+3/4,+x+1/4,−z
{2_0yy|(0.0,0.25,0.75)}	−x,+z+1/4,+y+3/4
{4^−_00z|(0.75,0.0,0.25)}	+y+3/4,−x,+z+1/4

{2_0y0|(0.75,0.0,0.75)}	−x+3/4,+y,−z+3/4
{3^+_x−x−x|(0.75,0.25,0.5)}	−z+3/4,−x+1/4,+y+1/2
{2_x−x0|(0.0,0.0,0.5)}	−y,−x,−z+1/2
{4^+_x00|(0.75,0.0,0.25)}	+x+3/4,−z,+y+1/4
{3^+_−xx−x|(0.0,0.25,0.25)}	+z,−x+1/4,−y+1/4
{2_0y−y|(0.0,0.0,0.5)}	−x,−z,−y+1/2
{3^+_−x−xx|(0.75,0.0,0.25)}	−z+3/4,+x,−y+1/4
{4^−_x00|(0.75,0.25,0.0)}	+x+3/4,+z+1/4,−y
{2_x0x|(0.75,0.0,0.25)}	+z+3/4,−y,+x+1/4
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{4^−_0y0|(0.0,0.75,0.25)}	−z,+y+3/4,+x+1/4
{4^+_0y0|(0.25,0.75,0.0)}	+z+1/4,+y+3/4,−x
{3^−_−x−xx|(0.5,0.75,0.25)}	+y+1/2,−z+3/4,−x+1/4
{2_−x0x|(0.5,0.0,0.0)}	−z+1/2,−y,−x
{3^−_x−x−x|(0.25,0.0,0.25)}	−y+1/4,+z,−x+1/4
{3^−_−xx−x|(0.25,0.75,0.0)}	−y+1/4,−z+3/4,+x
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{−4^+_00z|(0.0,0.25,0.75)}	+y,−x+1/4,−z+3/4
{m_0yz|(0.0,0.25,0.25)}	−x,+y+1/4,+z+1/4
{−3^+_xxx|(0.0,0.0,0.0)}	−z,−x,−y
{m_xy0|(0.75,0.25,0.5)}	+x+3/4,+y+1/4,−z+1/2
{m_x−xz|(0.75,0.25,0.0)}	−y+3/4,−x+1/4,+z
{m_xy−y|(0.0,0.25,0.75)}	+x,−z+1/4,−y+3/4
{−4^−_00z|(0.75,0.0,0.25)}	−y+3/4,+x,−z+1/4
{m_x0z|(0.75,0.0,0.75)}	+x+3/4,−y,+z+3/4
{−3^+_x−x−x|(0.75,0.25,0.5)}	+z+3/4,+x+1/4,−y+1/2
{m_xxz|(0.0,0.0,0.5)}	+y,+x,+z+1/2
{−4^+_x00|(0.75,0.0,0.25)}	−x+3/4,+z,−y+1/4
{−3^+_−xx−x|(0.0,0.25,0.25)}	−z,+x+1/4,+y+1/4
{m_xyy|(0.0,0.0,0.5)}	+x,+z,+y+1/2
{−3^+_−x−xx|(0.75,0.0,0.25)}	+z+3/4,−x,+y+1/4
{−4^−_x00|(0.75,0.25,0.0)}	−x+3/4,−z+1/4,+y
{m_−xyz|(0.75,0.0,0.25)}	−z+3/4,+y,−x+1/4
{−3^−_xxx|(0.0,0.0,0.0)}	−y,−z,−x
{−4^−_0y0|(0.0,0.75,0.25)}	+z,−y+3/4,−x+1/4
{−4^+_0y0|(0.25,0.75,0.0)}	−z+1/4,−y+3/4,+x
{−3^−_−x−xx|(0.5,0.75,0.25)}	−y+1/2,+z+3/4,+x+1/4
{m_xyx|(0.5,0.0,0.0)}	+z+1/2,+y,+x
{−3^−_x−x−x|(0.25,0.0,0.25)}	+y+1/4,−z,+x+1/4
{−3^−_−xx−x|(0.25,0.75,0.0)}	+y+1/4,+z+3/4,−x
{1|(0.0,0.5,0.5)}	+x,+y+1/2,+z+1/2
{4^+_00z|(0.0,0.75,0.25)}	−y,+x+3/4,+z+1/4
{2_x00|(0.0,0.75,0.75)}	+x,−y+3/4,−z+3/4
{3^+_xxx|(0.0,0.5,0.5)}	+z,+x+1/2,+y+1/2
{2_00z|(0.75,0.75,0.0)}	−x+3/4,−y+3/4,+z
{2_xx0|(0.75,0.75,0.5)}	+y+3/4,+x+3/4,−z+1/2
{2_0yy|(0.0,0.75,0.25)}	−x,+z+3/4,+y+1/4
{4^−_00z|(0.75,0.5,0.75)}	+y+3/4,−x+1/2,+z+3/4
{2_0y0|(0.75,0.5,0.25)}	−x+3/4,+y+1/2,−z+1/4
{3^+_x−x−x|(0.75,0.75,0.0)}	−z+3/4,−x+3/4,+y
{2_x−x0|(0.0,0.5,0.0)}	−y,−x+1/2,−z
{4^+_x00|(0.75,0.5,0.75)}	+x+3/4,−z+1/2,+y+3/4
{3^+_−xx−x|(0.0,0.75,0.75)}	+z,−x+3/4,−y+3/4
{2_0y−y|(0.0,0.5,0.0)}	−x,−z+1/2,−y

{3^+__-x-xx	(0.75,0.5,0.25)}	−z+3/4,+x+1/2,−y+1/4
{4^-__x00	(0.75,0.75,0.5)}	+x+3/4,+z+3/4,−y+1/2
{2_x0x	(0.75,0.5,0.75)}	+z+3/4,−y+1/2,+x+3/4
{3^-__xxx	(0.0,0.5,0.5)}	+y,+z+1/2,+x+1/2
{4^-__0y0	(0.0,0.25,0.75)}	−z,+y+1/4,+x+3/4
{4^+__0y0	(0.25,0.25,0.5)}	+z+1/4,+y+1/4,−x+1/2
{3^-__-x-xx	(0.5,0.25,0.75)}	+y+1/2,−z+1/4,−x+3/4
{2_-x0x	(0.5,0.5,0.5)}	−z+1/2,−y+1/2,−x+1/2
{3^-__x-x-x	(0.25,0.5,0.75)}	−y+1/4,+z+1/2,−x+3/4
{3^-__-xx-x	(0.25,0.25,0.5)}	−y+1/4,−z+1/4,+x+1/2
{−1	(0.0,0.5,0.5)}	−x,−y+1/2,−z+1/2
{−4^+__00z	(0.0,0.75,0.25)}	+y,−x+3/4,−z+1/4
{m_0yz	(0.0,0.75,0.75)}	−x,+y+3/4,+z+3/4
{−3^+__xxx	(0.0,0.5,0.5)}	−z,−x+1/2,−y+1/2
{m_xy0	(0.75,0.75,0.0)}	+x+3/4,+y+3/4,−z
{m_x-xz	(0.75,0.75,0.5)}	−y+3/4,−x+3/4,+z+1/2
{m_xy-y	(0.0,0.75,0.25)}	+x,−z+3/4,−y+1/4
{−4^-__00z	(0.75,0.5,0.75)}	−y+3/4,+x+1/2,−z+3/4
{m_x0z	(0.75,0.5,0.25)}	+x+3/4,−y+1/2,+z+1/4
{−3^+__x-x-x	(0.75,0.75,0.0)}	+z+3/4,+x+3/4,−y
{m_xxz	(0.0,0.5,0.0)}	+y,+x+1/2,+z
{−4^+__x00	(0.75,0.5,0.75)}	−x+3/4,+z+1/2,−y+3/4
{−3^+__-xx-x	(0.0,0.75,0.75)}	−z,+x+3/4,+y+3/4
{m_xyy	(0.0,0.5,0.0)}	+x,+z+1/2,+y
{−3^+__-x-xx	(0.75,0.5,0.25)}	+z+3/4,−x+1/2,+y+1/4
{−4^-__x00	(0.75,0.75,0.5)}	−x+3/4,−z+3/4,+y+1/2
{m_-xyz	(0.75,0.5,0.75)}	−z+3/4,+y+1/2,−x+3/4
{−3^-__xxx	(0.0,0.5,0.5)}	−y,−z+1/2,−x+1/2
{−4^-__0y0	(0.0,0.25,0.75)}	+z,−y+1/4,−x+3/4
{−4^+__0y0	(0.25,0.25,0.5)}	−z+1/4,−y+1/4,+x+1/2
{−3^-__-x-xx	(0.5,0.25,0.75)}	−y+1/2,+z+1/4,+x+3/4
{m_xyx	(0.5,0.5,0.5)}	+z+1/2,+y+1/2,+x+1/2
{−3^-__x-x-x	(0.25,0.5,0.75)}	+y+1/4,−z+1/2,+x+3/4
{−3^-__-xx-x	(0.25,0.25,0.5)}	+y+1/4,+z+1/4,−x+1/2
{1	(0.5,0.0,0.5)}	+x+1/2,+y,+z+1/2
{4^+__00z	(0.5,0.25,0.25)}	−y+1/2,+x+1/4,+z+1/4
{2_x00	(0.5,0.25,0.75)}	+x+1/2,−y+1/4,−z+3/4
{3^+__xxx	(0.5,0.0,0.5)}	+z+1/2,+x,+y+1/2
{2_00z	(0.25,0.25,0.0)}	−x+1/4,−y+1/4,+z
{2_xx0	(0.25,0.25,0.5)}	+y+1/4,+x+1/4,−z+1/2
{2_0yy	(0.5,0.25,0.25)}	−x+1/2,+z+1/4,+y+1/4
{4^-__00z	(0.25,0.0,0.75)}	+y+1/4,−x,+z+3/4
{2_0y0	(0.25,0.0,0.25)}	−x+1/4,+y,−z+1/4
{3^+__x-x-x	(0.25,0.25,0.0)}	−z+1/4,−x+1/4,+y
{2_x-x0	(0.5,0.0,0.0)}	−y+1/2,−x,−z
{4^+__x00	(0.25,0.0,0.75)}	+x+1/4,−z,+y+3/4
{3^+__-xx-x	(0.5,0.25,0.75)}	+z+1/2,−x+1/4,−y+3/4
{2_0y-y	(0.5,0.0,0.0)}	−x+1/2,−z,−y
{3^+__-x-xx	(0.25,0.0,0.25)}	−z+1/4,+x,−y+1/4
{4^-__x00	(0.25,0.25,0.5)}	+x+1/4,+z+1/4,−y+1/2
{2_x0x	(0.25,0.0,0.75)}	+z+1/4,−y,+x+3/4
{3^-__xxx	(0.5,0.0,0.5)}	+y+1/2,+z,+x+1/2
{4^-__0y0	(0.5,0.75,0.75)}	−z+1/2,+y+3/4,+x+3/4
{4^+__0y0	(0.75,0.75,0.5)}	+z+3/4,+y+3/4,−x+1/2

{3^-_-x-xx|(0.0,0.75,0.75)}	+y,-z+3/4,-x+3/4
{2_-x0x|(0.0,0.0,0.5)}	-z,-y,-x+1/2
{3^-_x-x-x|(0.75,0.0,0.75)}	-y+3/4,+z,-x+3/4
{3^-_-xx-x|(0.25,0.75,0.5)}	-y+1/4,-z+3/4,+x+1/2
{-1|(0.5,0.0,0.5)}	-x+1/2,-y,-z+1/2
{-4^+_00z|(0.5,0.25,0.25)}	+y+1/2,-x+1/4,-z+1/4
{m_0yz|(0.5,0.25,0.75)}	-x+1/2,+y+1/4,+z+3/4
{-3^+_xxx|(0.5,0.0,0.5)}	-z+1/2,-x,-y+1/2
{m_xy0|(0.25,0.25,0.0)}	+x+1/4,+y+1/4,-z
{m_x-xz|(0.25,0.25,0.5)}	-y+1/4,-x+1/4,+z+1/2
{m_xy-y|(0.5,0.25,0.25)}	+x+1/2,-z+1/4,-y+1/4
{-4^-_00z|(0.25,0.0,0.75)}	-y+1/4,+x,-z+3/4
{m_x0z|(0.25,0.0,0.25)}	+x+1/4,-y,+z+1/4
{-3^+_x-x-x|(0.25,0.25,0.0)}	+z+1/4,+x+1/4,-y
{m_xxz|(0.5,0.0,0.0)}	+y+1/2,+x,+z
{-4^+_x00|(0.25,0.0,0.75)}	-x+1/4,+z,-y+3/4
{-3^+_-xx-x|(0.5,0.25,0.75)}	-z+1/2,+x+1/4,+y+3/4
{m_xyy|(0.5,0.0,0.0)}	+x+1/2,+z,+y
{-3^+_-x-xx|(0.25,0.0,0.25)}	+z+1/4,-x,+y+1/4
{-4^-_x00|(0.25,0.25,0.5)}	-x+1/4,-z+1/4,+y+1/2
{m_-xyz|(0.25,0.0,0.75)}	-z+1/4,+y,-x+3/4
{-3^-_xxx|(0.5,0.0,0.5)}	-y+1/2,-z,-x+1/2
{-4^-_0y0|(0.5,0.75,0.75)}	+z+1/2,-y+3/4,-x+3/4
{-4^+_0y0|(0.75,0.75,0.5)}	-z+3/4,-y+3/4,+x+1/2
{-3^-_-x-xx|(0.0,0.75,0.75)}	-y,+z+3/4,+x+3/4
{m_xyx|(0.0,0.0,0.5)}	+z,+y,+x+1/2
{-3^-_x-x-x|(0.75,0.0,0.75)}	+y+3/4,-z,+x+3/4
{-3^-_-xx-x|(0.25,0.75,0.5)}	+y+1/4,+z+3/4,-x+1/2
{1|(0.5,0.5,0.0)}	+x+1/2,+y+1/2,+z
{4^+_00z|(0.5,0.75,0.75)}	-y+1/2,+x+3/4,+z+3/4
{2_x00|(0.5,0.75,0.25)}	+x+1/2,-y+3/4,-z+1/4
{3^+_xxx|(0.5,0.5,0.0)}	+z+1/2,+x+1/2,+y
{2_00z|(0.25,0.75,0.5)}	-x+1/4,-y+3/4,+z+1/2
{2_xx0|(0.25,0.75,0.0)}	+y+1/4,+x+3/4,-z
{2_0yy|(0.5,0.75,0.75)}	-x+1/2,+z+3/4,+y+3/4
{4^-_00z|(0.25,0.5,0.25)}	+y+1/4,-x+1/2,+z+1/4
{2_0y0|(0.25,0.5,0.75)}	-x+1/4,+y+1/2,-z+3/4
{3^+_x-x-x|(0.25,0.75,0.5)}	-z+1/4,-x+3/4,+y+1/2
{2_x-x0|(0.5,0.5,0.5)}	-y+1/2,-x+1/2,-z+1/2
{4^+_x00|(0.25,0.5,0.25)}	+x+1/4,-z+1/2,+y+1/4
{3^+_-xx-x|(0.5,0.75,0.25)}	+z+1/2,-x+3/4,-y+1/4
{2_0y-y|(0.5,0.5,0.5)}	-x+1/2,-z+1/2,-y+1/2
{3^+_-x-xx|(0.25,0.5,0.25)}	-z+1/4,+x+1/2,-y+1/4
{4^-_x00|(0.25,0.75,0.0)}	+x+1/4,+z+3/4,-y
{2_x0x|(0.25,0.5,0.25)}	+z+1/4,-y+1/2,+x+1/4
{3^-_xxx|(0.5,0.5,0.0)}	+y+1/2,+z+1/2,+x
{4^-_0y0|(0.5,0.25,0.25)}	-z+1/2,+y+1/4,+x+1/4
{4^+_0y0|(0.75,0.25,0.0)}	+z+3/4,+y+1/4,-x
{3^-_-x-xx|(0.0,0.25,0.25)}	+y,-z+1/4,-x+1/4
{2_-x0x|(0.0,0.5,0.0)}	-z,-y+1/2,-x
{3^-_x-x-x|(0.75,0.5,0.25)}	-y+3/4,+z+1/2,-x+1/4
{3^-_-xx-x|(0.25,0.25,0.0)}	-y+1/4,-z+1/4,+x
{-1|(0.5,0.5,0.0)}	-x+1/2,-y+1/2,-z
{-4^+_00z|(0.5,0.75,0.75)}	+y+1/2,-x+3/4,-z+3/4

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|    {m_0yz|(0.5,0.75,0.25)}    |   −x+1/2,+y+3/4,+z+1/4  |
|    {−3^+_xxx|(0.5,0.5,0.0)}   |    −z+1/2,−x+1/2,−y      |
|    {m_xy0|(0.25,0.75,0.5)}    |   +x+1/4,+y+3/4,−z+1/2   |
|    {m_x−xz|(0.25,0.75,0.0)}   |    −y+1/4,−x+3/4,+z      |
|    {m_xy−y|(0.5,0.75,0.75)}   |   +x+1/2,−z+3/4,−y+3/4   |
|   {−4^−_00z|(0.25,0.5,0.25)}  |   −y+1/4,+x+1/2,−z+1/4   |
|    {m_x0z|(0.25,0.5,0.75)}    |   +x+1/4,−y+1/2,+z+3/4   |
|  {−3^+_x−x−x|(0.25,0.75,0.5)} |   +z+1/4,+x+3/4,−y+1/2   |
|    {m_xxz|(0.5,0.5,0.5)}      |   +y+1/2,+x+1/2,+z+1/2   |
|   {−4^+_x00|(0.25,0.5,0.25)}  |   −x+1/4,+z+1/2,−y+1/4   |
|  {−3^+_−xx−x|(0.5,0.75,0.25)} |   −z+1/2,+x+3/4,+y+1/4   |
|    {m_xyy|(0.5,0.5,0.5)}      |   +x+1/2,+z+1/2,+y+1/2   |
|  {−3^+_−x−xx|(0.25,0.5,0.25)} |   +z+1/4,−x+1/2,+y+1/4   |
|   {−4^−_x00|(0.25,0.75,0.0)}  |    −x+1/4,−z+3/4,+y      |
|    {m_−xyz|(0.25,0.5,0.25)}   |   −z+1/4,+y+1/2,−x+1/4   |
|    {−3^−_xxx|(0.5,0.5,0.0)}   |    −y+1/2,−z+1/2,−x      |
|   {−4^−_0y0|(0.5,0.25,0.25)}  |   +z+1/2,−y+1/4,−x+1/4   |
|   {−4^+_0y0|(0.75,0.25,0.0)}  |    −z+3/4,−y+1/4,+x      |
|  {−3^−_−x−xx|(0.0,0.25,0.25)} |    −y,+z+1/4,+x+1/4      |
|    {m_xyx|(0.0,0.5,0.0)}      |     +z,+y+1/2,+x         |
|  {−3^−_x−x−x|(0.75,0.5,0.25)} |   +y+3/4,−z+1/2,+x+1/4   |
|  {−3^−_−xx−x|(0.25,0.25,0.0)} |     +y+1/4,+z+1/4,−x     |
+─────────────────────────+────────────────────+
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space group: 229 {'Hall': '−I 4 2 3', 'HM': 'I m −3 m'}
Crystal system: Cubic
+x,+y,+z
−y,+x,+z
+x,−y,−z
+z,+x,+y
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+─────────────────────────+────────────────────+
|          Seitz          |        Jones       |
+─────────────────────────+────────────────────+
|       {1|(0.0,0.0,0.0)}        |       +x,+y,+z      |
|    {4^+_00z|(0.0,0.0,0.0)}     |      −y,+x,+z       |
|    {2_x00|(0.0,0.0,0.0)}       |      +x,−y,−z       |
|    {3^+_xxx|(0.0,0.0,0.0)}     |      +z,+x,+y       |
|    {2_00z|(0.0,0.0,0.0)}       |      −x,−y,+z       |
|    {2_xx0|(0.0,0.0,0.0)}       |      +y,+x,−z       |
|    {2_0yy|(0.0,0.0,0.0)}       |      −x,+z,+y       |
|    {4^−_00z|(0.0,0.0,0.0)}     |      +y,−x,+z       |
|    {2_0y0|(0.0,0.0,0.0)}       |      −x,+y,−z       |
|   {3^+_x−x−x|(0.0,0.0,0.0)}    |      −z,−x,+y       |
|    {2_x−x0|(0.0,0.0,0.0)}      |      −y,−x,−z       |
|    {4^+_x00|(0.0,0.0,0.0)}     |      +x,−z,+y       |
|   {3^+_−xx−x|(0.0,0.0,0.0)}    |      +z,−x,−y       |
|    {2_0y−y|(0.0,0.0,0.0)}      |      −x,−z,−y       |
|   {3^+_−x−xx|(0.0,0.0,0.0)}    |      −z,+x,−y       |
|    {4^−_x00|(0.0,0.0,0.0)}     |      +x,+z,−y       |
|    {2_x0x|(0.0,0.0,0.0)}       |      +z,−y,+x       |
|    {3^−_xxx|(0.0,0.0,0.0)}     |      +y,+z,+x       |
```

{4^-_0y0|(0.0,0.0,0.0)}	−z,+y,+x	
{4^+_0y0|(0.0,0.0,0.0)}	+z,+y,−x	
{3^-_-x-xx|(0.0,0.0,0.0)}	+y,−z,−x	
{2_-x0x|(0.0,0.0,0.0)}	−z,−y,−x	
{3^-_x-x-x|(0.0,0.0,0.0)}	−y,+z,−x	
{3^-_-xx-x|(0.0,0.0,0.0)}	−y,−z,+x	
{-1|(0.0,0.0,0.0)}	−x,−y,−z	
{-4^+_00z|(0.0,0.0,0.0)}	+y,−x,−z	
{m_0yz|(0.0,0.0,0.0)}	−x,+y,+z	
{-3^+_xxx|(0.0,0.0,0.0)}	−z,−x,−y	
{m_xy0|(0.0,0.0,0.0)}	+x,+y,−z	
{m_x-xz|(0.0,0.0,0.0)}	−y,−x,+z	
{m_xy-y|(0.0,0.0,0.0)}	+x,−z,−y	
{-4^-_00z|(0.0,0.0,0.0)}	−y,+x,−z	
{m_x0z|(0.0,0.0,0.0)}	+x,−y,+z	
{-3^+_x-x-x|(0.0,0.0,0.0)}	+z,+x,−y	
{m_xxz|(0.0,0.0,0.0)}	+y,+x,+z	
{-4^+_x00|(0.0,0.0,0.0)}	−x,+z,−y	
{-3^+_-xx-x|(0.0,0.0,0.0)}	−z,+x,+y	
{m_xyy|(0.0,0.0,0.0)}	+x,+z,+y	
{-3^+_-x-xx|(0.0,0.0,0.0)}	+z,−x,+y	
{-4^-_x00|(0.0,0.0,0.0)}	−x,−z,+y	
{m_-xyz|(0.0,0.0,0.0)}	−z,+y,−x	
{-3^-_xxx|(0.0,0.0,0.0)}	−y,−z,−x	
{-4^-_0y0|(0.0,0.0,0.0)}	+z,−y,−x	
{-4^+_0y0|(0.0,0.0,0.0)}	−z,−y,+x	
{-3^-_-x-xx|(0.0,0.0,0.0)}	−y,+z,+x	
{m_xyx|(0.0,0.0,0.0)}	+z,+y,+x	
{-3^-_x-x-x|(0.0,0.0,0.0)}	+y,−z,+x	
{-3^-_-xx-x|(0.0,0.0,0.0)}	+y,+z,−x	
{1|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2	
{4^+_00z|(0.5,0.5,0.5)}	−y+1/2,+x+1/2,+z+1/2	
{2_x00|(0.5,0.5,0.5)}	+x+1/2,−y+1/2,−z+1/2	
{3^+_xxx|(0.5,0.5,0.5)}	+z+1/2,+x+1/2,+y+1/2	
{2_00z|(0.5,0.5,0.5)}	−x+1/2,−y+1/2,+z+1/2	
{2_xx0|(0.5,0.5,0.5)}	+y+1/2,+x+1/2,−z+1/2	
{2_0yy|(0.5,0.5,0.5)}	−x+1/2,+z+1/2,+y+1/2	
{4^-_00z|(0.5,0.5,0.5)}	+y+1/2,−x+1/2,+z+1/2	
{2_0y0|(0.5,0.5,0.5)}	−x+1/2,+y+1/2,−z+1/2	
{3^+_x-x-x|(0.5,0.5,0.5)}	−z+1/2,−x+1/2,+y+1/2	
{2_x-x0|(0.5,0.5,0.5)}	−y+1/2,−x+1/2,−z+1/2	
{4^+_x00|(0.5,0.5,0.5)}	+x+1/2,−z+1/2,+y+1/2	
{3^+_-xx-x|(0.5,0.5,0.5)}	+z+1/2,−x+1/2,−y+1/2	
{2_0y-y|(0.5,0.5,0.5)}	−x+1/2,−z+1/2,−y+1/2	
{3^+_-x-xx|(0.5,0.5,0.5)}	−z+1/2,+x+1/2,−y+1/2	
{4^-_x00|(0.5,0.5,0.5)}	+x+1/2,+z+1/2,−y+1/2	
{2_x0x|(0.5,0.5,0.5)}	+z+1/2,−y+1/2,+x+1/2	
{3^-_xxx|(0.5,0.5,0.5)}	+y+1/2,+z+1/2,+x+1/2	
{4^-_0y0|(0.5,0.5,0.5)}	−z+1/2,+y+1/2,+x+1/2	
{4^+_0y0|(0.5,0.5,0.5)}	+z+1/2,+y+1/2,−x+1/2	
{3^-_-x-xx|(0.5,0.5,0.5)}	+y+1/2,−z+1/2,−x+1/2	
{2_-x0x|(0.5,0.5,0.5)}	−z+1/2,−y+1/2,−x+1/2	
{3^-_x-x-x|(0.5,0.5,0.5)}	−y+1/2,+z+1/2,−x+1/2	
{3^-_-xx-x|(0.5,0.5,0.5)}	−y+1/2,−z+1/2,+x+1/2	

```
|        {−1|(0.5,0.5,0.5)}       | −x+1/2,−y+1/2,−z+1/2 |
|    {−4^+_00z|(0.5,0.5,0.5)}     | +y+1/2,−x+1/2,−z+1/2 |
|      {m_0yz|(0.5,0.5,0.5)}      | −x+1/2,+y+1/2,+z+1/2 |
|    {−3^+_xxx|(0.5,0.5,0.5)}     | −z+1/2,−x+1/2,−y+1/2 |
|      {m_xy0|(0.5,0.5,0.5)}      | +x+1/2,+y+1/2,−z+1/2 |
|      {m_x−xz|(0.5,0.5,0.5)}     | −y+1/2,−x+1/2,+z+1/2 |
|      {m_xy−y|(0.5,0.5,0.5)}     | +x+1/2,−z+1/2,−y+1/2 |
|    {−4^−_00z|(0.5,0.5,0.5)}     | −y+1/2,+x+1/2,−z+1/2 |
|      {m_x0z|(0.5,0.5,0.5)}      | +x+1/2,−y+1/2,+z+1/2 |
|   {−3^+_x−x−x|(0.5,0.5,0.5)}    | +z+1/2,+x+1/2,−y+1/2 |
|      {m_xxz|(0.5,0.5,0.5)}      | +y+1/2,+x+1/2,+z+1/2 |
|    {−4^+_x00|(0.5,0.5,0.5)}     | −x+1/2,+z+1/2,−y+1/2 |
|   {−3^+_−xx−x|(0.5,0.5,0.5)}    | −z+1/2,+x+1/2,+y+1/2 |
|      {m_xyy|(0.5,0.5,0.5)}      | +x+1/2,+z+1/2,+y+1/2 |
|   {−3^+_−x−xx|(0.5,0.5,0.5)}    | +z+1/2,−x+1/2,+y+1/2 |
|    {−4^−_x00|(0.5,0.5,0.5)}     | −x+1/2,−z+1/2,+y+1/2 |
|      {m_−xyz|(0.5,0.5,0.5)}     | −z+1/2,+y+1/2,−x+1/2 |
|    {−3^−_xxx|(0.5,0.5,0.5)}     | −y+1/2,−z+1/2,−x+1/2 |
|    {−4^−_0y0|(0.5,0.5,0.5)}     | +z+1/2,−y+1/2,−x+1/2 |
|    {−4^+_0y0|(0.5,0.5,0.5)}     | −z+1/2,−y+1/2,+x+1/2 |
|   {−3^−_−x−xx|(0.5,0.5,0.5)}    | −y+1/2,+z+1/2,+x+1/2 |
|      {m_xyx|(0.5,0.5,0.5)}      | +z+1/2,+y+1/2,+x+1/2 |
|   {−3^−_x−x−x|(0.5,0.5,0.5)}    | +y+1/2,−z+1/2,+x+1/2 |
|   {−3^−_−xx−x|(0.5,0.5,0.5)}    | +y+1/2,+z+1/2,−x+1/2 |
+─────────────────────────+─────────────────────+
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****
space group: 230 {'Hall': '−I 4bd 2c 3', 'HM': 'I a −3 d'}
Crystal system: Cubic
+x,+y,+z
−y+1/4,+x+3/4,+z+1/4
+x,−y,−z+1/2
+z,+x,+y

....
```
+─────────────────────────+─────────────────────+
|          Seitz          |        Jones        |
+─────────────────────────+─────────────────────+
|       {1|(0.0,0.0,0.0)}       |      +x,+y,+z       |
|  {4^+_00z|(0.25,0.75,0.25)}   | −y+1/4,+x+3/4,+z+1/4 |
|    {2_x00|(0.0,0.0,0.5)}      |    +x,−y,−z+1/2     |
|   {3^+_xxx|(0.0,0.0,0.0)}     |      +z,+x,+y       |
|    {2_00z|(0.5,0.0,0.5)}      |   −x+1/2,−y,+z+1/2  |
|  {2_xx0|(0.25,0.75,0.75)}     | +y+1/4,+x+3/4,−z+3/4 |
|  {2_0yy|(0.25,0.75,0.25)}     | −x+1/4,+z+3/4,+y+1/4 |
|  {4^−_00z|(0.25,0.25,0.75)}   | +y+1/4,−x+1/4,+z+3/4 |
|    {2_0y0|(0.5,0.0,0.0)}      |     −x+1/2,+y,−z    |
| {3^+_x−x−x|(0.5,0.0,0.5)}     |   −z+1/2,−x,+y+1/2  |
|  {2_x−x0|(0.25,0.25,0.25)}    | −y+1/4,−x+1/4,−z+1/4 |
|  {4^+_x00|(0.25,0.25,0.75)}   | +x+1/4,−z+1/4,+y+3/4 |
|  {3^+_−xx−x|(0.0,0.0,0.5)}    |    +z,−x,−y+1/2    |
|  {2_0y−y|(0.25,0.25,0.25)}    | −x+1/4,−z+1/4,−y+1/4 |
|  {3^+_−x−xx|(0.5,0.0,0.0)}    |    −z+1/2,+x,−y    |
|  {4^−_x00|(0.25,0.75,0.75)}   | +x+1/4,+z+3/4,−y+3/4 |
```

{2_x0x|(0.25,0.25,0.75)}	+z+1/4,−y+1/4,+x+3/4
{3^−_xxx|(0.0,0.0,0.0)}	+y,+z,+x
{4^−_0y0|(0.75,0.25,0.75)}	−z+3/4,+y+1/4,+x+3/4
{4^+_0y0|(0.75,0.25,0.25)}	+z+3/4,+y+1/4,−x+1/4
{3^−_−x−xx|(0.5,0.5,0.0)}	+y+1/2,−z+1/2,−x
{2_−x0x|(0.25,0.25,0.25)}	−z+1/4,−y+1/4,−x+1/4
{3^−_x−x−x|(0.5,0.0,0.0)}	−y+1/2,+z,−x
{3^−_−xx−x|(0.0,0.5,0.0)}	−y,−z+1/2,+x
{−1|(0.0,0.0,0.0)}	−x,−y,−z
{−4^+_00z|(0.25,0.75,0.25)}	+y+1/4,−x+3/4,−z+1/4
{m_0yz|(0.0,0.0,0.5)}	−x,+y,+z+1/2
{−3^+_xxx|(0.0,0.0,0.0)}	−z,−x,−y
{m_xy0|(0.5,0.0,0.5)}	+x+1/2,+y,−z+1/2
{m_x−xz|(0.25,0.75,0.75)}	−y+1/4,−x+3/4,+z+3/4
{m_xy−y|(0.25,0.75,0.25)}	+x+1/4,−z+3/4,−y+1/4
{−4^−_00z|(0.25,0.25,0.75)}	−y+1/4,+x+1/4,−z+3/4
{m_x0z|(0.5,0.0,0.0)}	+x+1/2,−y,+z
{−3^+_x−x−x|(0.5,0.0,0.5)}	+z+1/2,+x,−y+1/2
{m_xxz|(0.25,0.25,0.25)}	+y+1/4,+x+1/4,+z+1/4
{−4^+_x00|(0.25,0.25,0.75)}	−x+1/4,+z+1/4,−y+3/4
{−3^+_−xx−x|(0.0,0.0,0.5)}	−z,+x,+y+1/2
{m_xyy|(0.25,0.25,0.25)}	+x+1/4,+z+1/4,+y+1/4
{−3^+_−x−xx|(0.5,0.0,0.0)}	+z+1/2,−x,+y
{−4^−_x00|(0.25,0.75,0.75)}	−x+1/4,−z+3/4,+y+3/4
{m_−xyz|(0.25,0.25,0.75)}	−z+1/4,+y+1/4,−x+3/4
{−3^−_xxx|(0.0,0.0,0.0)}	−y,−z,−x
{−4^−_0y0|(0.75,0.25,0.75)}	+z+3/4,−y+1/4,−x+3/4
{−4^+_0y0|(0.75,0.25,0.25)}	−z+3/4,−y+1/4,+x+1/4
{−3^−_−x−xx|(0.5,0.5,0.0)}	−y+1/2,+z+1/2,+x
{m_xyx|(0.25,0.25,0.25)}	+z+1/4,+y+1/4,+x+1/4
{−3^−_x−x−x|(0.5,0.0,0.0)}	+y+1/2,−z,+x
{−3^−_−xx−x|(0.0,0.5,0.0)}	+y,+z+1/2,−x
{1|(0.5,0.5,0.5)}	+x+1/2,+y+1/2,+z+1/2
{4^+_00z|(0.75,0.25,0.75)}	−y+3/4,+x+1/4,+z+3/4
{2_x00|(0.5,0.5,0.0)}	+x+1/2,−y+1/2,−z
{3^+_xxx|(0.5,0.5,0.5)}	+z+1/2,+x+1/2,+y+1/2
{2_00z|(0.0,0.5,0.0)}	−x,−y+1/2,+z
{2_xx0|(0.75,0.25,0.25)}	+y+3/4,+x+1/4,−z+1/4
{2_0yy|(0.75,0.25,0.75)}	−x+3/4,+z+1/4,+y+3/4
{4^−_00z|(0.75,0.75,0.25)}	+y+3/4,−x+3/4,+z+1/4
{2_0y0|(0.0,0.5,0.5)}	−x,+y+1/2,−z+1/2
{3^+_x−x−x|(0.0,0.5,0.0)}	−z,−x+1/2,+y
{2_x−x0|(0.75,0.75,0.75)}	−y+3/4,−x+3/4,−z+3/4
{4^+_x00|(0.75,0.75,0.25)}	+x+3/4,−z+3/4,+y+1/4
{3^+_−xx−x|(0.5,0.5,0.0)}	+z+1/2,−x+1/2,−y
{2_0y−y|(0.75,0.75,0.75)}	−x+3/4,−z+3/4,−y+3/4
{3^+_−x−xx|(0.0,0.5,0.5)}	−z,+x+1/2,−y+1/2
{4^−_x00|(0.75,0.25,0.25)}	+x+3/4,+z+1/4,−y+1/4
{2_x0x|(0.75,0.75,0.25)}	+z+3/4,−y+3/4,+x+1/4
{3^−_xxx|(0.5,0.5,0.5)}	+y+1/2,+z+1/2,+x+1/2
{4^−_0y0|(0.25,0.75,0.25)}	−z+1/4,+y+3/4,+x+1/4
{4^+_0y0|(0.25,0.75,0.75)}	+z+1/4,+y+3/4,−x+3/4
{3^−_−x−xx|(0.0,0.0,0.5)}	+y,−z,−x+1/2
{2_−x0x|(0.75,0.75,0.75)}	−z+3/4,−y+3/4,−x+3/4

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|    {3^-_x-x-x|(0.0,0.5,0.5)}   |    -y,+z+1/2,-x+1/2   |
|    {3^-_-xx-x|(0.5,0.0,0.5)}   |    -y+1/2,-z,+x+1/2   |
|       {-1|(0.5,0.5,0.5)}       |  -x+1/2,-y+1/2,-z+1/2 |
|  {-4^+_00z|(0.75,0.25,0.75)}   |  +y+3/4,-x+1/4,-z+3/4 |
|     {m_0yz|(0.5,0.5,0.0)}      |    -x+1/2,+y+1/2,+z   |
|   {-3^+_xxx|(0.5,0.5,0.5)}     |  -z+1/2,-x+1/2,-y+1/2 |
|     {m_xy0|(0.0,0.5,0.0)}      |     +x,+y+1/2,-z      |
|  {m_x-xz|(0.75,0.25,0.25)}     |  -y+3/4,-x+1/4,+z+1/4 |
|  {m_xy-y|(0.75,0.25,0.75)}     |  +x+3/4,-z+1/4,-y+3/4 |
| {-4^-_00z|(0.75,0.75,0.25)}    |  -y+3/4,+x+3/4,-z+1/4 |
|     {m_x0z|(0.0,0.5,0.5)}      |    +x,-y+1/2,+z+1/2   |
| {-3^+_x-x-x|(0.0,0.5,0.0)}     |     +z,+x+1/2,-y      |
|   {m_xxz|(0.75,0.75,0.75)}     |  +y+3/4,+x+3/4,+z+3/4 |
| {-4^+_x00|(0.75,0.75,0.25)}    |  -x+3/4,+z+3/4,-y+1/4 |
|  {-3^+_-xx-x|(0.5,0.5,0.0)}    |    -z+1/2,+x+1/2,+y   |
|   {m_xyy|(0.75,0.75,0.75)}     |  +x+3/4,+z+3/4,+y+3/4 |
| {-3^+_-x-xx|(0.0,0.5,0.5)}     |    +z,-x+1/2,+y+1/2   |
| {-4^-_x00|(0.75,0.25,0.25)}    |  -x+3/4,-z+1/4,+y+1/4 |
|  {m_-xyz|(0.75,0.75,0.25)}     |  -z+3/4,+y+3/4,-x+1/4 |
|   {-3^-_xxx|(0.5,0.5,0.5)}     |  -y+1/2,-z+1/2,-x+1/2 |
| {-4^-_0y0|(0.25,0.75,0.25)}    |  +z+1/4,-y+3/4,-x+1/4 |
| {-4^+_0y0|(0.25,0.75,0.75)}    |  -z+1/4,-y+3/4,+x+3/4 |
|  {-3^-_-x-xx|(0.0,0.0,0.5)}    |     -y,+z,+x+1/2      |
|   {m_xyx|(0.75,0.75,0.75)}     |  +z+3/4,+y+3/4,+x+3/4 |
|  {-3^-_x-x-x|(0.0,0.5,0.5)}    |    +y,-z+1/2,+x+1/2   |
|  {-3^-_-xx-x|(0.5,0.0,0.5)}    |    +y+1/2,+z,-x+1/2   |
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