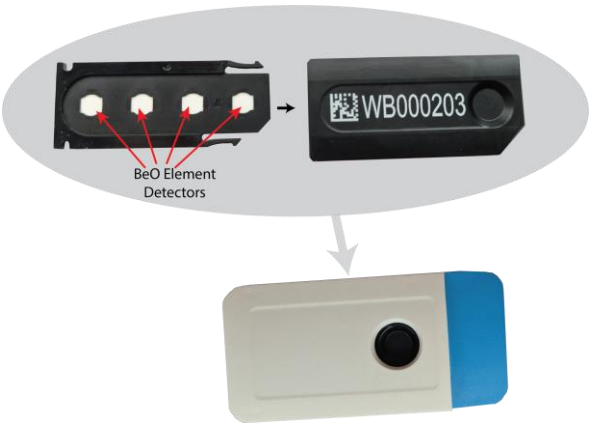
PSI Center for Corporate Services

OPTICALLY STIMULATED LUMINESCENCE (OSL)

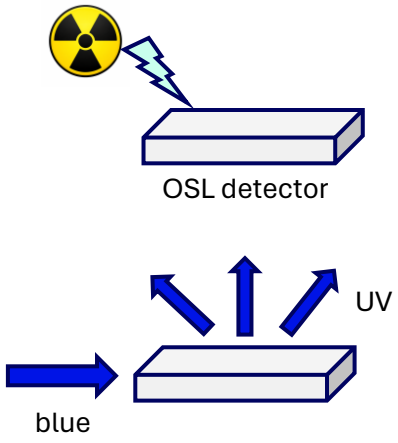
personal dosimeters for photons and beta rays

DESIGN



PRINCIPLE OF OPERATION

Radiation creates trapped charges in the crystal



UV light intensity is proportional to dose
(readout destroy trapped charges, erasing signal)

SPECIFICATIONS

Minimum detectable dose:
0.001 mSv*

Maximum dose:
5 Sv*

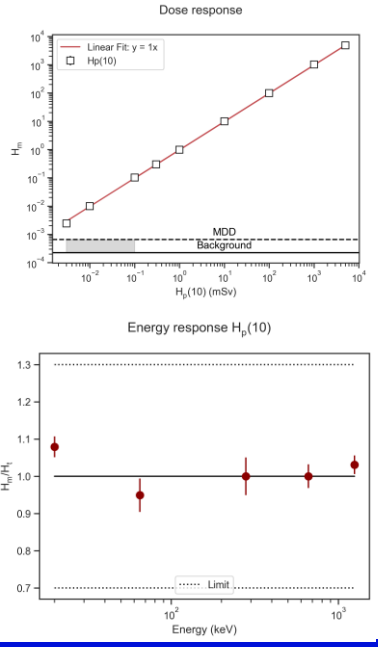
Photon energy range:
10 keV – 10 MeV* (see graph)

Beta energy range:
^{85}Kr - ^{90}Sr/^{90}Y*

Fading:
<10%/month

Reproducibility:
< 5 %*

DATA



* L. Bossin, “Performance of the myOSL 4.0 system for whole-body photon and beta dosimetry” PSI internal document TM-96-25-1767 (2025).

The information provided is for illustrative purposes only and should not be considered a substitute for the original data or details contained in the referenced materials.