

Publicationlist of Dr. Christof Walter Schneider

Research ID: <https://publons.com/researcher/3363245/christof-schneider/>

Orchid: <http://orcid.org/0000-0002-4292-8574>

Google: <https://scholar.google.ch/citations?hl=enpli=1user=VVPDv08AAAAJ>

Peer reviewed articles

1. X. Yao, C. W. Schneider, N. M. Bulgakova, A. V. Bulgakov, and T. Lippert
Ion expansion dynamics of laser induced plasmas
Sub. Dec. 2022, Phys. Rev. E.
2. Z. P. Teherani, N. Ohannessian, C. W. Schneider, D. Pergolesi, N. A. Shepelin, and T. Lippert
A Practical Guide to Pulsed Laser Deposition
Sub. Dec. 2022, Chemical Society Reviews.
3. C. W. Schneider and T. Lippert
PLD plasma plume analysis, a summary of the PSI contribution
Sub. Nov. 2022, Appl. Phys. A.
4. B. Biswas, V. F. Michel, Ø. S. Fjellvåg, G. Bimashofer, M. Döbeli, M. Jambor, L. Keller, E. Müller, V. Ukleev, E. V. Pomjakushina, D. Singh, U. Stuhr, V. A. F. Vaz, T. Lippert, and C. W. Schneider
Role of Dy on the magnetic properties of orthorhombic DyFeO₃
Phys. Rev. Materials **6**, 074401 (2022).
5. X. Yao, C. W. Schneider, A. Wokaun, and T. Lippert
New Insight into the Gas Phase Reaction Dynamics in Pulsed Laser Deposition of Multi-Elemental Oxides
Materials **15**, 4862 (2022).
6. F. Giorgianni, M. Udina, T. Cea, E. Paris, M. Caputo, M. Radovic, L. Boie, J. Sakai, C. W. Schneider, and S. L. Johnson
Terahertz Sum-frequency Excitation of Coherent Phonons in V₂O₃ Mediated by Intra-band Electronic Transitions
Commun Phys **5**, 103 (2022).
7. G. Bimashofer, S. Smetaczek, E. Gilardi, C. W. Schneider, A. Limbeck, T. Lippert, and J. Stahn
Growth of Li_xLa_ySr_zMnO₃ thin films by pulsed laser deposition: complex relation between thin film composition and deposition parameters
Applied Physics A **127**, 473 (2021).
8. Y. W. Windsor, M. Ramakrishnan, L. Rettig, A. Alberca, T. Lippert, C. W. Schneider, and U. Staub
Multiple magnetic ordering phenomena in multiferroic o-HoMnO₃
Phys. Rev. B **8** (43), 214423 (2020).
9. E. Burns, U. Aschauer, M. Döbeli, C. W. Schneider, D. Pergolesi, and T. Lippert
LaTiO₂N crystallographic orientation control significantly increases visible-light induced charge extraction
J. Mat. Chem. A **8** (43), 22867-22873 (2020).

10. E. Paris, Y. Tseng, E. M. Parschke, W. Zhang, M. H. Upton, A. Efimenko, K. Rolfs, D. E. McNally, L. Maurel, M. Naamneh, M. Caputo, V. N. Strocov, Z. Wang, D. Casa, C. W. Schneider, E. Pomjakushina, K. Wohlfeld, M. Radovic, and T. Schmitt
Strain engineering of the charge and spin-orbital interactions in Sr_2IrO_4
PNAS, 2012043117 (2020).
11. J. A. Krieger, A. Pertsova, S. R. Giblin, M. Döbeli, T. Prokscha, C. W. Schneider, A. Suter, T. Hesjedal, A. Balatzky, and Z. Salman
Proximity-induced odd-frequency superconductivity in a topological insulator
Phys. Rev. Letters **125**, 026802 (2020).
12. E. Gradauskaite, M. Campanini, B. Biswas, C. W. Schneider, M. Fiebig, M. D. Rossell, and M. Trassin
Robust In-Plane Ferroelectricity in Ultrathin Epitaxial Aurivillius Films
Adv. Materials Interfaces **7**, 2000202 (2020).
13. C. W. Schneider, M. Döbeli, Chr. Richter, and T. Lippert
Oxygen diffusion in oxide thin films grown on SrTiO_3
Phys. Rev. Materials **3**, 123401 (2019).
14. S. Mukherjee, K. Shimamoto, C. W. Schneider, and C. Niedermayer
Unique coexistence of incommensurate and commensurate magnetic order in TbMnO_3 strained films
Phys. Rev. Materials **3**, 104412 (2019).
15. Y. Xiang, C. W. Schneider, T. Lippert, and A. Wokaun
Manipulation of ion energies in pulsed laser deposition to improve film growth
Applied Physics A **125**, 344 (2019).
16. D. E. McNally, X. E. Lu, J. Pelliciari, S. Beck, M. Dantz, M. Naamneh, T. Shang, M. Medarde, C. W. Schneider, V. N. Strocov, E. V. Pomjakushina, C. Ederer, M. Radovic, and T. Schmitt
Electronic localization in CaVO_3 films via bandwidth control
npj Quantum Materials **4**, 6 (2019).
17. S. Mukherjee, K. Shimamoto, Y. W. Windsor, M. Ramakrishnan, S. Parchenko, U. Staub, L. Chapon, B. Ouladdiaf, M. Medarde, S. Tian, E. A. Müller, M. Kenzelmann, T. Lippert, C. W. Schneider, and C. Niedermayer
Multiferroic phase diagram of E -type RMnO_3 films studied by neutron and x-ray diffraction
Phys. Rev. B **98**, 174416 (2018).
18. N. S. Fedorova, Y. W. Windsor, C. Findler, M. Ramakrishnan, A. Bortis, L. Rettig, K. Shimamoto, E. M. Bothschafter, M. Porer, V. Esposito, Y. Hu, A. Alberca, T. Lippert, C. W. Schneider, U. Staub, and N. A. Spaldin
Relationship between crystal structure and multiferroic orders in orthorhombic perovskite manganites
Phys. Rev. Materials **2**, 104414 (2018).
19. J. X. Bai, R. W. Bosch, S. Ritter, C. W. Schneider, H. P. Seiffert, and S. Virtanen
Electrochemical and spectroscopic characterization of oxide films formed on Alloy 182 in simulated boiling water reactor environment: Effect of dissolved hydrogen
Corrosion Science **133**, 204-216 (2018).

20. J. Rehanek, M. Makita, P. Wiegand, P. Heimgartner, C. Pradervand, G. Seniutinas, U. Flechsig, V. Thominet, C.W. Schneider, A. Rodriguez Fernandez, C. David, L. Patthey, and P. Juranic
The hard X-ray Photon Single-Shot Spectrometer of SwissFEL's initial characterization
Journal of Instrumentation **12**, P05024 (2017).
21. J. Woerle, M. Camarda, C.W. Schneider, H. Sigg, U. Grossner, and J. Gobrecht
Analysis of Thin Thermal Oxides on (0001) SiC Epitaxial Layers
Materials Science Forum **897**, 119-122 (2017).
22. K. Shimamoto, S. Mukherjee, N.S. Bingham, A.K. Suszka, T. Lippert, C. Niedermayer, and C.W. Schneider
Single-axis dependent structural and multiferroic properties of orthorhombic RMnO₃ (R = Gd - Lu)
Phys. Rev. B **95**, 184105 (2017).
23. A. Ojeda-G-P, C.W. Schneider, M. Döbeli, T. Lippert, and A. Wokaun
Plasma plume dynamics, rebound, and recoating of the ablation target in pulsed laser deposition
J. Appl. Phys. **121**, 135306 (2017).
24. J. Woerle, F. Bisti, M.-A. Husanu, V.N. Strocov, C.W. Schneider, H. Sigg, J. Gobrecht, U. Grossner, and M. Camarda
Electronic Band Structure of Buried SiO₂/SiC Interface Investigated by Soft-X-Ray ARPES
Appl. Phys. Lett. **110**, 132101 (2017).
25. K. Shimamoto, S. Mukherjee, S. Manz, J.S. White, M. Trassin, M. Kenzelmann, L. Chapon, T. Lippert, M. Fiebig, C.W. Schneider, and C. Niedermayer
Tuning the multiferroic mechanisms of TbMnO₃ by epitaxial strain
Scientific Reports **7**, 44753 (2017).
26. A. Ojeda-G-P, C.W. Schneider, M. Döbeli, T. Lippert, and A. Wokaun
The importance of pressure and mass ratios when depositing multi-element oxide thin films by pulsed laser deposition
Applied Surface Science **389** (DOI: 10.1016/j.apsusc.2016.07.003), 126 (2016).
27. A. Ojeda-G-P, C.W. Schneider, T. Lippert, and A. Wokaun
Pressure and temperature dependence of the laser-induced plasma plume dynamics
Journal of Applied Physics **120** (DOI: 10.1063/1.4971251), 225301 (2016).
28. C.W. Schneider, K. Shimamoto, S. Mukherjee, S. Das, H. Luetkens, J. White, M. Bator, Y. Hu, J. Stahn, T. Prokscha, A. Suter, Z. Salman, A. Wokaun, M. Kenzelmann, T. Lippert, and C. Niedermayer
Coexisting multiple orderparameters in single layer o-LuMnO₃ films
Physical Review B **94**, 054423 (2016).
29. K. Shimamoto, M. Döbeli, T. Lippert, and C.W. Schneider
Cation ratio and ferroelectric properties of TbMnO₃ epitaxial films grown by pulsed laser deposition (vol 119, 184102, 2016)
Journal of Applied Physics **120** (DOI: 10.1063/1.4960764), 069901 (2016).
30. K. Shimamoto, Y.W. Windsor, Y. Hu, M. Ramakrishnan, L. Rettig, A. Alberca, E.M. Bothschafter, U. Staub, T. Lippert, and C.W. Schneider
Multiferroic properties of uniaxially compressed orthorhombic HoMnO₃ thin films (vol 108, 112904, 2016)
Appl. Phys. Lett. **109**, 059901 (2016).

31. A. Palla Papavlu, M. Filipescu, C.W. Schneider, S. Antohe, P. Ossi, G. Radn
32. K. Shimamoto, M. Döbeli, T. Lippert, and C.W. Schneider
Cation ratio and ferroelectric properties of TbMnO₃ epitaxial films grown by pulsed laser deposition
Journal of Applied Physics **119** (DOI: 10.1063/1.4960764), 184102 (2016).
33. K. Shimamoto, Y.W. Windsor, Y. Hu, M. Ramakrishnan, L. Rettig, A. Alberca, E.M. Bothschafter, U. Staub, T. Lippert, and C.W. Schneider
Multiferroic properties of uniaxially compressed orthorhombic HoMnO₃ thin films
Appl. Phys. Lett. **108**, 112904 (2016).
34. Z. Wang, N. Hauser, G. Singer, M. Trippel, R.A. Kubik-Huch, C.W. Schneider, and M. Stampanoni
Correspondence: Reply to Non-invasive classification of microcalcifications with phasecontrast X-ray mammography
Nature Communications **7** (10868), DOI: 10.1038/ncomms10868 (2016).
35. J. Chen, M. Döbeli, D. Stender, M.M. Lee, K. Conder, C.W. Schneider, A. Wokaun, and T. Lippert
Tracing the origin of oxygen for La_{0.6}Sr_{0.4}MnO₃ thin film growth by pulsed laser deposition
J. Appl. Phys. D **49**, 045201 (2016).
36. A. Ojeda-G-P, C.W. Schneider, M. Döbeli, T. Lippert, and A. Wokaun
The flip-over effect in pulsed laser deposition: is it relevant at high background gas pressures?
Applied Surface Science **357**, 2055 (2015).
37. J. Chen, D. Stender, M. Pichler, M. Döbeli, D. Pergolesi, C.W. Schneider, T. Lippert, and A. Wokaun
Tracing the plasma interactions for pulsed reactive crossed-beam laser ablation
J. Appl. Phys. **118**, 165306 (2015).
38. H. Boschker, C. Richter, E. Fillis-Tsirakis, C.W. Schneider, and J. Mannhart
Electron-phonon Coupling and the Superconducting Phase Diagram of the LaAlO₃-SrTiO₃ Interface
Scientific Reports **5**, 12309 (2015).
39. D. Stender, R. Frison, K. Conder, J.L.M. Rupp, B. Scherrer, J.M. Martynczuk, L.J. Gauckler, C.W. Schneider, T. Lippert, and A. Wokaun
Crystallization of zirconia based thin films
Phys. Chem. Chem. Phys. **17**, 18613 (2015).
40. Y.W. Windsor, M. Ramakrishnan, L. Rettig, A. Alberca, E.M. Bothschafter, U. Staub, K. Shimamoto, Y. Hu, T. Lippert, and C.W. Schneider
Interplay between magnetic order at Mn and Tm sites alongside the structural distortion in multiferroic films of o-TmMnO₃
Phys. Rev. B **91**, 235144 (2015).
41. A. Ojeda-G-P, C.W. Schneider, M. Döbeli, T. Lippert, and A. Wokaun
Angular distribution of species in pulsed laser deposition of La_xCa_{1-x}MnO₃
Applied Surface Science **336**, 150 (2015).

42. D. Stender, N. Schäuble, A. Weidenkaff, A. Montagne, R. Ghisleni, J. Michler, C. W. Schneider, A. Wokaun, and T. Lippert
Dense zig-zag microstructures in YSZ thin films by pulsed laser deposition
APL Materials **3**, 016104 (2015).
43. D. Pergolesi, V. Roddatis, E. Fabbri, C. W. Schneider, T. Lippert, E. Traversa, and J. A. Kilner
Probing the bulk ionic conductivity by thin film hetero-epitaxial engineering
Sci. Technol. Adv. Mater. **16**, 015001 (2015).
44. A. Evans, M. Martynczuk, D. Stender, C. W. Schneider, T. Lippert, and M. Prestat
Low-Temperature Micro-Solid Oxide Fuel Cells with Partially Amorphous $\text{La}_{0.6}\text{Sr}_{0.4}\text{CoO}_{3-\delta}$ Cathodes
Advanced Energy Materials **5**, 1400747 (2015).
45. Y. W. Windsor, S. W. Huang, Y. Hu, L. Rettig, A. Alberca, K. Shimamoto, V. Scagnoli, T. Lippert, C. W. Schneider, and U. Staub
Multiferroic properties of o-LuMnO_3 strain epitaxial thin films
Phys. Rev. Lett. **113**, 167202 (2014).
46. J. Chen, M. Döbeli, D. Stender, K. Conder, A. Wokaun, C. W. Schneider, and T. Lippert
Plasma interactions determine the composition in pulsed laser deposited thin films
Appl. Phys. Lett. **105**, 114104 (2014).
47. J. Chen, J. G. Lunney, T. Lippert, A. Ojeda-G-P, D. Stender, C. W. Schneider, and A. Wokaun
Langmuir probe measurements and mass spectrometry of plasma plumes generated by laser ablation of $\text{La}_{0.4}\text{Ca}_{0.6}\text{MnO}_3$
J. Appl. Phys. Lett. **116**, 073303 (2014).
48. Z. Wang, N. Hauser, G. Singer, M. Trippel, R. A. Kubik-Huch, C. W. Schneider, and M. Stampanoni
Non-invasive classification of microcalcifications with phasecontrast X-ray mammography
Nature Communications **5** (3797), DOI: 10.1038/ncomms4797 (2014).
49. J. Chen, A. Palla-Papavlu, L. Chen, X. Shi, M. Döbeli, D. Stender, S. Populoh, W. Xie, A. Weidenkaff, C. W. Schneider, A. Wokaun, and T. Lippert
Laser Deposition and Direct-Writing of Thermoelectric Misfit Cobaltite Thin Films
Appl. Phys. Lett. **104**, 231907 (2014).
50. L. Wang, E. Kirk, C. Wäckerlin, C. W. Schneider, M. Hojeij, J. Gobrecht, and J. Ekinici
Nearly-amorphous Mo-N gratings for ultimate resolution in extreme ultraviolet interference lithography
Nanotechnology **25**, 235305 (2014).
51. S. Das, K. Sen, I. Marozau, M. A. Uribe-Laverde, N. Biskup, M. Varela, Y. Khaydukov, O. Soltwedel, T. Keller, M. Döbeli, C. W. Schneider, and C. Bernhard
Structural, magnetic, and superconducting properties of pulsed-laser-deposition-grown $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4/\text{La}_{2/3}\text{Ca}_{1/3}\text{MnO}_3$ superlattices on (001)-oriented LaSrAlO_4 substrates
Phys. Rev. B **89**, 094511 (2014).
52. C. W. Schneider and C. Niedermayer
Magnetismus im Stress: Gleichzeitiger Anti- und Ferromagnetismus
Physik in unserer Zeit **44** (6), 267–268 (2013).

53. C. Richter, H. Boschker, W. Dietsche, E. Fillis-Tsirakis, R. Jany, F. Loder, L. F. Kourkoutis, D. A. Muller, J. R. Kirtley, C. W. Schneider, and J. Mannhart
High- T_c -Superconductor-like Gap Behavior of a Two- Dimensional Interface Superconductor
Nature **502** (7472), 528 (2013).
54. J. White, M. Bator, Y. Hu, H. Luetkens, J. Stahn, S. Capelli, S. Das, M. Döbeli, T. Lippert, V. K. Malik, J. Martynczuk, A. Wokaun, M. Kenzelmann, C. Niedermeyer, and C. W. Schneider
Strain-induced ferromagnetism in antiferromagnetic o - LuMnO_3 thin films
Phys. Rev. Lett. **111**, 037201 (2013).
55. M. Rössle, C. W. Wang, P. Marsik, M. Yadi-Rizi, K. W. Kim, A. Dubroka, I. Marozau, C. W. Schneider, J. Humlicek, D. Baeriswyl, and C. Bernhard
Optical probe of ferroelectric order in bulk and thin film perovskite titanates
Phys. Rev. B **88** (10), 104110 (2013).
56. M. Rössle, K. W. Kim, A. Dubroka, P. Marsik, C. W. Wang, R. Jany, C. Richter, J. Mannhart, C. W. Schneider, A. Frano, P. Wochner, Y. Li, B. Keimer, D. Kumar Shukla, J. Strempfer, and C. Bernhard
Electric-field-induced ferroelectric order in $\text{SrTiO}_3/\text{LaAlO}_3$
Phys. Rev. Lett. **110**, 136805 (2013).
57. M. Bator, C. W. Schneider, A. Wokaun, and T. Lippert
Oxidation of laser-induced plasma species in different background conditions
Applied Surface Science **278**, 47–51 (2013).
58. T. Mattle, J. Shaw-Stewart, A. Hintennach, C. W. Schneider, T. Lippert, and A. Wokaun
Shadowgraphy of laser induced forward transfer of different precursor materials for SnO_2 transfer
Applied Surface Science **278**, 77–81 (2013).
59. Y. Hu, D. Stender, T. Lippert, A. Wokaun, and C. W. Schneider
Lattice Distortion and Strain Relaxation in Epitaxial Thin Films of Multiferroic TbMnO_3 Probed by X-ray Diffractometry and Micro-Raman Spectroscopy
Applied Surface Science **278**, 92–95 (2013).
60. J. Chen, D. Stender, M. Bator, C. W. Schneider, T. Lippert, and A. Wokaun
Influence of an O_2 background gas on the composition and kinetic energies of species in laser induced $\text{La}_{0.4}\text{Ca}_{0.6}\text{MnO}_3$ plasmas
Applied Surface Science **278**, 317–320 (2013).
61. M. L. Reinle-Schmitt, C. Cancellieri, D. Li, D. Fontaine, M. Medarde, E. Pomjakushina, C. W. Schneider, S. Gariglio, Ph. Ghosez, J. M. Triscone, and P. R. Willmott
Intrinsic origin of the two-dimensional electron gas at polar oxide interfaces
Nature Communications **3**, 932 (2012).
62. Y. Hu, C. N. Borca, E. Kleymenov, M. Nachtegaal, B. Delley, M. Janousch, A. Dönni, M. Tachibana, H. Kitazawa, E. Takayama-Muromachi, M. Kenzelmann, C. Niedermeyer, T. Lippert, A. Wokaun, and C. W. Schneider
Experimental and ab initio investigations of the x-ray absorption near edge structure of orthorhombic LuMnO_3
Appl. Phys. Lett. **100**, 252901 (2012).

63. M. Bator, Y. Hu, M. Esposito, C. W. Schneider, A. Wokaun, and T. Lippert
Investigation of excited-state species in a laser-induced LuMnO₃ plasma by optical emission spectroscopy
Applied Surface Science **258**, 9355 – (9358) (2012).
64. Y. Hu, M. Bator, M. Kenzelmann, T. Lippert, C. Niedermayer, A. Wokaun, and C. W. Schneider
Strain and lattice distortion in (110)-epitaxial orthorhombic TbMnO₃ multiferroic thin films grown by pulsed laser deposition
Applied Surface Science **258**, 9323 – (9325) (2012).
65. T. Mattle, J. Shaw-Stewart, C. W. Schneider, T. Lippert, and A. Wokaun
Laser induced forward transfer aluminum layers: Process investigation by time resolved imaging
Applied Surface Science **258**, 9352 – (9354) (2012).
66. R. V. Chopdekar, V. K. Malik, A. Fraile Rodríguez, L. Le Guyader, Y. Takamura, A. Scholl, D. Stender, C. W. Schneider, C. Bernhard, F. Nolting, and L. J. Heyderman
Spatially Resolved Strain-imprinted Magnetic States in an Artificial Multiferroic
Phys. Rev. B **86** (014408) (June 2012; Editors Choice).
67. M. Bator, Y. Hu, H. Luetkens, C. Niedermayer, T. Prokscha, A. Suter, Z. Salman, M. Kenzelmann, C. W. Schneider, and T. Lippert
Depth-dependent spin dynamics in TbMnO₃ thin films measured by low energy muon spin relaxation
Physics Procedia **30**, 137 – 141 (2012).
68. V. K. Malik, I. Marozau, S. Das, B. Doggett, D. K. Satapathy, M. A. Uribe-Laverde, N. Biskup, M. Varela, C. W. Schneider, C. Marcelot, J. Stahn, and C. Bernhard
Pulsed laser deposition growth of heteroepitaxial YBa₂Cu₃O₇/La_{0.670}Ca_{0.33}MnO₃ superlattices on NdGaO₃ and Sr_{0.7}La_{0.3}Al_{0.65}Ta_{0.35}O₃ substrates
Phys. Rev. B **85**, 054514 (2012).
69. M. Esposito, M. Bator, M. Doebeli, T. Lippert, C. W. Schneider, and A. Wokaun
Negative ions: the overlooked species in thin film growth by pulsed laser deposition
Appl. Phys. Lett. **99**, 191501 (2011).
70. I. Marozau, A. Shkabko, M. Doebeli, T. Lippert, M. Mallepell, C. W. Schneider, A. Weidenkaff, and A. Wokaun
Pulsed Laser Deposition and Characterization of Perovskite-Type LaTiO_{3-x}N_x Thin Films
Acta Materialia **59**, 7145 – 7154 (2011).
71. F. Simmen, A. Foelske-Schmitz, P. Varma, M. Horisberger, T. Lippert, P. Novák, C. W. Schneider, and A. Wokaun
Surface layer formation on Li_{1+x}Mn₂O_{4-δ} thin film electrodes during electrochemical cycling
Electrochimica Acta **56**, 8539 – 8544 (2011).
72. S. A. Pauli, S. J. Leake, B. Delly, M. Björck, C. W. Schneider, C. M. Schlepütz, D. Martoccia, S. Paetel, J. Mannhart, and P. R. Willmott
Evolution of the Interfacial Structure of LaAlO₃ on SrTiO₃
Phys. Rev. Lett. **106**, 036101 (2011).
73. F. Simmen, M. Horisberger, B. Seyfang, T. Lippert, P. Novák, M. Doebeli, M. Mallepell, C. W. Schneider, and A. Wokaun
Glassy carbon - A promising substrate material for pulsed laser deposition of thin Li_{1+x}Mn₂O_{4-δ}
Appl. Surf. Science **257**, 5347 (2011).

74. C. W. Schneider, M. Esposito, I. Marozau, K. Konder, M. Doebeli, Y. Hu, M. Mallepell, A. Wokaun, and T. Lippert
The origin of oxygen in oxide thin films - role of the substrate
Appl. Phys. Lett. **97**, 192107 (2010).
75. A. Palla-Papavlu, V. Dinca, I. Paraico, A. Moldovan, J. Shaw-Stewart, C. W. Schneider, E. Kovacs, T. Lippert, and M. Dinescu
Novel approach for the microfabrication of polystyrene microbead arrays by laser induced forward transfer
J. Appl. Phys. **108**, 033111 (2010).
76. A. Dubroka, M. Rössle, K. W. Kim, V. K. Malik, L. Schulz, S. Thiel, C. W. Schneider, J. Mannhart, G. Herranz, M. Copie, M. Bibes, A. Barthélémy, and C. Bernhard
Dynamical properties and confinement of charge carriers at the interface between LaAlO_3 and SrTiO_3 studied by infrared ellipsometry
Phys. Rev. Lett. **104**, 156807 (2010).
77. F. Simmen, A. Hintennach, M. Horrisberger, T. Lippert, P. Novák, C. W. Schneider, and A. Wokaun
New aspects of the surface layer formation on $\text{Li}_{1+x}\text{Mn}_2\text{O}_{4-\delta}$ during electrochemical cycling
J. Electrochem. Soc. **157**, A1026 (2010).
78. M. Esposito, T. Lippert, C. W. Schneider, A. Wokaun, T. Donnelly, J. G. Lunney, H. Tellez, J. M. Vadillo, and J. J. Laserna
Pulsed Laser Ablation of Silver: Ion Dynamics in the Plasma Plume
J. Optoelectr. and Adv. Mat. **12** (3), 677–680 (2010).
79. I. Marozau, A. Shkabko, M. Döbeli, T. Lippert, D. Logvinovich, M. Mallepell, C. W. Schneider, A. Weidenkaff, and A. Wokaun
Optical Properties of Nitrogen-Substituted Strontium Titanate Thin Films Prepared by Pulsed Laser Deposition
Materials **2**, 1388–1401 (2009).
80. M. Sing, G. Berner, K. Groß, A. Müller, A. Ruff, A. Wetscherek, S. Thiel, J. Mannhart, S. A. Pauli, C. W. Schneider, P. R. Willmott, M. Gorgoi, F. Schäfers, and R. Claessen
Profiling the Interface Electron Gas of $\text{LaAlO}_3/\text{SrTiO}_3$ Heterostructures with Hard X-Ray Photoelectron Spectroscopy
Phys. Rev. Lett. **102**, 176805 (2009).
81. I. Marozau, A. Shkabko, G. Dinescu, M. Döbeli, T. Lippert, D. Logvinovich, M. Mallepell, C. W. Schneider, A. Weidenkaff, and A. Wokaun
Pulsed laser deposition and characterization of nitrogen-substituted SrTiO_3 thin films
Appl. Surf. Sci. **255**, 5252–5255 (2009).
82. S. Thiel, C. W. Schneider, L. Fitting Kourkoutis, D. A. Muller, N. Reyren, A. D. Caviglia, S. Gariglio, J.-M. Triscone, and J. Mannhart
Electron Scattering at Dislocations in $\text{LaAlO}_3/\text{SrTiO}_3$ Interfaces
Phys. Rev. Lett. **102**, 046809 (2009).
83. R. Held, C. W. Schneider, J. Mannhart, L. F. Allard, K. L. More, and A. Goyal
Low-angle grain boundaries in $\text{YBa}_2\text{Cu}_3\text{O}_{x-\delta}$ with high critical current densities
Phys. Rev. B **79**, 014515 (2009).

84. G. Kopitkovas, V. Deckert, T. Lippert, F. Raimondi, C.W. Schneider, and A. Wokaun
Chemical and structural changes of quartz surfaces due to structuring by laser-induced backside wet etching
Phys. Chem. Chem. Phys. **10**, 3195–3202 (2008).
85. R. Aguiar, D. Logvinovich, A. Weidenkaff, H. Karl, C.W. Schneider, A. Reller, and S.G. Ebbinghaus
Physical properties of (La,Sr)Ti(O,N)₃ thin films grown by pulsed laser deposition
Materials Research Bulletin **43**, 1376–1383 (2008).
86. C. Cheng, S. Thiel, G. Hammerl, C.W. Schneider, K.E. Andersen, C.S. Helberg, J. Mannhart, and J. Levy
Nanoscale Control of an Interfacial Metal-Insulator Transition at Room Temperature
Nature Materials **7**, 298–302 (2008).
87. F. Loder, A.P. Kampf, T. Kopp, J. Mannhart, C.W. Schneider, and Yu.S. Barash
h/e-Periodicity in Superconducting Loops
Nature Physics **4**, 111–115 (2008).
88. M. Moshe, C.W. Schneider, G. Binsky, and R.G. Mints
Maximum supercurrent in Josephson junctions with alternating critical current density
Phys. Rev. B **76**, 174518 (2007).
89. N. Reyren, A. Caviglia, J.-M. Triscone, S. Thiel, G. Hammerl, C. Richter, C.W. Schneider, T. Kopp, and J. Mannhart
Superconducting Interfaces of Insulating Oxides
Science **317**, 1196–1199 ((2007); published online 2 August 2007 (10.1126/science.1146006)).
90. R. Aguiar, A. Weidenkaff, C.W. Schneider, A. Reller, and S.G. Ebbinghaus
Synthesis and Properties of Oxynitrides (La, Sr)Ti(O, N)₃ thin films
Progress in Solid State Chemistry **35**, 291–298 (2007).
91. R. Held, J. Xu, A. Schmehl, C.W. Schneider, J. Mannhart, and M.R. Beasley
New Memory Concept for Superconducting Electronics
Appl. Phys. Lett. **89**, 163509 (2006).
92. C.W. Schneider, S. Thiel, G. Hammerl, C. Richter, and J. Mannhart
Microlithography of Electron Gases Formed at Interfaces in Oxide Heterostructures
Appl. Phys. Lett. **89**, 122101 (2006).
93. S. Thiel, G. Hammerl, A. Schmehl, C.W. Schneider, and J. Mannhart
Tunable Electron Gas with Memory Function in Perovskite Heterostructures
Science **313** (5795), 1942–1945 (2006); published online 24 August 2006 (10.1126/science.1131091).
94. A. Weber, C.W. Schneider, S. Hembacher, Ch. Schiller, S. Thiel, and J. Mannhart
Transport properties of low angle grain boundaries in Y_{1-x}Ca_xBa₂Cu₃O_{x-δ} films at high magnetic fields
Appl. Phys. Lett. **88**, 132510 (2006).
95. C. Dark, M.D. Kilburn, G. Hammerl, C.W. Schneider, J. Mannhart, and C.R.M. Governor
NanoSIMS Analysis of Ca Doping at a Grain Boundary in a Superconducting YBCO Ca-123/123 Bicrystal
Journal of Physics: Conference Series **43** (1), 272–276 (2006).

96. G. Logvenov, C. W. Schneider, and J. Mannhart
Studies of Superconducting Field Effect Transistors with Sheet Resistances Close to the Quantum Limit
 Appl. Phys. Lett. **86**, 202505 (2005).
97. A. Sawa, C. W. Schneider, and J. Mannhart
Unusual Current-Voltage Characteristics of Single Crystalline and Bicrystalline $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ Films
 Annalen der Physik (Leipzig) **13**, 595–599 (2004).
98. C. W. Schneider, G. Hammerl, G. Logvenov, T. Kopp, J. R. Kirtley, P. J. Hirschfeld, and J. Mannhart
Half- $h/2e$ Critical Current-Oscillations in SQUIDs
 Europhys. Lett. **68**, 86–92 (2004).
99. J. H. Ransley, P. McBrien, G. Burnell, E. J. Tarte, J. E. Evetts, R. R. Schulz, C. W. Schneider, A. Schmehl, H. Bielefeldt, H. Hilgenkamp, and J. Mannhart
Capacitance Measurements on Grain Boundaries in $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-d}$
 Phys. Rev. B **70**, 104502 (2004).
100. C. W. Schneider, S. Hembacher, G. Hammerl, R. Held, A. Schmehl, A. Weber, T. Kopp, and J. Mannhart
Electronic Transport through $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Grain Boundary Interfaces between 4.2 K and 300 K
 Phys. Rev. Lett. **92** (257003), 1–4 (2004).
101. G. Logvenov, A. Sawa, C. W. Schneider, and J. Mannhart
Influence of the Doping Concentration of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Drain-Source Channels on the Properties of Superconducting Field-Effect Devices
 Annalen der Physik (Leipzig) **13** (1-2), 66–67 (2004).
102. A. Weber, G. Hammerl, A. Schmehl, C. W. Schneider, and J. Mannhart
Optimierung von Bandsupraleitern
 Supraleitung und Tieftemperaturtechnik 2003, Statusseminar VDI Technologiezentrum, Physikalische Technologien, 13.-14.02.2003, Garmisch Partenkirchen, Hrsg: VDI-Technologiezentrum, in press (2003).
103. G. Hammerl, H. Bielefeldt, S. Leitenmeier, A. Schmehl, A. Weber, C. W. Schneider, and J. Mannhart
Improving Coated Conductors
 IEEE Trans. Appl. Supercond. **13** (2), 2625–2627 (2003).
104. G. Logvenov, A. Sawa, C. W. Schneider, and J. Mannhart
Influence of the Doping Concentration of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Drain-Source Channels on the Properties of Superconducting Field-Effect Devices
 Appl. Phys. Lett. **83** (17), 3528–3530 (2003).
105. A. Berenov, S. Foltyn, C. W. Schneider, P. Warburton, and J. MacManus-Driscoll
Determination of Ca Diffusion in YBCO Films by Secondary Ion Mass Spectroscopy
 Solid State Ionics **164**, 149–158 (2003).

106. C. W. Schneider, W. K. Neils, H. Bielefeldt, G. Hammerl, A. Schmehl, H. Raffy, Z. Z. Li, S. Oh, J. N. Eckstein, J. Mannhart, and D. J. van Harlingen
Pairing Symmetry in $\text{Bi}_2\text{Sr}_2\text{Ca}_1\text{Cu}_2\text{O}_{8+x}$
Europhys. Lett. **64** (4), 489–495 (2003).
107. M. G. Blamire, C. W. Schneider, G. Hammerl, and J. Mannhart
Conduction and Magnetoresistance in Doped Manganite Grain Boundaries
Appl. Phys. Lett. **82** (16), 2670–2673 (2003).
108. A. Weber, G. Hammerl, A. Schmehl, C. W. Schneider, J. Mannhart, B. Schey, M. Kuhn, R. Nies, B. Utz, and H.-W. Neumueller
Ca-doping Induced Enhancement of the Critical Currents of Coated Conductors Grown by Ion Beam Assisted Deposition
Applied Physics Letters **82** (5), 772–774 (2003).
109. B. Chesca, R. R. Schulz, B. Goetz, C. W. Schneider, H. Hilgenkamp, and J. Mannhart
d-Wave Induced Zero-Field Resonances in dc π -Superconducting Quantum Interference Devices
Physical Review Letters **88** (177003), 1–4 (2002).
110. R. R. Schulz, B. Chesca, B. Goetz, C. W. Schneider, A. Schmehl, H. Bielefeldt, H. Hilgenkamp, J. Mannhart, and C. C. Tsuei
Design and Realization of High- T_c dc π -SQUIDS
Proceedings of the International Symposium on "High Critical Temperature Superconductors Devices", Naples, ed.: A. Barone, F. Tafuri, 25–31 (2002).
111. W. K. Neils, D. J. van Harlingen, S. Oh, J. N. Eckstein, G. Hammerl, J. Mannhart, A. Schmehl, C. W. Schneider, and R. R. Schulz
Probing Unconventional Superconducting Symmetries Using Josephson Interferometry
Physica C **368**, 261–266 (2002).
112. G. Hammerl, H. Bielefeldt, S. Leitenmeier, A. Schmehl, C. W. Schneider, A. Weber, and J. Mannhart
Large Grain Boundary Area Superconductors
European Physical Journal B **27** (3), 299–301 (2002).
113. S. Leitenmeier, H. Bielefeldt, G. Hammerl, A. Schmehl, C. W. Schneider, and J. Mannhart
Coated Conductors Containing Grains with Big Aspect Ratios
Annalen der Physik (Leipzig) **11** (7), 497–502 (2002).
114. G. Hammerl, A. Herrnberger, A. Schmehl, A. Weber, K. Wiedenmann, C. W. Schneider, and J. Mannhart
Possible Solution of the Grain-Boundary Problem for Applications of High- T_c Superconductors
Applied Physics Letters **81** (17), 3209–3211 (2002).
115. J. Mannhart, H. Hilgenkamp, G. Hammerl, and C. W. Schneider
Experiments with d-Wave Superconductors
Physica Scripta (Proceedings of the Nobel-Symposium 2001 "Condensation and Coherence in Condensed Matter") **T102**, 107–110 (2002).
116. J. Mannhart, G. Hammerl, H. Bielefeldt, H. Hilgenkamp, S. Leitenmeier, A. Schmehl, C. W. Schneider, and R. R. Schulz
Grain Boundaries in High- T_c Superconductors - Data, Ideas and Prospects
Proceedings of 10th IWCC Workshop on Critical Currents, G ttingen 2001, 27–29 (2001).

117. G. Hammerl, H. Bielefeldt, B. Goetz, A. Schmehl, C.W. Schneider, R. R. Schulz, H. Hilgenkamp, and J. Mannhart
Doping-Induced Enhancement of Grain Boundary Critical Currents
IEEE Trans. Appl. Supercond. **11** (1), 2830–2837 (2001).
118. N.-C. Yeh, C.-T. Chen, G. Hammerl, J. Mannhart, S. Tajima, K. Yoshida, A. Schmehl, C. W. Schneider, and R. R. Schulz
Spatial Homogeneity and Doping Dependence of Quasiparticle Tunneling Spectra in Cuprate Superconductors
Physica C **364-365**, 450–457 (2001).
119. N.-C. Yeh, C.-T. Chen, S. Tajima, G. Hammerl, J. Mannhart, A. Schmehl, C.W. Schneider, R. R. Schulz, K. Yoshida, D. Garrigus, and M. Strasik
Evidence of Doping-Dependent Pairing Symmetry in Cuprate Superconductors
Physical Review Letters **87** (8), 087003 1–4 (2001).
120. C. W. Schneider, H. Bielefeldt, B. Goetz, G. Hammerl, A. Schmehl, R. R. Schulz, H. Hilgenkamp, and J. Mannhart
Interfaces in High- T_c Superconductors: Fundamental Insights and Possible Applications
Current Applied Physics **1**, 349–353 (2001).
121. G. Hammerl, C. W. Schneider, R. R. Schulz, B. Goetz, A. Schmehl, H. Bielefeldt, J. Mannhart, and H. Hilgenkamp
Optimierung von Hoch- T_c Korngrenzen mittels Dotieren
Supraleitung und Tieftemperaturtechnik 2000, Statusseminar VDI Technologiezentrum, Physikalische Technologien, 14.-15.12.2000, Garmisch Partenkirchen, Hrsg: VDI-Technologiezentrum, 383–386 (2001).
122. R. R. Schulz, B. Chesca, B. Goetz, C.W. Schneider, A. Schmehl, H. Bielefeldt, J. Mannhart, H. Hilgenkamp, and C. C. Tsuei
Realization of High- T_c dc π -SQUIDS
Physica C **341-348**, 1651–1654 (2000).
123. J. Mannhart, H. Bielefeldt, B. Goetz, A. Schmehl, C. W. Schneider, R. R. Schulz, and H. Hilgenkamp
Doping Induced Enhancement of the Critical Currents of Grain Boundaries in High- T_c Superconductors
Physica C **341-348**, 1393–1396 (2000).
124. B. Goetz, R. R. Schulz, C. W. Schneider, B. Chesca, A. Schmehl, H. Bielefeldt, H. Hilgenkamp, and J. Mannhart
Enhancement of Grain Boundary J_c by Doping, and Realization of a High- T_c Thin Film dc π -SQUID
Proc. 4th European Conference on Applied Superconductivity (EUCAS), September 1999, Sitges (Spain). Inst. Phys. Conf. Ser. No 167, 2000 IOP Publishing Ltd. **167**, 343–346 (2000).
125. R. R. Schulz, B. Chesca, B. Goetz, C. W. Schneider, A. Schmehl, H. Bielefeldt, H. Hilgenkamp, and J. Mannhart
Design and Realization of an All d-wave dc π -SQUID
Applied Physics Letters **76**, 912–914 (2000).
126. J. Mannhart, H. Bielefeldt, B. Goetz, H. Hilgenkamp, A. Schmehl, C. W. Schneider, and R. R. Schulz
Grain Boundaries in High- T_c Superconductors: Insights and Improvements
Philosophical Magazine B **80**, 827–834 (2000).

127. R. R. Schulz, B. Chesca, B. Goetz, C. W. Schneider, A. Schmehl, H. Bielefeldt, H. Hilgenkamp, J. Mannhart, and C. C. Tsuei
Design and Realization of High- T_c dc π -SQUIDs
Proceedings of the Workshop "Physics and Applications of High- T_c Josephson Junctions" Instituto Nazionale Fisica Della Materia, Neapel (Italy) (2000).
128. H. Hilgenkamp, B. Goetz, R. R. Schulz, C. W. Schneider, B. Chesca, G. Hammerl, A. Schmehl, H. Bielefeldt, and J. Mannhart
Understanding and Adjusting Grain Boundary Transport Properties in High- T_c Superconductors
Proceedings of the 2000 international Workshop on Superconductivity, Shimane (Japan), 33–36 (2000).
129. G. Hammerl, A. Schmehl, R. R. Schulz, B. Goetz, H. Bielefeldt, C. W. Schneider, H. Hilgenkamp, and J. Mannhart
Enhanced Supercurrent Density in Polycrystalline $YBa_2Cu_3O_{7-\delta}$ at 77 K from Calcium Doping of Grain Boundaries
Nature **407**, 162–164 (2000).
130. H. Hilgenkamp, R. R. Schulz, C. W. Schneider, B. Goetz, A. Schmehl, H. Bielefeldt, and J. Mannhart
Modifying Electronic Properties of Interfaces in High- T_c Superconductors by Doping
Physica C **326-327**, 7–11 (1999).
131. H. Hilgenkamp, R. R. Schulz, C. W. Schneider, B. Goetz, A. Schmehl, H. Bielefeldt, and J. Mannhart
Factors Controlling Transport Properties of Interfaces in High- T_c Superconductors
Proc. 1999 Spring Meeting of the Materials Research Society (MRS), San Francisco, Mat. Res. Soc. Symp. Proc. **574**, 261–272 (1999).
132. B. Goetz, H. Hilgenkamp, A. Schmehl, C. W. Schneider, R. R. Schulz, and J. Mannhart
Transporteigenschaften von Grenzflächen in Hoch- T_c Supraleitern
Supraleitung und Tieftemperaturtechnik: zum Statusseminar 19.-20.Oktober 1998; Berichte zu F&E-Projekten aus dem F&E-Umgebungsbereich, 408–411 (1999).
133. C. W. Schneider, R. R. Schulz, B. Goetz, A. Schmehl, H. Bielefeldt, H. Hilgenkamp, and J. Mannhart
Tailoring of High- T_c Josephson Junctions by Doping their Electrodes
Appl. Phys. Lett. **75**, 850–852 (1999).
134. A. Schmehl, B. Goetz, R. R. Schulz, C. W. Schneider, H. Bielefeldt, H. Hilgenkamp, and J. Mannhart
Doping Induced Enhancement of the Critical Currents of Grain Boundaries in $YBa_2Cu_3O_{7-\delta}$
Europhys. Lett. **47** (1), 110–115 (1999).
135. H. Hilgenkamp, A. Schmehl, B. Goetz, C. W. Schneider, R. R. Schulz, H. Bielefeldt, and J. Mannhart
Grain Boundary Critical Currents - A New Perspective
Superconductor Science and Technology **12**, 1043–1045 (1999).
136. C. W. Schneider, R. Moerman, D. Fuchs, R. Schneider, G. J. Gerritsma, and H. Rogalla
HTS Quasiparticle Injection Devices with Large Current Gain at 77 K
IEEE Trans. Appl. Supercond. **9** (2), 3648–3651 (1999).
137. D. Fuchs, C. W. Schneider, R. Schneider, and H. Rietschel
High Dielectric Constant and Tunability of Epitaxial $SrTiO_3$ Thin Film Capacitors
J. Appl. Phys. **85**, 7362–7369 (1999).

138. C. W. Schneider, R. Schneider, R. Moerman, G. J. Gerritsma, and H. Rogalla
Recent Progress in Developing HTS Quasi-Particle Injection Devices
Inst. Phys. Conf. Ser. **158**, 437–440 (1997).
139. C. W. Schneider, R. Moerman, F. J. G. Roesthuis, R. G. Wichern, G. J. Gerritsma, and H. Rogalla
Material Aspects for Preparing HTS Quasiparticle Injection Devices
IEEE Trans. Appl. Supercond. **7** (2), 2730–2733 (1997).
140. C. W. Schneider, R. Moerman, G. J. Gerritsma, and H. Rogalla
Materials Properties and Preparation of HTS Current Injection Transistors
3rd Workshop on Digital Applications, Josephson Junctions and 3-Terminal Devices, University of Twente, Enschede, The Netherlands, 127–133 (1996).
141. C. W. Schneider, R. Moerman, G. J. Gerritsma, and H. Rogalla
Current Gain using High- T_c Three Terminal Devices
Inst. Phys. Conf. Ser. **148**, 1677–1680 (1995).
142. C. W. Schneider, G. J. Gerritsma, and H. Rogalla
Injection and Three Terminal Devices
2nd Workshop on HTS Applications and New Materials, University of Twente, Enschede, The Netherlands, 91–98 (1995).
143. C. W. Schneider, R. E. Somekh, J. E. Evetts, D. J. Walker, I. M. Watson, F. Baudenbacher, S. N. Mao, X. X. Xi, Q. Li, Chuhee Kwon, T. Venkatesan, R. G. Humphreys, N. G. Chew, R. Gross, and A. Beck
Inductive Measurements of $\lambda(T)$ of bare YBCO Films and the Proximity Effect in YBCO/Normal Metal Bilayers
IEEE Trans. Appl. Supercond. **5** (2), 1432–1435 (1995).
144. C. W. Schneider, Z. H. Barber, J. E. Evetts, S. N. Mao, X. X. Xi, and T. Venkatesan
Penetration depth measurements for $Nd_{1.85}Ce_{0.15}CuO_4$ and NbCN thin films using a kinetic inductance technique
Physica C **233**, 77–84 (1994).

Book Chapter

1. A. Fluri, C. W. Schneider, and D. Pergolesi
In situ stress measurements of metal oxide thin films
in *Metal Oxide-Based Thin Film Structures - Formation, Characterization and Application of Interface-Based Phenomena*, Ed. Nini Pryds, Vincenzo Esposito, Series Editors: Ghenadii Korotcenkov
Metal Oxide Series, Elsevier Chapter **5**, –109-130 (2017).
2. A. Schleife, M. Allen, C. B. Arnold, S. M. Durbin, N. Pryds, C. W. Schneider, and T. Veal
Materials Research Society Symposium Proceedings: Preface
in *Materials Research Society Symposium Proceedings* **1494**, 2013.
3. C. W. Schneider and T. Lippert
Laser Ablation and Thin Film Deposition
in *Laser Processing of Materials: Fundamentals, Applications and Developments*, Ed. Peter Schaaf
Materials Science Series, Springer, 2010.