

Christof Schneider

List of Publications by Year in descending order

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132
papers

8,142
citations

136950

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46799

89
g-index

136
all docs

136
docs citations

136
times ranked

7396
citing authors

#	ARTICLE	IF	CITATIONS
1	Superconducting Interfaces Between Insulating Oxides. Science, 2007, 317, 1196-1199.	12.6	2,374
2	Tunable Quasi-Two-Dimensional Electron Gases in Oxide Heterostructures. Science, 2006, 313, 1942-1945.	12.6	1,423
3	Nanoscale control of an interfacial metal-insulator transition at room temperature. Nature Materials, 2008, 7, 298-302.	27.5	525
4	Profiling the Interface Electron Gas of LaAlO_3 with Hard X-Ray Photoelectron Spectroscopy. Physical Review Letters, 2009, 102, 176805.	7.8	260
5	Enhanced supercurrent density in polycrystalline $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ at 77 K from calcium doping of grain boundaries. Nature, 2000, 407, 162-164.	27.8	255
6	Interface superconductor with gap behaviour like a high-temperature superconductor. Nature, 2013, 502, 528-531.	27.8	209
7	Doping-induced enhancement of the critical currents of grain boundaries in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$. Europhysics Letters, 1999, 47, 110-115.	2.0	160
8	High dielectric constant and tunability of epitaxial SrTiO_3 thin film capacitors. Journal of Applied Physics, 1999, 85, 7362-7369.	2.5	155
9	Evolution of the interfacial structure of LaAlO_3 on SrTiO_3 . Physical Review Letters, 2011, 106, 036101.	7.8	132
10	Evidence of Doping-Dependent Pairing Symmetry in Cuprate Superconductors. Physical Review Letters, 2001, 87, 087003.	7.8	124
11	Tunable conductivity threshold at polar oxide interfaces. Nature Communications, 2012, 3, 932.	12.8	121
12	Design and realization of an all d-wave dc superconducting quantum interference device. Applied Physics Letters, 2000, 76, 912-914.	3.3	118
13	Non-invasive classification of microcalcifications with phase-contrast X-ray mammography. Nature Communications, 2014, 5, 3797.	12.8	110
14	The origin of oxygen in oxide thin films: Role of the substrate. Applied Physics Letters, 2010, 97, .	3.3	102
15	Microlithography of electron gases formed at interfaces in oxide heterostructures. Applied Physics Letters, 2006, 89, 122101.	3.3	99
16	Dynamical Response and Confinement of the Electrons at the LaAlO_3 . Physical Review Letters, 2010, 104, 156807.	7.8	98
17	Mechanisms of the laser plume expansion during the ablation of LiMn_2O_4 . Journal of Applied Physics, 2009, 105, .	2.5	75
18	Spatially resolved strain-imprinted magnetic states in an artificial multiferroic. Physical Review B, 2012, 86, .	3.2	68

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19	Strain-Induced Ferromagnetism in Antiferromagnetic LuMnO_3 Thin Films. <i>Physical Review Letters</i> , 2013, 111, 037201.	7.8	66
20	Low-Temperature Micro-Solid Oxide Fuel Cells with Partially Amorphous $\text{La}_{0.6}\text{Sr}_{0.4}\text{CoO}_3$ Cathodes. <i>Advanced Energy Materials</i> , 2015, 5, 1400747.	19.5	65
21	Magnetic flux periodicity of h/e in superconducting loops. <i>Nature Physics</i> , 2008, 4, 112-115.	16.7	53
22	Plasma interactions determine the composition in pulsed laser deposited thin films. <i>Applied Physics Letters</i> , 2014, 105, 114104.	3.3	46
23	Electron Scattering at Dislocations in $\text{LaAlO}_3/\text{SrTiO}_3$ Interface. <i>Physical Review Letters</i> , 2009, 102, 046809.	3.3	45
24	Laser Ablation and Thin Film Deposition. <i>Springer Series in Materials Science</i> , 2010, , 89-112.	0.6	41
25	Half- $h/2e$ critical current oscillations of SQUIDs. <i>Europhysics Letters</i> , 2004, 68, 86-92.	2.0	39
26	Microfabrication of polystyrene microbead arrays by laser induced forward transfer. <i>Journal of Applied Physics</i> , 2010, 108, .	2.5	39
27	Electron-phonon Coupling and the Superconducting Phase Diagram of the $\text{LaAlO}_3/\text{SrTiO}_3$ Interface. <i>Scientific Reports</i> , 2015, 5, 12309.	3.3	37
28	Superconducting memory based on ferromagnetism. <i>Applied Physics Letters</i> , 2006, 89, 163509.	3.3	35
29	Possible solution of the grain-boundary problem for applications of high-Tc superconductors. <i>Applied Physics Letters</i> , 2002, 81, 3209-3211.	3.3	34
30	Low-angle grain boundaries in YBaCuO high critical current densities. <i>Physical Review B</i> , 2009, 79, .	3.2	34
31	CuO proximity-induced odd-frequency superconductivity in a topological insulator. <i>Physical Review Letters</i> , 2020, 125, 026802.	7.8	34
32	Tailoring of high-Tc Josephson junctions by doping their electrodes. <i>Applied Physics Letters</i> , 1999, 75, 850-852.	3.3	32
34	Optical probe of ferroelectric order in bulk and thin-film perovskite titanates. <i>Physical Review B</i> , 2013, 88, .	3.2	32
35	Plasma plume dynamics, rebound, and recoating of the ablation target in pulsed laser deposition. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	32
36	Multiferroic Properties of LuMnO_3 by b -Axis Strain. <i>Physical Review Letters</i> , 2014, 113, 167202.	7.8	31

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37	Penetration depth measurements for Nd _{1.85} Ce _{0.15} CuO ₄ and NbCN thin films using a kinetic inductance technique. <i>Physica C: Superconductivity and Its Applications</i> , 1994, 233, 77-84.	1.2	26
38	Pulsed laser deposition and characterisation of perovskite-type LaTiO _{3-x} N _x thin films. <i>Acta Materialia</i> , 2011, 59, 7145-7154.	7.9	26
39	Tuning the multiferroic mechanisms of TbMnO ₃ by epitaxial strain. <i>Scientific Reports</i> , 2017, 7, 44753.	3.3	26
40	Single-axis-dependent structural and multiferroic properties of orthorhombic $R\text{Mn}_3\text{O}_7$. <i>Physical Review B</i> , 2017, 95, .	3.2	25
41	Robust In-Plane Ferroelectricity in Ultrathin Epitaxial Aurivillius Films. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000202.	3.7	25
42	Pulsed laser deposition and characterization of nitrogen-substituted SrTiO ₃ thin films. <i>Applied Surface Science</i> , 2009, 255, 5252-5255.	6.1	24
43	Modifying electronic properties of interfaces in high-T _c superconductors by doping. <i>Physica C: Superconductivity and Its Applications</i> , 1999, 326-327, 7-11.	1.2	23
44	d-Wave Induced Zero-Field Resonances in dc-Superconducting Quantum Interference Devices. <i>Physical Review Letters</i> , 2002, 88, 177003.	7.8	23
45	Aspects of the Surface Layer Formation on Li _{1+x} Mn ₂ O ₄ during Electrochemical Cycling. <i>Journal of the Electrochemical Society</i> , 2010, 157, A1026.	2.9	23
46	Pressure and temperature dependence of the laser-induced plasma plume dynamics. <i>Journal of Applied Physics</i> , 2016, 120, .	2.5	23
47	Ca-doping-induced enhancement of the critical currents of coated conductors grown by ion-beam-assisted deposition. <i>Applied Physics Letters</i> , 2003, 82, 772-774.	3.3	21
48	The importance of pressure and mass ratios when depositing multi-element oxide thin films by pulsed laser deposition. <i>Applied Surface Science</i> , 2016, 389, 126-134.	6.1	21
49	Synthesis and properties of oxynitrides (La,Sr)Ti(O,N) ₃ thin films. <i>Progress in Solid State Chemistry</i> , 2007, 35, 291-298.	7.2	20
50	Optical Properties of Nitrogen-Substituted Strontium Titanate Thin Films Prepared by Pulsed Laser Deposition. <i>Materials</i> , 2009, 2, 1388-1401.	2.9	20
51	Negative ions: The overlooked species in thin film growth by pulsed laser deposition. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	20
52	Strain engineering of the charge and spin-orbital interactions in Sr ₂ IrO ₄ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 24764-24770.	7.1	19
53	Electric-Field-Induced Polar Order and Localization of the Confined Electrons in $\text{LaAlO}_3/\text{SrTiO}_3$. <i>Physical Review Letters</i> , 2013, 110, 136805.	7.8	18
54	Angular distribution of species in pulsed laser deposition of La _x Ca _{1-x} MnO ₃ . <i>Applied Surface Science</i> , 2015, 336, 150-156.	6.1	18

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55	Laser induced forward transfer aluminum layers: Process investigation by time resolved imaging. Applied Surface Science, 2012, 258, 9352-9354.	6.1	17
56	Langmuir probe measurements and mass spectrometry of plasma plumes generated by laser ablation of La _{0.4} Ca _{0.6} MnO ₃ . Journal of Applied Physics, 2014, 116, .	2.5	17
57	The hard X-ray Photon Single-Shot Spectrometer of SwissFEL's initial characterization. Journal of Instrumentation, 2017, 12, P05024-P05024.	1.2	17
58	Laser deposition and direct-writing of thermoelectric misfit cobaltite thin films. Applied Physics Letters, 2014, 104, 231907.	3.3	16
59	Probing the bulk ionic conductivity by thin film hetero-epitaxial engineering. Science and Technology of Advanced Materials, 2015, 16, 015001.	6.1	16
60	Electronic localization in CaVO ₃ films via bandwidth control. Npj Quantum Materials, 2019, 4, .	5.2	16
61	Relationship between crystal structure and multiferroic orders in orthorhombic perovskite manganites. Physical Review Materials, 2018, 2, .	2.4	16
62	Oxygen diffusion in oxide thin films grown on SrTiO_3 . Physical Review Materials, 2019, 3, .	2.4	16
63	Influence of the doping concentration of Y _{1-x} CayBa ₂ Cu ₃ O _{7-x} drain-source channels on the properties of superconducting field-effect devices. Applied Physics Letters, 2003, 83, 3528-3530.	3.3	15
64	Physical properties of (La,Sr)Ti(O,N) ₃ thin films grown by pulsed laser deposition. Materials Research Bulletin, 2008, 43, 1376-1383.	5.2	15
65	Interplay between magnetic order at Mn and Tm sites alongside the structural distortion in multiferroic films of TmMnO ₃ . Physical Review B, 2015, 91, .	3.2	15
66	Conduction and magnetoresistance in doped manganite grain boundaries. Applied Physics Letters, 2003, 82, 2670-2672.	3.3	14
67	Multiferroic properties of uniaxially compressed orthorhombic HoMnO ₃ thin films. Applied Physics Letters, 2016, 108, .	3.3	14
68	Tracing the origin of oxygen for La _{0.6} Sr _{0.4} MnO ₃ thin film growth by pulsed laser deposition. Journal Physics D: Applied Physics, 2016, 49, 045201.	2.8	14
69	Grain boundaries in high-T _c superconductors: insights and improvements. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 827-834.	0.6	13
70	Determination of Ca diffusion in YBCO films by Secondary Ion Mass Spectroscopy. Solid State Ionics, 2003, 164, 149-158.	2.7	13
71	Chemical and structural changes of quartz surfaces due to structuring by laser-induced backside wet etching. Physical Chemistry Chemical Physics, 2008, 10, 3195.	2.8	13
72	Surface layer formation on Li _{1-x} Mn ₂ O ₄ thin film electrodes during electrochemical cycling. Electrochimica Acta, 2011, 56, 8539-8544.	5.2	13

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73	Material aspects for preparing HTS quasiparticle injection devices. IEEE Transactions on Applied Superconductivity, 1997, 7, 2730-2733.	1.7	12
74	Doping-induced enhancement of grain boundary critical currents. IEEE Transactions on Applied Superconductivity, 2001, 11, 2830-2837.	1.7	12
75	Experiments with d-wave Superconductors. Physica Scripta, 2002, T102, 107.	2.5	12
76	Capacitance measurements on grain boundaries in $Y_{1-x}Ca_xBa_2Cu_3O_{7-f}$. Physical Review B, 2004, 70, .	3.2	12
77	Electron Transport through $YBa_2Cu_3O_{7-f}$ Grain Boundary Interfaces between 4.2 and 300 K. Physical Review Letters, 2004, 92, 257003.	7.8	12
78	Doping induced enhancement of the critical currents of grain boundaries in high-Tc superconductors. Physica C: Superconductivity and Its Applications, 2000, 341-348, 1393-1396.	1.2	11
79	Structural, magnetic, and superconducting properties of pulsed-laser-deposition-grown $La_{1.85}Sr_{0.15}CuO_4$. Physical Review B, 2014, 89, .	3.2	10
80	Direct laser deposition of nanostructured tungsten oxide for sensing applications. Journal Physics D: Applied Physics, 2016, 49, 205101.	2.8	11
81	Grain boundary critical currents - a new perspective. Superconductor Science and Technology, 1999, 12, 1043-1045.	3.5	10
82	Multiferroic phase diagram of E -type MnO films studied by neutron and x-ray diffraction. Physical Review B, 2018, 98, .	3.2	10
83	Nearly amorphous Mo-N gratings for ultimate resolution in extreme ultraviolet interference lithography. Nanotechnology, 2014, 25, 235305.	2.6	9
84	The flip-over effect in pulsed laser deposition: Is it relevant at high background gas pressures?. Applied Surface Science, 2015, 357, 2055-2062.	6.1	9
85	Spatial homogeneity and doping dependence of quasiparticle tunneling spectra in cuprate superconductors. Physica C: Superconductivity and Its Applications, 2001, 364-365, 450-457.	1.2	8
86	Studies of superconducting field effect transistors with sheet resistances close to the quantum resistance. Applied Physics Letters, 2005, 86, 202505.	3.3	8
87	Shadowgraphic investigations into the laser-induced forward transfer of different SnO ₂ precursor films. Applied Surface Science, 2013, 278, 77-81.	6.1	8
88	Cation ratio and ferroelectric properties of TbMnO ₃ epitaxial films grown by pulsed laser deposition. Journal of Applied Physics, 2016, 119, 184102.	2.5	8
89	Correspondence: Reply to "Quantitative evaluation of X-ray dark-field images for microcalcification analysis in mammography". Nature Communications, 2016, 7, 10868.	12.8	8
90	HTS quasiparticle injection devices with large current gain at 77 K. IEEE Transactions on Applied Superconductivity, 1999, 9, 3648-3651.	1.7	7

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91	Large grain boundary area superconductors. European Physical Journal B, 2002, 27, 299-301.	1.5	7
92	Pairing symmetry in Bi ₂ Sr ₂ Ca ₁ Cu ₂ O _{8+x} . Europhysics Letters, 2003, 64, 489-495.	2.0	7
93	Strain and lattice distortion in (110)-epitaxial orthorhombic TbMnO ₃ multiferroic thin films grown by pulsed laser deposition. Applied Surface Science, 2012, 258, 9323-9325.	6.1	7
94	Electronic band structure of the buried SiO ₂ /SiC interface investigated by soft x-ray ARPES. Applied Physics Letters, 2017, 110, .	3.3	7
95	Electrochemical and spectroscopic characterization of oxide films formed on Alloy 182 in simulated boiling water reactor environment: Effect of dissolved hydrogen. Corrosion Science, 2018, 133, 204-216.	6.6	7
96	Glassy carbon "A promising substrate material for pulsed laser deposition of thin Li _{1+x} Mn ₂ O ₄ " electrodes. Applied Surface Science, 2011, 257, 5347-5353.	6.1	6
97	Composition and species evolution in a laser-induced LuMnO ₃ plasma. Applied Surface Science, 2012, 258, 9355-9358.	6.1	6
98	Oxidation of laser-induced plasma species in different background conditions. Applied Surface Science, 2013, 278, 47-51.	6.1	6
99	Tracing the plasma interactions for pulsed reactive crossed-beam laser ablation. Journal of Applied Physics, 2015, 118, .	2.5	6
100	Crystallization of zirconia based thin films. Physical Chemistry Chemical Physics, 2015, 17, 18613-18620.	2.8	6
101	Coexisting multiple order parameters in single-layer LuMnO ₃ films. Physical Review B, 2016, 94, .	3.2	6
102	Manipulation of ion energies in pulsed laser deposition to improve film growth. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	6
103	Probing unconventional superconducting symmetries using Josephson interferometry. Physica C: Superconductivity and Its Applications, 2002, 368, 261-266.	1.2	5
104	NanoSIMS analysis of Ca doping at a grain boundary in a superconducting YBCO Ca-123/123 bicrystal. Journal of Physics: Conference Series, 2006, 43, 272-276.	0.4	5
105	Experimental and ab initio investigations of the x-ray absorption near edge structure of orthorhombic LuMnO ₃ . Applied Physics Letters, 2012, 100, 252901.	3.3	5
106	Depth-dependent Spin Dynamics in TbMnO ₃ Thin Films Measured by Low Energy Muon Spin Relaxation. Physics Procedia, 2012, 30, 137-141.	1.2	5
107	LaTiO ₂ N crystallographic orientation control significantly increases visible-light induced charge extraction. Journal of Materials Chemistry A, 2020, 8, 22867-22873.	10.3	5
108	Multiple magnetic ordering phenomena in multiferroic HoMnO ₃ . Physical Review B, 2020, 102, .	3.2	5

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109	Realization of High-Tc dc $\tilde{\mu}$ -SQUIDS. Physica C: Superconductivity and Its Applications, 2000, 341-348, 1651-1654.	1.2	4
110	Coated conductors containing grains with big aspect ratios. Annalen Der Physik, 2002, 11, 497-502.	2.4	4
111	Dense zig-zag microstructures in YSZ thin films by pulsed laser deposition. APL Materials, 2015, 3, .	5.1	4
112	Growth of $\text{Li}_x\text{La}_y\text{Sr}_z\text{MnO}_3$ thin films by pulsed laser deposition: complex relation between thin film composition and deposition parameters. Applied Physics A: Materials Science and Processing, 2021, 127, 473.	2.3	4
113	Inductive measurements of $\tilde{\mu}(T)$ of bare YBCO films and the proximity effect in YBCO/normal metal bilayers. IEEE Transactions on Applied Superconductivity, 1995, 5, 1432-1435.	1.7	3
114	Interfaces in high-Tc superconductors: fundamental insights and possible applications. Current Applied Physics, 2001, 1, 349-353.	2.4	3
115	Transport properties of low angle grain boundaries in $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$ films at high magnetic fields. Applied Physics Letters, 2006, 88, 132510.	3.3	3
116	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, 2013, 278, 317-320.	6.1	3
117	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, 2013, 278, 92-95.	6.1	3
118	Maximum supercurrent in Josephson junctions with alternating critical current density. Physical Review B, 2007, 76, .	3.2	2
119	Laser ablation and thin film deposition. , 2011, , .		2
120	Analysis of Thin Thermal Oxides on (0001) SiC Epitaxial Layers. Materials Science Forum, 0, 897, 119-122.	0.3	2
121	In situ stress measurements of metal oxide thin films. , 2018, , 109-132.		2
122	Grain boundaries in high-Tc superconductors: insights and improvements. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 827-834.	0.6	2
123	Unique coexistence of incommensurate and commensurate magnetic order in TbMnO_3 strained films. Physical Review Materials, 2019, 3, .	2.4	2
124	Role of Dy on the magnetic properties of orthorhombic DyFeO_3 . Physical Review Materials, 2022, 6, .	2.4	2
125	Improving coated conductors. IEEE Transactions on Applied Superconductivity, 2003, 13, 2625-2627.	1.7	1
126	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, 2004, 13, 66-67.	2.4	1

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127	Unusual current-voltage characteristics of single crystalline and bicrystalline La _{0.7} Ca _{0.3} MnO ₃ films. Annalen Der Physik, 2004, 13, 595-599.	2.4	1
128	Addendum: The hard X-ray Photon Single-Shot Spectrometer of SwissFEL's initial characterization. Journal of Instrumentation, 2017, 12, A07001-A07001.	1.2	1
129	New Insight into the Gas Phase Reaction Dynamics in Pulsed Laser Deposition of Multi-Elemental Oxides. Materials, 2022, 15, 4862.	2.9	1
130	Factors Controlling Transport Properties of Interfaces in High-Tc Superconductors. Materials Research Society Symposia Proceedings, 1999, 574, 261.	0.1	0
131	Magnetismus im Stress: Gleichzeitiger Anti- und Ferromagnetismus. Physik in Unserer Zeit, 2013, 44, 267-268.	0.0	0
132	Experiments with d-wave Superconductors. , 2003, , .		0