Joachim Albrecht

List of Publications by Year
in descending order

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82 papers	1,330 citations	516215 16 h-index	360668 35 g-index
82 all docs	82 docs citations	82 times ranked	935 citing authors

#	Article	IF	Citations
1	Magneto-optical studies of current distributions in high-Tcsuperconductors. Reports on Progress in Physics, 2002, 65, 651-788.	8.1	420
2	Ferromagnetic/superconducting bilayer structure: A model system for spin diffusion length estimation. Physical Review B, 2004, 70, .	1.1	103
3	Dramatic Role of Critical Current Anisotropy on Flux Avalanches inMgB2Films. Physical Review Letters, 2007, 98, 117001.	2.9	56
4	Magnetic pinning of flux lines in heterostructures of cuprates and manganites. Physical Review B, 2005, 72, .	1.1	52
5	Bending of magnetic avalanches in MgB2 thin films. Applied Physics Letters, 2005, 87, 182501.	1.5	39
6	Anisotropic temperature-dependent current densities in vicinalYBa2Cu3O7âˆ’Î´. Physical Review B, 2005, 72, .	1.1	33
7	Universal temperature scaling of flux line pinning in high-temperature superconducting thin films. Journal of Physics Condensed Matter, 2007, 19, 216211.	0.7	32
8	Enhanced wear resistance of molybdenum nitride coatings deposited by high power impulse magnetron sputtering by using micropatterned surfaces. Surface and Coatings Technology, 2018, 333, 1-12.	2.2	26
9	Structure of Superconducting [BaCuOx]2/[CaCuO2]n Superlattices on SrTiO3(001) Investigated by X-ray Scattering. Physica Status Solidi A, 2001, 183, 353-364.	1.7	25
10	Observation of microscopic currents in superconducting ceramics. Physical Review B, 1998, 57, 10332-10335.	1.1	24
11	The enhancement of flux-line pinning in all-oxide superconductor/ferromagnet heterostructures. Superconductor Science and Technology, 2004, 17, S140-S144.	1.8	23
12	Influence of vortex-vortex interaction on critical currents across low-angle grain boundaries inYBa2Cu3O7âˆ’Î´thin films. Physical Review B, 2000, 63, .	1.1	22
13	Spin-polarized quasiparticle injection effects in YBCO thin films. Solid State Communications, 2005, 135, 461-465.	0.9	20
14	Synthesis of MgB2films in Mg vapour flow and their characterization. Superconductor Science and Technology, 2006, 19, 299-305.	1.8	20
15	Spectral distribution of activation energies inYBa2Cu3O7âˆ’Î´thin films. Physical Review B, 2000, 62, 15226-15229.	1.1	18
16	Temperature-dependent pinning of vortices in low-angle grain boundaries inYBa2Cu3O7âˆ’Î´. Physical Review B, 2003, 68, .	1.1	17
17	Highly homogeneous MgB2films prepared by a new post-annealing process. Superconductor Science and Technology, 2005, 18, 1313-1316.	1.8	17
18	Temperature-dependent critical currents in superconducting<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>YBa</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:ms ferromagnetic<mml:math xmlns:mml="http://www.w3.org/1. Physical Review B, 2009, 80, .	1.1	16

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19	The formation and propagation of flux avalanches in tailored MgB₂films. New Journal of Physics, 2010, 12, 093043.	1.2	16
20	Detecting magnetic flux distributions in superconductors with polarized x rays. Physical Review B, 2014, 90, .	1.1	16
21	Surface patterning of SrTiO3 by 30 keV ion irradiation. Surface Science, 2003, 547, L847-L852.	0.8	15
22	Stability of the current-carrying state in nonhomogeneous MgB<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>films. Physical Review B, 2011, 84, .	1.1	15
23	Gold nanocrystals in high-temperature superconducting films: creation of pinning patterns of choice. New Journal of Physics, 2013, 15, 113029.	1.2	15
24	Using magnetic coupling in bilayers of superconducting YBCO and soft-magnetic CoFeB to map supercurrent flow. Europhysics Letters, 2014, 106, 27002.	0.7	15
25	Hysteretic behavior of critical currents in heterostructures of high-temperature superconductors and ferromagnets. Europhysics Letters, 2003, 63, 881-887.	0.7	14
26	The temperature-dependent magnetization profile across an epitaxial bilayer of ferromagnetic La2/3Ca1/3MnO3and superconducting YBa2Cu3O7âˆ'Î´. New Journal of Physics, 2011, 13, 033023.	1.2	14
27	Dependence of the critical temperature of YBCO thin films on spin-polarized quasiparticle injection. Physica C: Superconductivity and Its Applications, 2007, 460-462, 32-35.	0.6	13
28	Experimental evidence of the dominant role of low-angle grain boundaries for the critical current density in epitaxially grownYBa2Cu3O7âˆ'Î´thin films. Physical Review B, 2005, 71, .	1.1	12
29	Transport properties of LCMO/YBCO hybrid structures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2007, 144, 15-18.	1.7	12
30	Transmission x-ray microscopy at low temperatures: Irregular supercurrent flow at small length scales. Physical Review B, 2018, 97, .	1.1	12
31	Electric field distribution at low-angle grain boundaries in high-temperature superconductors. Physical Review B, 2001, 65, .	1.1	11
32	High-resolution dichroic imaging of magnetic flux distributions in superconductors with scanning x-ray microscopy. Applied Physics Letters, 2015, 106, .	1.5	11
33	Inhomogeneous vortex distribution and magnetic coupling in oxide superconductorâ€“ferromagnet hybrids. New Journal of Physics, 2007, 9, 379-379.	1.2	10
34	Increased flux pinning in YBa ₂ Cu ₃ O _{7âˆ'Î´} thin-film devices through embedding of Au nano crystals. Europhysics Letters, 2011, 95, 68005.	0.7	10
35	Reduced friction on Î³-Mo2N coatings deposited by high power impulse magnetron sputtering on microstructured surfaces. Tribology International, 2017, 106, 41-45.	3.0	10
36	Magneto-optical studies of flux pinning in high-temperature superconductors. International Journal of Materials Research, 2002, 93, 1065-1070.	0.8	9

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37	Enhanced flux line pinning by substrate induced defects in YBCO thin films. Physica C: Superconductivity and Its Applications, 2004, 404, 18-21.	0.6	8
38	Planar high-Tc superconducting quantum interference device gradiometer for simultaneous measurements of two magnetic field gradients. Applied Physics Letters, 2008, 92, 122504.	1.5	7
39	Superoleophobic surfaces via functionalization of electrophoretic deposited SiO2 spheres on smart aluminum substrates. Applied Surface Science, 2019, 490, 56-60.	3.1	7
40	Influence of substrate irradiation on critical current density and microstructure in YBCO thin films. Physica C: Superconductivity and Its Applications, 2000, 341-348, 1979-1980.	0.6	6
41	Unusual flux jumps above 12 K in non-homogeneous MgB₂thin films. Superconductor Science and Technology, 2012, 25, 065010.	1.8	6
42	Low temperature X-ray imaging of magnetic flux patterns in high temperature superconductors. Journal of Applied Physics, 2015, 117, .	1.1	6
43	Current densities in low-angle grain boundaries of YBCO. Physica C: Superconductivity and Its Applications, 2000, 341-348, 1459-1460.	0.6	5
44	Anisotropic flux pinning in thin YBCO-films by substrate modifications. Physica C: Superconductivity and Its Applications, 2000, 332, 214-218.	0.6	5
45	The avalanche process in gold covered MgB2films. Superconductor Science and Technology, 2013, 26, 015007.	1.8	5
46	Wear properties of carbon-rich tungsten carbide films. Wear, 2022, 488-489, 204146.	1.5	5
47	Additive Manufacturing of Tungsten Carbide Surfaces with Extreme Wear Resistivity. Coatings, 2021, 11, 1240.	1.2	5
48	Chaotic vortex dynamics and low current phases in the remanent state of MgB2thin films. Superconductor Science and Technology, 2008, 21, 045016.	1.8	4
49	Preparation of a ferromagnetic barrier in YBa2Cu3O7â€“Î´ thinner than the coherence length. Journal of Applied Physics, 2015, 118, 223902.	1.1	4
50	The role of individual defects on the magnetic screening of HTSC films. New Journal of Physics, 2016, 18, 103044.	1.2	4
51	The Route to Supercurrent Transparent Ferromagnetic Barriers in Superconducting Matrix. ACS Nano, 2019, 13, 5655-5661.	7.3	4
52	Enhanced critical currents by silver sheeting ofYBa2Cu3O7â˜Îthin films. Physical Review B, 2002, 66, .	1.1	3
53	Interaction of ferromagnetic LCMO layers through a superconducting YBCO spacer. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1375-1376.	0.6	3
54	Superconducting phase formation in random neck syntheses: a study of the Yâ€“Baâ€“Cuâ€“O system by magneto-optics and magnetometry. Superconductor Science and Technology, 2009, 22, 045013.	1.8	3

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55	Magnetic properties of cobalt-covered MgB2films. Superconductor Science and Technology, 2009, 22, 045007.	1.8	3
56	Quantitative magneto-optical analysis of the role of finite temperatures on the critical state in YBCO thin films. Superconductor Science and Technology, 2016, 29, 114002.	1.8	3
57	Magnetic x-ray microscopy at low temperatures â€“ Visualization of flux distributions in superconductors. AIP Conference Proceedings, 2016, , .	0.3	3
58	Smooth and rapid microwave synthesis of MIL-53(Fe) including superparamagnetic Î³-Fe2O3 nanoparticles. Journal of Magnetism and Magnetic Materials, 2017, 444, 168-172.	1.0	3
59	Advanced magneto-optical Kerr effect measurements of superconductors at low temperatures. AIP Advances, 2017, 7, .	0.6	3
60	Dendritic flux instability in MgB₂films above liquid hydrogen temperature. Superconductor Science and Technology, 2018, 31, 025005.	1.8	3
61	Magnetic flux penetration into micron-sized superconductor/ferromagnet bilayers. Superconductor Science and Technology, 2020, 33, 025015.	1.8	3
62	Soft-magnetic coatings as possible sensors for magnetic imaging of superconductors. Superconductor Science and Technology, 2020, 33, 015002.	1.8	3
63	Bound and stable vortexâ€“antivortex pairs in high-T _c superconductors. New Journal of Physics, 2020, 22, 123035.	1.2	3
64	On the imaging of the flux-line lattice of a type-II superconductor by soft X-ray absorption microscopy. Journal of Synchrotron Radiation, 2005, 12, 251-253.	1.0	2
65	Spin-polarized quasiparticles injection effects in the normal state of YBCO thin films. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1088-1089.	0.6	2
66	Unusual propagation of magnetic avalanches in gold covered MgB2. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1245-1246.	0.6	2
67	Microstructure and superconducting properties of MgB2 films prepared by solid state reaction of multilayer precursors of the elements. Thin Solid Films, 2012, 520, 6985-6988.	0.8	2
68	Stabilization of the dissipation-free current transport in inhomogeneous MgB 2 thin films. Physica C: Superconductivity and Its Applications, 2014, 506, 1-5.	0.6	2
69	Increasing the sensor performance using Au modified high temperature superconducting YBa₂Cu₃O_{7-Î´}thin films. Journal of Physics: Conference Series, 2014, 507, 012024.	0.3	2
70	Magnetically induced anisotropy of flux penetration into strong-pinning superconductor/ferromagnet bilayers. New Journal of Physics, 2019, 21, 113019.	1.2	2
71	Hysteretic behavior of critical currents in superconductor-ferromagnet heterostructures. Physica C: Superconductivity and Its Applications, 2004, 408-410, 482-483.	0.6	1
72	Substrate-induced current anisotropy in YBa2Cu3O7â^'Î´ thin films. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1190-1191.	0.6	1

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73	High-Resolution Analysis of Currents at Low-Angle Grain Boundaries in YBCO Thin Films Using Magnetooptics and Magnetic X-Ray Microscopy. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-6.	1.1	1
74	Enhanced performance of microbial electrolysis cells using microstructured electrodes. Materialwissenschaft Und Werkstofftechnik, 2021, 52, 279-288.	0.5	1
75	Transient increase of Tc and Jc in superconducting/metallic heterostructures. Materials Chemistry and Physics, 2021, 263, 124390.	2.0	1
76	Controlling Friction and Wear with Anisotropic Microstructures in MoN-Coated Surfaces. Tribology Letters, 2021, 69, 1.	1.2	1
77	The role of spin diffusion quasiparticle in CMR/HTSC heterostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 1836-1839.	0.8	0
78	DEPENDENCE OF THE CRITICAL TEMPERATURE OF YBCO THIN FILMS ON SPINPOLARIZED QUASIPARTICLE INJECTION. International Journal of Modern Physics B, 2007, 21, 3303-3306.	1.0	0
79	Tailored appearance of metal coatings on microengineered polyurethane films. Materialwissenschaft Und Werkstofftechnik, 2014, 45, 628-634.	0.5	0
80	Low-Angle Grain Boundaries of YBCO in External Magnetic Fields. , 2004, , 159-165.		0
81	Magneto-optical studies of flux pinning in high-temperature superconductors. International Journal of Materials Research, 2022, 93, 1065-1070.	0.1	0
82	Ferromagnetism and Superconductivity in CaRuO3/YBa2Cu3O7-Î´ Heterostructures. Materials, 2022, 15, 2345.	1.3	0