Bernhard Holzapfel

List of Publications by Year
in descending order

102	1,899	257101	301761
papers	citations	24 h-index	39 g-index

104	104	104	1436
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nickel-refractory metal substrate tapes with high cube texture stability. Superconductor Science and Technology, 2001, 14, 152-159.	1.8	136
2	Epitaxial Growth of Superconducting Ba(Fe_{1-x}Co_x)₂As₂Thin Films on Technical Ion Beam Assisted Deposition MgO Substrates. Applied Physics Express, 2011, 4, 013103.	1.1	79
3	Touching the properties of NbTi by carbon doped tapes with mechanically alloyed MgB2. Applied Physics Letters, 2007, 91, .	1.5	77
4	Comparing properties of substrate-constrained and freestanding epitaxial Niâ€“Mnâ€“Ga films. Acta Materialia, 2010, 58, 3415-3421.	3.8	73
5	Large pinning forces and matching effects in YBa2Cu3O7-Î´ thin films with Ba2Y(Nb/Ta)O6 nano-precipitates. Scientific Reports, 2016, 6, 21188.	1.6	73
6	Thin Prâ€“Baâ€“Cuâ€“O Film Antenna-Coupled THz Bolometers for Room Temperature Operation. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 103-109.	2.0	60
7	Ink-jet printing of YBa₂Cu₃O₇superconducting coatings and patterns from aqueous solutions. Journal of Materials Chemistry, 2012, 22, 3717-3726.	6.7	58
8	Highly textured La2Zr2O7buffer layers for YBCO-coated conductors prepared by chemical solution deposition. Superconductor Science and Technology, 2005, 18, 334-339.	1.8	57
9	Intrinsic pinning and the critical current scaling of clean epitaxial Fe(Se,Te) thin films. Physical Review B, 2013, 87, .	1.1	51
10	High field superconducting properties of Ba(Fe1â^'xCox)2As2 thin films. Scientific Reports, 2015, 5, 17363.	1.6	49
11	Improved REBa2Cu3O7â^'x (RE = Y, Gd) structure and superconducting properties by addition of acetylacetone in TFA-MOD precursor solutions. Journal of Materials Chemistry A, 2014, 2, 4932.	5.2	45
12	Generic Fe buffer layers for Fe-based superconductors: Epitaxial FeSe1â^'xTex thin films. Applied Physics Letters, 2011, 99, .	1.5	44
13	Oxypnictide SmFeAs(O,F) superconductor: a candidate for highâ€“field magnet applications. Scientific Reports, 2013, 3, 2139.	1.6	42
14	Intrinsic and extrinsic properties of epitaxial Nd2Fe14B films. Applied Physics Letters, 2003, 82, 3710-3712.	1.5	39
15	Highly alloyed Niâ€“W substrates for low AC loss applications. Superconductor Science and Technology, 2013, 26, 085024.	1.8	38
16	High-field transport properties of a P-doped BaFe2As2 film on technical substrate. Scientific Reports, 2017, 7, 39951.	1.6	38
17	La2Zr2O7 and Ceâ€“Gdâ€“O buffer layers for YBCO coated conductors using chemical solution deposition. Physica C: Superconductivity and Its Applications, 2005, 426-431, 979-984.	0.6	34
18	Chemical solution deposition of YBa2Cu3O7â^'x films by dip coating. Physica C: Superconductivity and Its Applications, 2002, 372-376, 46-49.	0.6	30

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19	Hall-plot of the phase diagram for Ba(Fe1â^'xCox)2As2. Scientific Reports, 2016, 6, 28390.	1.6	30
20	Large critical current densities and pinning forces in CSD-grown superconducting GdBa₂Cu₃O_{7â^'x}-BaHfO₃nanocomposite films. Superconductor Science and Technology, 2017, 30, 094007.	1.8	30
21	Optimization of YBa2Cu3O7â^Î´submicrometer structure fabrication. Applied Physics Letters, 1993, 63, 1149-1151.	1.5	28
22	Rolling and recrystallisation textures in Cuâ€“Al, Cuâ€“Mn and Cuâ€“Ni alloys. Journal of Materials Science, 2007, 42, 7586-7591.	1.7	27
23	First operation of the KATRIN experiment with tritium. European Physical Journal C, 2020, 80, 1.	1.4	26
24	Low angle grain boundary transport properties of undoped and doped Y123 thin film bicrystals. Physica C: Superconductivity and Its Applications, 2000, 341-348, 1431-1434.	0.6	25
25	Highly textured oxypnictide superconducting thin films on metal substrates. Applied Physics Letters, 2014, 105, .	1.5	25
26	The Aerosol Deposition Method: A Modified Aerosol Generation Unit to Improve Coating Quality. Materials, 2018, 11, 1572.	1.3	25
27	<inline-formula> <tex-math notation="TeX">$hbox{BaHfO}_{3}$</tex-math> </inline-formula>-Doped Thick <inline-formula> <tex-math notation="TeX">$hbox{YBa}_{2}hbox{Cu}_{3}hbox{O}_{7-delta}$</tex-math> </inline-formula> Films on Highly Alloyed Textured Ni-W Tapes. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.1	24
28	Superconducting HfO2-YBa2Cu3O7â^Î´ Nanocomposite Films Deposited Using Ink-Jet Printing of Colloidal Solutions. Coatings, 2020, 10, 17.	1.2	24
29	Formation and destruction of cube texture in MgO films using ion beam assisted pulsed laser deposition. Journal of Applied Physics, 2001, 90, 1035-1039.	1.1	23
30	Paramagnetic substrates for thin film superconductors: Niâ€“W and Niâ€“Wâ€“Cr. Scripta Materialia, 2010, 62, 512-515.	2.6	22
31	$J_{m c}$ Scaling and Anisotropies in Co-Doped Ba-122 Thin Films. IEEE Transactions on Applied Superconductivity, 2011, 21, 2887-2890.	1.1	22
32	Induced lattice strain in epitaxial Fe-based superconducting films on CaF2 substrates: A comparative study of the microstructures of SmFeAs(O,F), Ba(Fe,Co)2As2, and FeTe0.5Se0.5. Applied Physics Letters, 2014, 104, .	1.5	22
33	Effects of oxide particle addition on superconductivity in nanocrystalline MgB2 bulk samples. Physica C: Superconductivity and Its Applications, 2005, 432, 15-24.	0.6	21
34	Finite-size effects in highly ordered ultrathin FePt films. Physical Review B, 2010, 82, .	1.1	21
35	As vacancies, local moments, and Pauli limiting in LaFeAs<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi /><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>Î´</mml:mi></mml:mrow></mml:msub></mml:mrow><mml:mathvariant="normal">O</mml:mi><mml:mrow><mml:mn>0.9</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mi mathvariant="normal">F</mml:mi><mml:mrow><mml:mn>0.1</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>sup Physical Review B, 2011, 84, .	1.1	21
36	Thickness dependence of structural and transport properties of Co-doped BaFe2As2on Fe buffered MgO substrates. Superconductor Science and Technology, 2011, 24, 125009.	1.8	21

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37	Bicrystalline Grain Boundary and Hybrid SNS Junctions Based on Ba-122 Thin Films. IEEE Transactions on Applied Superconductivity, 2013, 23, 7300104-7300104.	1.1	18
38	Influence of artificial pinning centers on structural and superconducting properties of thick YBCO films on ABAD-YSZ templates. Superconductor Science and Technology, 2018, 31, 044007.	1.8	18
39	Large grained single-crystalline-like germanium thin film on flexible Niâ€“W tape. RSC Advances, 2014, 4, 21042-21048.	1.7	17
40	Electrochemical Deposition of FeSe on RABiTS Tapes. Journal of the Physical Society of Japan, 2016, 85, 015001.	0.7	17
41	Improved Pinning in YBCO Based Quasi-Multilayers Prepared by On- and Off-Axis Pulsed Laser Deposition. IEEE Transactions on Applied Superconductivity, 2007, 17, 3733-3736.	1.1	16
42	Chemical solution deposition of Y_{1â^'x}Gd_xBa₂Cu₃O_{7â^'Î´}â€“BaHfO₃ nanocomposite films: combined influence of nanoparticles and rare-earth mixing on growth conditions and transport properties. RSC Advances, 2018, 8, 42398-42404.	1.7	15
43	Angular-dependent vortex pinning mechanism in YBa2Cu3O7â^'Î´/YSZ quasi-multilayer. Journal of Applied Physics, 2008, 104, 033920.	1.1	13
44	Thick High <inline-formula> <tex-math notation="LaTeX">$J_mathrm{c} $</tex-math></inline-formula> YBCO Films on ABAD-YSZ Templates. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.1	13
45	Anisotropy and Enhanced In-Field Performance of Thick BaHfO₃-Doped <inline-formula> <tex-math notation="LaTeX">$ext{YBa}_{2}ext{Cu}_{3}ext{O}_{7-delta}$</tex-math> </inline-formula> Films on ABAD-YSZ Templates. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.1	13
46	Preparation of Conductive Buffer Architectures Based on IBAD-TiN. IEEE Transactions on Applied Superconductivity, 2009, 19, 3447-3450.	1.1	12
47	Highly Responsive Yâ€“Baâ€“Cuâ€“O Thin Film THz Detectors With Picosecond Time Resolution. IEEE Transactions on Applied Superconductivity, 2013, 23, 2400206-2400206.	1.1	12
48	Tailoring Microstructure and Superconducting Properties in Thick BaHfO3 and Ba2 Y(Nb/Ta)O6 Doped YBCO Films on Technical Templates. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-7.	1.1	12
49	Observation of zero resistance in as-electrodeposited FeSe. Solid State Communications, 2018, 270, 72-75.	0.9	12
50	Mechanism of texture formation in MgO buffer layers using ion-beam assisted laser deposition. Physica C: Superconductivity and Its Applications, 2002, 372-376, 825-827.	0.6	11
51	Simplified Procedure for Estimating Epitaxy of ${m La}_{2}{m Zr}_{2}{m O}_{7}$-Buffered NiW RABITS Using XRD. IEEE Transactions on Applied Superconductivity, 2009, 19, 3307-3310.	1.1	11
52	Interlayer structure in YBCO-coated conductors prepared by chemical solution deposition. Superconductor Science and Technology, 2013, 26, 075016.	1.8	10
53	Atomic and electronic structures of BaHfO₃-doped TFA-MOD-derived YBa₂Cu₃O_{7â^'Î´}thin films. Superconductor Science and Technology, 2015, 28, 115009.	1.8	10
54	Investigation of the Electrical Field Sensitivity of Sub-Î¼m Yâ€“Baâ€“Cuâ€“O Detectors. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-6.	1.1	10

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55	Anisotropy of flux pinning properties in superconducting (Li,Fe)OHFeSe thin films. Superconductor Science and Technology, 2020, 33, 114009.	1.8	10
56	Ba₂Y(Nb/Ta)O₆â€“Doped YBCO Films on Biaxially Textured Niâ€“5at.% W Substrates. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	9
57	Rapid Pyrolysis of SmBa2Cu3O7-Î´ Films in CSD-MOD Using Extremely-Low-Fluorine Solutions. Coatings, 2020, 10, 31.	1.2	9
58	Effect of silver on cube texture formation in nickel substrate tapes. Superconductor Science and Technology, 2005, 18, 770-775.	1.8	8
59	XPS depth profiling investigations on La2Zr2O7 layers prepared by chemical solution deposition. Mikrochimica Acta, 2006, 156, 121-124.	2.5	8
60	High Energy Milled Ex Situ MgB2 as Precursor for Superconducting Tapes Without Critical Current Anisotropy. Journal of Superconductivity and Novel Magnetism, 2012, 25, 2337-2341.	0.8	8
61	Excess currents in planar Ba(FeCo)As/TiO/Pb Josephson junctions. Physica Status Solidi (B): Basic Research, 2015, 252, 2858-2866.	0.7	8
62	Hybrid Josephson Junctions with Iron-based and Conventional Superconductor Electrodes. Journal of Superconductivity and Novel Magnetism, 2015, 28, 1117-1121.	0.8	8
63	Microscopic origin of highly enhanced current carrying capabilities of thin NdFeAs(O,F) films. Nanoscale Advances, 2019, 1, 3036-3048.	2.2	8
64	Challenges and Perspectives of the Phase Formation of Internally Oxidized PIT-Type Nb₃Sn Conductors. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-5.	1.1	8
65	Microstructure, pinning properties, and aging of CSD-grown SmBa₂Cu₃O_{7âˆ’Î´} films with and without BaHfO₃ nanoparticles. Superconductor Science and Technology, 2022, 35, 084009.	1.8	8
66	Critical current in YNi2B2C and HoNi2B2C thin films. Physica C: Superconductivity and Its Applications, 2003, 388-389, 191-192.	0.6	7
67	Unravelling the Crystallization Process in Solution-Derived YBa₂Cu₃O_{7-Î´} Nanocomposite Films with Preformed ZrO₂ Nanocrystals via Definitive Screening Design. Journal of Physical Chemistry Letters, 2021, 12, 2118-2125.	2.1	7
68	YBCO coated conductors prepared by chemical solution deposition: A TEM study. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1407-1408.	0.6	6
69	Conflicting Effects of SiC Doping on the Properties of Mechanically Alloyed Bulk ${m MgB}_{2}$. IEEE Transactions on Applied Superconductivity, 2009, 19, 2726-2729.	1.1	6
70	CSD-Grown Y1âˆ’xGdxBa2Cu3O7âˆ’Î´-BaHfO3 Nanocomposite Films on Ni5W and IBAD Technical Substrates. Nanomaterials, 2020, 10, 21.	1.9	6
71	High-$J_{m c}$ YBCO Coated Conductors Based on IBAD-TiN Using Stainless Steel Substrates. IEEE Transactions on Applied Superconductivity, 2011, 21, 2920-2923.	1.1	5
72	Josephson and Tunneling Junctions with Thin Films of Iron based Superconductors. Physics Procedia, 2012, 36, 82-87.	1.2	5

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73	Pinning Centers in ISD-MgO Coated Conductors via EB-PVD. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	5
74	RE BCO mixtures with large difference in rare-earth ion size: superconducting properties of chemical solution deposition-grown Yb _{1â" x} Sm _x Ba ₂ Cu ₃ O _{7â"} _{Î´} films. Royal Society Open Science, 2020, 7, 201257.	1.1	5
75	Relative angular precision in electron backscatter diffraction: A comparison between cross correlation and Hough transform based analysis. Crystal Research and Technology, 2014, 49, 435-439.	0.6	4
76	Isotropic behavior of critical current for MgB2 ex situ tapes with 5 wt.% carbon addition. Physica C: Superconductivity and Its Applications, 2012, 483, 222-224.	0.6	3
77	Strain inhomogeneities in epitaxial BaFe₂As₂ thin films. Crystal Research and Technology, 2015, 50, 891-902.	0.6	3
78	Superconducting BaHfO₃â€"GdBa₂Cu₃O₇ Nanocomposite Thin Films: Influence of Growth Temperature and Deposition Rate on Transport Properties. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	3
79	Importance of the pyrolysis for microstructure and superconducting properties of CSD-grown GdBa2Cu3O7â"x-HfO2 nanocomposite films by the ex-situ approach. Scientific Reports, 2020, 10, 19469.	1.6	3
80	Improved Performance of CSD-Grown Y1- x Gd x Ba2Cu3O7-BaHfO3 Nanocomposite Films on Ni5W Substrates. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-4.	1.1	3
81	Development of Texture and Microstructure in MgO Buffer Layers Using Ion-Beam Assisted Pulsed Laser Deposition. , 2001, , 239-249.		3
82	Pinning analyses of a BaHfO₃-containing GdBa₂Cu₃O_{7â€Î´} thin film grown by chemical solution deposition. Superconductor Science and Technology, 2021, 34, 015009.	1.8	3
83	Determination of the Oxygen Chain Ordering in REBa₂Cu₃O_{7â€"Î´} by Electrical Conductivity Relaxation Measurements. ACS Applied Electronic Materials, 2021, 3, 5374-5382.	2.0	3
84	Superconductors. , 2005, , 695-754.		2
85	Improved Critical Current Densities of Coated Conductors by High Aspect Ratio Grains. IEEE Transactions on Applied Superconductivity, 2007, 17, 3239-3242.	1.1	2
86	MgB2 bulk and tapes prepared by mechanical alloying: Influence of the boron precursor. Physica C: Superconductivity and Its Applications, 2007, 460-462, 593-594.	0.6	2
87	Penetration and de-pinning of vortices in sub-micrometer Ba(Fe,Co)2As2 thin film bridges. Physica C: Superconductivity and Its Applications, 2012, 479, 164-166.	0.6	2
88	Novel method to study strain effect of thin films using a piezoelectric-based device and a flexible metallic substrate. Applied Physics Express, 2019, 12, 016503.	1.1	2
89	Superconducting Films. , 2013, , 673-705.		2
90	Biaxially aligned YSZ buffer layers for YBCO tapes on technical substrates with Ion-Beam Assisted Pulsed Laser Deposition andin situ RHEED texture analysis. European Physical Journal D, 1996, 46, 1515-1516.	0.4	1

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91	CRYSTALLIZATION AND MAGNETO-TRANSPORT CHARACTERISTICS IN MOD YBa2Cu3O7-Î´ FILMS. International Journal of Modern Physics B, 2009, 23, 3470-3475.	1.0	1
92	On the growth of Co-doped BaFe₂As₂thin films on CaF₂. Journal of Physics: Conference Series, 2019, 1293, 012014.	0.3	1
93	Ion-beam assisted pulsed laser deposition of textured transition-metal nitride films. Materials Research Society Symposia Proceedings, 2008, 1150, 1.	0.1	0
94	Development of conducting buffer architectures using cube textured IBAD-TiN layers. Materials Research Society Symposia Proceedings, 2008, 1150, 1.	0.1	0
95	EUCAS '09: The 9th European Conference on Applied Superconductivity (Dresden, Germany, 13â€“17) Tj ETQq1 1 0.784314 rgBT /Ov	1.8	0
96	Comparative studies of single-crystalline-like Ge thin film on inexpensive flexible metal substrates. , 2014, , .		0
97	Pulsed Laser Deposition of quasi-multilayer superconducting Ba(Fe0.92Co0.08)2As2-BaHfO3 nanocomposite films. Journal of Physics: Conference Series, 2020, 1559, 012052.	0.3	0
98	Structural and chemical properties of superconducting rare-earth barium copper oxide/BaHfO3 nanocomposites with rare-earth mixtures. Microscopy and Microanalysis, 2021, 27, 2876-2879.	0.2	0
99	Analysis of superconducting thin films in a modern FIB/SEM dual-beam instrument. Microscopy and Microanalysis, 2021, 27, 1056-1058.	0.2	0
100	Superconductors. Springer Handbooks, 2018, , 705-756.	0.3	0
101	Effect of oxygenation process on flux pinning in pristine and BaHfO₃ nanocomposite GdBa₂Cu₃O₇ superconducting thin films. Journal of Physics: Conference Series, 2020, 1559, 012038.	0.3	0
102	Application of electron backscatter diffraction in the SEM to textural problems of coated high-temperature superconductors. International Journal of Materials Research, 2022, 94, 580-586.	0.1	0