

# Bernhard Holzapfel

## List of Publications by Year in descending order

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102  
papers

1,899  
citations

257101

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104  
docs citations

104  
times ranked

1436  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Microstructure, pinning properties, and aging of CSD-grown $\text{SmBa}_2\text{Cu}_3\text{O}_{7-x}\text{F}$ films with and without $\text{BaHfO}_3$ nanoparticles. Superconductor Science and Technology, 2022, 35, 084009.	1.8	8
3	Unravelling the Crystallization Process in Solution-Derived $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Nanocomposite Films with Preformed $\text{ZrO}_2$ Nanocrystals via Definitive Screening Design. Journal of Physical Chemistry Letters, 2021, 12, 2118-2125.	2.1	7
4	Structural and chemical properties of superconducting rare-earth barium copper oxide/ $\text{BaHfO}_3$ nanocomposites with rare-earth mixtures. Microscopy and Microanalysis, 2021, 27, 2876-2879.	0.2	0
5	Analysis of superconducting thin films in a modern FIB/SEM dual-beam instrument. Microscopy and Microanalysis, 2021, 27, 1056-1058.	0.2	0
6	Pinning analyses of a $\text{BaHfO}_3$ -containing $\text{GdBa}_2\text{Cu}_3\text{O}_{7-x}\text{F}$ thin film grown by chemical solution deposition. Superconductor Science and Technology, 2021, 34, 015009.	1.8	3
7	Determination of the Oxygen Chain Ordering in $\text{REBa}_2\text{Cu}_3\text{O}_{7-x}\text{F}$ by Electrical Conductivity Relaxation Measurements. ACS Applied Electronic Materials, 2021, 3, 5374-5382.	2.0	3
8	Importance of the pyrolysis for microstructure and superconducting properties of CSD-grown $\text{GdBa}_2\text{Cu}_3\text{O}_{7-x}\text{HfO}_2$ nanocomposite films by the ex-situ approach. Scientific Reports, 2020, 10, 19469.	1.6	3
9	Pulsed Laser Deposition of quasi-multilayer superconducting $\text{Ba}(\text{Fe}_{0.92}\text{Co}_{0.08})_2\text{As}_2\text{-BaHfO}_3$ nanocomposite films. Journal of Physics: Conference Series, 2020, 1559, 012052.	0.3	0
10	Improved Performance of CSD-Grown $\text{Y}_{1-x}\text{Gd}_x\text{Ba}_2\text{Cu}_3\text{O}_7\text{-BaHfO}_3$ Nanocomposite Films on Ni5W Substrates. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-4.	1.1	3
11	Challenges and Perspectives of the Phase Formation of Internally Oxidized PIT-Type $\text{Nb}_3\text{Sn}$ Conductors. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-5.	1.1	8
12	Superconducting $\text{HfO}_2\text{-YBa}_2\text{Cu}_3\text{O}_{7-x}\text{F}$ Nanocomposite Films Deposited Using Ink-Jet Printing of Colloidal Solutions. Coatings, 2020, 10, 17.	1.2	24
13	Rapid Pyrolysis of $\text{SmBa}_2\text{Cu}_3\text{O}_{7-x}\text{F}$ Films in CSD-MOD Using Extremely-Low-Fluorine Solutions. Coatings, 2020, 10, 31.	1.2	9
14	CSD-Grown $\text{Y}_{1-x}\text{Gd}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-x}\text{F-BaHfO}_3$ Nanocomposite Films on Ni5W and IBAD Technical Substrates. Nanomaterials, 2020, 10, 21.	1.9	6
15	First operation of the KATRIN experiment with tritium. European Physical Journal C, 2020, 80, 1.	1.4	26
16	Anisotropy of flux pinning properties in superconducting $(\text{Li,Fe})\text{OHFeSe}$ thin films. Superconductor Science and Technology, 2020, 33, 114009.	1.8	10
17	BCO mixtures with large difference in rare-earth ion size: superconducting properties of chemical solution deposition-grown $\text{Yb}_{1-x}\text{Sm}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-x}\text{F}$ films. Royal Society Open Science, 2020, 7, 201257.	1.1	5
18	Effect of oxygenation process on flux pinning in pristine and $\text{BaHfO}_3$ nanocomposite $\text{GdBa}_2\text{Cu}_3\text{O}_{7-x}\text{F}$ superconducting thin films. Journal of Physics: Conference Series, 2020, 1559, 012038.	0.3	0

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19	On the growth of Co-doped BaFe <sub>2</sub> As <sub>2</sub> thin films on CaF <sub>2</sub> . Journal of Physics: Conference Series, 2019, 1293, 012014.	0.3	1
20	Microscopic origin of highly enhanced current carrying capabilities of thin NdFeAs(O,F) films. Nanoscale Advances, 2019, 1, 3036-3048.	2.2	8
21	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
22	Superconducting BaHfO <sub>3</sub> â€“GdBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> 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
23	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
24	Observation of zero resistance in as-electrodeposited FeSe. Solid State Communications, 2018, 270, 72-75.	0.9	12
25	Chemical solution deposition of Y <sub>1-x</sub> Gd <sub>x</sub> Ba <sub>2</sub> Cu <sub>3</sub> O <sub>7-Î´</sub> â€“BaHfO <sub>3</sub> 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
26	The Aerosol Deposition Method: A Modified Aerosol Generation Unit to Improve Coating Quality. Materials, 2018, 11, 1572.	1.3	25
27	Superconductors. Springer Handbooks, 2018, , 705-756.	0.3	0
28	Tailoring Microstructure and Superconducting Properties in Thick BaHfO <sub>3</sub> and Ba <sub>2</sub> Y(Nb/Ta)O <sub>6</sub> Doped YBCO Films on Technical Templates. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-7.	1.1	12
29	Large critical current densities and pinning forces in CSD-grown superconducting GdBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-Î´</sub> -BaHfO <sub>3</sub> nanocomposite films. Superconductor Science and Technology, 2017, 30, 094007.	1.8	30
30	High-field transport properties of a P-doped BaFe <sub>2</sub> As <sub>2</sub> film on technical substrate. Scientific Reports, 2017, 7, 39951.	1.6	38
31	Reduced $\rho_{c2}$ Anisotropy and Enhanced In-Field Performance of Thick BaHfO <sub>3</sub> -Doped $\text{Ba}_{2}\text{Y}(\text{Nb/Ta})\text{O}_{6}$ Films on ABAD-YSZ Templates. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.1	13
32	Large pinning forces and matching effects in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-Î´</sub> thin films with Ba <sub>2</sub> Y(Nb/Ta)O <sub>6</sub> nano-precipitates. Scientific Reports, 2016, 6, 21188.	1.6	73
33	Hall-plot of the phase diagram for Ba(Fe <sub>1-x</sub> Cox) <sub>2</sub> As <sub>2</sub> . Scientific Reports, 2016, 6, 28390.	1.6	30
34	Ba <sub>2</sub> Y(Nb/Ta)O <sub>6</sub> â€“Doped YBCO Films on Biaxially Textured Niâ€“5at.% W Substrates. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	9
35	Electrochemical Deposition of FeSe on RABiTS Tapes. Journal of the Physical Society of Japan, 2016, 85, 015001.	0.7	17
36	Pinning Centers in ISD-MgO Coated Conductors via EB-PVD. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	5

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37	High field superconducting properties of $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ thin films. Scientific Reports, 2015, 5, 17363.	1.6	49
38	Strain inhomogeneities in epitaxial $\text{BaFe}_2\text{As}_2$ thin films. Crystal Research and Technology, 2015, 50, 891-902.	0.6	3
39	Excess currents in planar $\text{Ba}(\text{FeCo})\text{As}/\text{TiO}/\text{Pb}$ Josephson junctions. Physica Status Solidi (B): Basic Research, 2015, 252, 2858-2866.	0.7	8
40	Thick High $\text{J}_c$ YBCO Films on ABAD-YSZ Templates. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.1	13
41	$\text{BaHfO}_3$ -Doped Thick $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Films on Highly Alloyed Textured Ni-W Tapes. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.1	24
42	Atomic and electronic structures of $\text{BaHfO}_3$ -doped TFA-MOD-derived $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ thin films. Superconductor Science and Technology, 2015, 28, 115009.	1.8	10
43	Investigation of the Electrical Field Sensitivity of $\text{Sub-}\frac{1}{4}\text{m YBaCuO}$ Detectors. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-6.	1.1	10
44	Hybrid Josephson Junctions with Iron-based and Conventional Superconductor Electrodes. Journal of Superconductivity and Novel Magnetism, 2015, 28, 1117-1121.	0.8	8
45	Induced lattice strain in epitaxial Fe-based superconducting films on $\text{CaF}_2$ substrates: A comparative study of the microstructures of $\text{SmFeAs}(\text{O},\text{F})$ , $\text{Ba}(\text{Fe},\text{Co})_2\text{As}_2$ , and $\text{FeTe}_{0.5}\text{Se}_{0.5}$ . Applied Physics Letters, 2014, 104, .	1.5	22
46	Highly textured oxypnictide superconducting thin films on metal substrates. Applied Physics Letters, 2014, 105, .	1.5	25
47	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
48	Comparative studies of single-crystalline-like Ge thin film on inexpensive flexible metal substrates. , 2014, , .		0
49	Large grained single-crystalline-like germanium thin film on flexible Ni-W tape. RSC Advances, 2014, 4, 21042-21048.	1.7	17
50	Improved $\text{REBa}_2\text{Cu}_3\text{O}_{7-x}$ (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
51	Highly alloyed Ni-W substrates for low AC loss applications. Superconductor Science and Technology, 2013, 26, 085024.	1.8	38
52	Highly Responsive $\text{YBaCuO}$ Thin Film THz Detectors With Picosecond Time Resolution. IEEE Transactions on Applied Superconductivity, 2013, 23, 2400206-2400206.	1.1	12
53	Interlayer structure in YBCO-coated conductors prepared by chemical solution deposition. Superconductor Science and Technology, 2013, 26, 075016.	1.8	10
54	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

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55	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
56	Intrinsic pinning and the critical current scaling of clean epitaxial Fe(Se,Te) thin films. Physical Review B, 2013, 87, .	1.1	51
57	Oxypnictide SmFeAs(O,F) superconductor: a candidate for highâ€“field magnet applications. Scientific Reports, 2013, 3, 2139.	1.6	42
58	Superconducting Films. , 2013, , 673-705.		2
59	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
60	Ink-jet printing of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> superconducting coatings and patterns from aqueous solutions. Journal of Materials Chemistry, 2012, 22, 3717-3726.	6.7	58
61	Josephson and Tunneling Junctions with Thin Films of Iron based Superconductors. Physics Procedia, 2012, 36, 82-87.	1.2	5
62	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
63	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
64	$J_c$ Scaling and Anisotropies in Co-Doped Ba-122 Thin Films. IEEE Transactions on Applied Superconductivity, 2011, 21, 2887-2890.	1.1	22
65	Generic Fe buffer layers for Fe-based superconductors: Epitaxial FeSe1â€“ $x$ Te $x$ thin films. Applied Physics Letters, 2011, 99, .	1.5	44
66	High- $J_c$ YBCO Coated Conductors Based on IBAD-TiN Using Stainless Steel Substrates. IEEE Transactions on Applied Superconductivity, 2011, 21, 2920-2923.	1.1	5
67	Epitaxial Growth of Superconducting Ba(Fe<sub>1- $xx$ </sub>)<sub>2</sub>As<sub>2</sub> Thin Films on Technical Ion Beam Assisted Deposition MgO Substrates. Applied Physics Express, 2011, 4, 013103.	1.1	79
68	As vacancies, local moments, and Pauli limiting in LaFeAs<math>\langle \mathbf{m} \rangle</math> $\langle \mathbf{m} \rangle = \langle m_x \rangle \mathbf{i} + \langle m_y \rangle \mathbf{j} + \langle m_z \rangle \mathbf{k}$ $\langle m_x \rangle = 0.9, \langle m_y \rangle = 0.1, \langle m_z \rangle = 0$	1.1	21
69	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
70	Paramagnetic substrates for thin film superconductors: Niâ€“W and Niâ€“Wâ€“Cr. Scripta Materialia, 2010, 62, 512-515.	2.6	22
71	Comparing properties of substrate-constrained and freestanding epitaxial Niâ€“Mnâ€“Ga films. Acta Materialia, 2010, 58, 3415-3421.	3.8	73
72	EUCAS '09: The 9th European Conference on Applied Superconductivity (Dresden, Germany, 13â€“17) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.8	0

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73	Finite-size effects in highly ordered ultrathin FePt films. <i>Physical Review B</i> , 2010, 82, .	1.1	21
74	Simplified Procedure for Estimating Epitaxy of $\text{La}_{2-x}\text{Zr}_x\text{O}_7$ -Buffered NiW RABITS Using XRD. <i>IEEE Transactions on Applied Superconductivity</i> , 2009, 19, 3307-3310.	1.1	11
75	CRYSTALLIZATION AND MAGNETO-TRANSPORT CHARACTERISTICS IN MOD YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\hat{\delta}</math></sub> FILMS. <i>International Journal of Modern Physics B</i> , 2009, 23, 3470-3475.	1.0	1
76	Conflicting Effects of SiC Doping on the Properties of Mechanically Alloyed Bulk $\text{MgB}_2$ . <i>IEEE Transactions on Applied Superconductivity</i> , 2009, 19, 2726-2729.	1.1	6
77	Preparation of Conductive Buffer Architectures Based on IBAD-TiN. <i>IEEE Transactions on Applied Superconductivity</i> , 2009, 19, 3447-3450.	1.1	12
78	Ion-beam assisted pulsed laser deposition of textured transition-metal nitride films. <i>Materials Research Society Symposia Proceedings</i> , 2008, 1150, 1.	0.1	0
79	Angular-dependent vortex pinning mechanism in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\hat{\delta}</math></sub> /YSZ quasi-multilayer. <i>Journal of Applied Physics</i> , 2008, 104, 033920.	1.1	13
80	Development of conducting buffer architectures using cube textured IBAD-TiN layers. <i>Materials Research Society Symposia Proceedings</i> , 2008, 1150, 1.	0.1	0
81	Touching the properties of NbTi by carbon doped tapes with mechanically alloyed MgB <sub>2</sub> . <i>Applied Physics Letters</i> , 2007, 91, .	1.5	77
82	Improved Critical Current Densities of Coated Conductors by High Aspect Ratio Grains. <i>IEEE Transactions on Applied Superconductivity</i> , 2007, 17, 3239-3242.	1.1	2
83	Improved Pinning in YBCO Based Quasi-Multilayers Prepared by On- and Off-Axis Pulsed Laser Deposition. <i>IEEE Transactions on Applied Superconductivity</i> , 2007, 17, 3733-3736.	1.1	16
84	MgB <sub>2</sub> bulk and tapes prepared by mechanical alloying: Influence of the boron precursor. <i>Physica C: Superconductivity and Its Applications</i> , 2007, 460-462, 593-594.	0.6	2
85	YBCO coated conductors prepared by chemical solution deposition: A TEM study. <i>Physica C: Superconductivity and Its Applications</i> , 2007, 460-462, 1407-1408.	0.6	6
86	Rolling and recrystallisation textures in Cu-Al, Cu-Mn and Cu-Ni alloys. <i>Journal of Materials Science</i> , 2007, 42, 7586-7591.	1.7	27
87	XPS depth profiling investigations on La <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> layers prepared by chemical solution deposition. <i>Mikrochimica Acta</i> , 2006, 156, 121-124.	2.5	8
88	La <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> and Ce-Gd-O buffer layers for YBCO coated conductors using chemical solution deposition. <i>Physica C: Superconductivity and Its Applications</i> , 2005, 426-431, 979-984.	0.6	34
89	Effects of oxide particle addition on superconductivity in nanocrystalline MgB <sub>2</sub> bulk samples. <i>Physica C: Superconductivity and Its Applications</i> , 2005, 432, 15-24.	0.6	21
90	Effect of silver on cube texture formation in nickel substrate tapes. <i>Superconductor Science and Technology</i> , 2005, 18, 770-775.	1.8	8

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91	Superconductors. , 2005, , 695-754.		2
92	Highly textured La <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> buffer layers for YBCO-coated conductors prepared by chemical solution deposition. Superconductor Science and Technology, 2005, 18, 334-339.	1.8	57
93	Critical current in YNi <sub>2</sub> B <sub>2</sub> C and HoNi <sub>2</sub> B <sub>2</sub> C thin films. Physica C: Superconductivity and Its Applications, 2003, 388-389, 191-192.	0.6	7
94	Intrinsic and extrinsic properties of epitaxial Nd <sub>2</sub> Fe <sub>14</sub> B films. Applied Physics Letters, 2003, 82, 3710-3712.	1.5	39
95	Chemical solution deposition of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> films by dip coating. Physica C: Superconductivity and Its Applications, 2002, 372-376, 46-49.	0.6	30
96	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
97	Nickel-refractory metal substrate tapes with high cube texture stability. Superconductor Science and Technology, 2001, 14, 152-159.	1.8	136
98	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
99	Development of Texture and Microstructure in MgO Buffer Layers Using Ion-Beam Assisted Pulsed Laser Deposition. , 2001, , 239-249.		3
100	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
101	Biaxially aligned YSZ buffer layers for YBCO tapes on technical substrates with Ion-Beam Assisted Pulsed Laser Deposition and in situ RHEED texture analysis. European Physical Journal D, 1996, 46, 1515-1516.	0.4	1
102	Optimization of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> submicrometer structure fabrication. Applied Physics Letters, 1993, 63, 1149-1151.	1.5	28