

David C Larbalestier

List of Publications by Year in descending order

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479
papers

22,597
citations

10389

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128
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489
all docs

489
docs citations

489
times ranked

5769
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Tc superconducting materials for electric power applications. Nature, 2001, 414, 368-377.	27.8	1,130
2	Strongly linked current flow in polycrystalline forms of the superconductor MgB2. Nature, 2001, 410, 186-189.	27.8	883
3	Oxygen-defect flux pinning, anomalous magnetization and intra-grain granularity in YBa2Cu3O7- δ . Nature, 1990, 346, 332-335.	27.8	762
4	High-T _c superconducting materials for electric power applications. , 2010, , 311-320.		644
5	Two-band superconductivity in LaFeAsO0.89F0.11 at very high magnetic fields. Nature, 2008, 453, 903-905.	27.8	490
6	High critical current density and enhanced irreversibility field in superconducting MgB2 thin films. Nature, 2001, 411, 558-560.	27.8	477
7	45.5-tesla direct-current magnetic field generated with a high-temperature superconducting magnet. Nature, 2019, 570, 496-499.	27.8	432
8	Small anisotropy, weak thermal fluctuations, and high field superconductivity in Co-doped iron pnictide Ba(Fe1-xCox)2As2. Applied Physics Letters, 2009, 94, .	3.3	337
9	Critical state in disk-shaped superconductors. Physical Review B, 1989, 40, 9350-9353.	3.2	320
10	Upper critical fields and thermally-activated transport of $\frac{H_{c2}}{H_{c1}} > 0.7$ crystal. Physical Review B, 2008, 78, .	3.2	303
11	Isotropic round-wire multifilament cuprate superconductor for generation of magnetic fields above 30 T. Nature Materials, 2014, 13, 375-381.	27.5	296
12	Very high upper critical fields in MgB2 produced by selective tuning of impurity scattering. Superconductor Science and Technology, 2004, 17, 278-286.	3.5	281
13	New Fe-based superconductors: properties relevant for applications. Superconductor Science and Technology, 2010, 23, 034003.	3.5	253
14	Weak-link-free behaviour of high-angle YBa2Cu3O7- δ grain boundaries in high magnetic fields. Nature, 1990, 347, 167-169.	27.8	230
15	High-field superconductivity in alloyed MgB2 thin films. Physical Review B, 2005, 71, .	3.2	228
16	High intergrain critical current density in fine-grain (Ba0.6K0.4)Fe2As2 wires and bulks. Nature Materials, 2012, 11, 682-685.	27.5	220
17	High critical current density and improved irreversibility field in bulk MgB2 made by a scaleable, nanoparticle addition route. Applied Physics Letters, 2002, 81, 2026-2028.	3.3	204
18	The competition between martensite and omega in quenched Ti-Nb alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1988, 19, 1677-1686.	1.4	197

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19	Template engineering of Co-doped BaFe ₂ As ₂ single-crystal thin films. <i>Nature Materials</i> , 2010, 9, 397-402.	27.5	185
20	Position-sensitive measurements of the local critical current density in Ag sheathed high-temperature superconductor (Bi, Pb) ₂ Sr ₂ Ca ₂ Cu ₃ O _y tapes. <i>Physica C: Superconductivity and Its Applications</i> , 1994, 221, 299-303.	1.2	179
21	High Field Magnets With HTS Conductors. <i>IEEE Transactions on Applied Superconductivity</i> , 2010, 20, 576-582.	1.7	175
22	Superconducting materials for large scale applications. <i>Proceedings of the IEEE</i> , 2004, 92, 1639-1654.	21.3	174
23	Design of a Superconducting 32 T Magnet With REBCO High Field Coils. <i>IEEE Transactions on Applied Superconductivity</i> , 2012, 22, 4300704-4300704.	1.7	173
24	A general scaling relation for the critical current density in Nb ₃ Sn. <i>Superconductor Science and Technology</i> , 2006, 19, R100-R116.	3.5	170
25	Recent Developments in 2G HTS Coil Technology. <i>IEEE Transactions on Applied Superconductivity</i> , 2009, 19, 2218-2222.	1.7	165
26	Improved upper critical field in bulk-form magnesium diboride by mechanical alloying with carbon. <i>Applied Physics Letters</i> , 2005, 86, 202502.	3.3	164
27	Weak-link behavior of grain boundaries in superconducting Ba(Fe _{1-x} Cox) ₂ As ₂ bicrystals. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	163
28	Progress in Nanoengineered Microstructures for Tunable High-Current, High-Temperature Superconducting Wires. <i>Advanced Materials</i> , 2008, 20, 391-407.	21.0	162
29	Electronic anisotropy, magnetic field-temperature phase diagram and their dependence on resistivity in-axis oriented MgB ₂ thin films. <i>Superconductor Science and Technology</i> , 2001, 14, 315-319.	3.5	157
30	Influence of boron powder purification on the connectivity of bulk MgB ₂ . <i>Superconductor Science and Technology</i> , 2006, 19, L33-L36.	3.5	151
31	35.4%T field generated using a layer-wound superconducting coil made of (RE)Ba ₂ Cu ₃ O _{7-x} (RE = rare) T _j ETO _g 1 0.784314 rgB	3.3	150
32	Critical current distributions in superconducting composites. <i>Cryogenics</i> , 1986, 26, 643-653.	1.7	148
33	Quantitative description of a very high critical current density Nb-Ti superconductor during its final optimization strain. II. Flux pinning mechanisms. <i>Journal of Applied Physics</i> , 1989, 66, 5971-5983.	2.5	147
34	Magnetic granularity, percolation and preferential current flow in a silver-sheathed Bi _{1.8} Pb _{0.4} Sr ₂ Ca ₂ Cu ₃ O _{8+x} tape. <i>Physica C: Superconductivity and Its Applications</i> , 1995, 246, 133-144.	1.2	136
35	Significant enhancement of upper critical fields by doping and strain in iron-based superconductors. <i>Physical Review B</i> , 2011, 84, .	3.2	135
36	Evaluation of connectivity, flux pinning, and upper critical field contributions to the critical current density of bulk pure and SiC-alloyed MgB ₂ . <i>Applied Physics Letters</i> , 2006, 89, 132508.	3.3	134

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37	Magneto-optical study of flux penetration and critical current densities in [001] tilt $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ thin-film bicrystals. <i>Physical Review B</i> , 1996, 53, 8687-8697.	3.2	127
38	The behavior of grain boundaries in the Fe-based superconductors. <i>Reports on Progress in Physics</i> , 2011, 74, 124511.	20.1	127
39	Progress in the Development of a Superconducting 32 T Magnet With REBCO High Field Coils. <i>IEEE Transactions on Applied Superconductivity</i> , 2014, 24, 1-5.	1.7	126
40	Nanoscale-SiC doping for enhancing J_c and H_{c2} in superconducting MgB_2 . <i>Journal of Applied Physics</i> , 2004, 96, 7549-7555.	2.5	125
41	Comparative high-field magnetotransport of the oxypnictide superconductors $\text{RFeAsO}_{1-x}\text{F}_x$ ($\text{R}=\text{La}, \text{Nd}$) and $\text{SmFeAsO}_{1-x}\text{F}_x$. <i>Physical Review B</i> , 2008, 78, .	3.2	121
42	Strongly enhanced vortex pinning from 4 to 77 K in magnetic fields up to 31 T in 15 mol.% Zr-added (Gd,) $\text{TjETQq0,0,0 rgBT /Overlock 1$	5.1	121
43	Evidence for two distinct scales of current flow in polycrystalline Sm and Nd iron oxypnictides. <i>Superconductor Science and Technology</i> , 2008, 21, 095008.	3.5	118
44	Flux pinning by ordered oxygen-deficient phases in nearly stoichiometric $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ single crystals. <i>Applied Physics Letters</i> , 1992, 60, 1741-1743.	3.3	113
45	Influence of nickel substrate grain structure on $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ supercurrent connectivity in deformation-textured coated conductors. <i>Applied Physics Letters</i> , 2000, 77, 2906-2908.	3.3	112
46	Quantitative description of a high J_c Nb_3Sn superconductor during its final optimization strain. I. Microstructure, T_c , H_{c2} , and resistivity. <i>Journal of Applied Physics</i> , 1989, 66, 5962-5970.	2.5	106
47	Flux Flow of Abrikosov-Josephson Vortices along Grain Boundaries in High-Temperature Superconductors. <i>Physical Review Letters</i> , 2002, 88, 097001.	7.8	105
48	Evidence for channel conduction in low misorientation angle [001] tilt $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ bicrystal films. <i>Applied Physics Letters</i> , 1996, 69, 577-579.	3.3	103
49	The competition between the alpha and omega phases in aged Ti-Nb alloys. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1988, 19, 1687-1694.	1.4	101
50	Direct evidence for residual, preferentially-oriented cracks in rolled and pressed Ag-clad BSCCO-2223 tapes and their effect on the critical current density. <i>Superconductor Science and Technology</i> , 1996, 9, 393-398.	3.5	97
51	Properties of recent IBAD/MOCVD coated conductors relevant to their high field, low temperature magnet use. <i>Superconductor Science and Technology</i> , 2011, 24, 035001.	3.5	97
52	Effect of geometry on the critical currents of thin films. <i>Physical Review B</i> , 1994, 49, 1274-1288.	3.2	94
53	Experiments concerning the connective nature of superconductivity in $\text{YBa}_2\text{Cu}_3\text{O}_7$. <i>Journal of Applied Physics</i> , 1987, 62, 3308-3313.	2.5	93
54	The influence of Nb_3Sn strand geometry on filament breakage under bend strain as revealed by metallography. <i>Superconductor Science and Technology</i> , 2003, 16, 1005-1011.	3.5	93

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55	Strong to weak coupling transition in low misorientation angle thin film $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ bicrystals. <i>Physical Review B</i> , 1999, 60, 1409-1417.	3.2	92
56	The upper critical field of filamentary Nb_3Sn conductors. <i>Journal of Applied Physics</i> , 2005, 97, 093909.	2.5	91
57	Microstructural analysis of high critical current density Ag-clad $\text{Bi}-\text{Sr}-\text{Ca}-\text{Cu}-\text{O}$ (2:2:1:2) tapes. <i>Physica C: Superconductivity and Its Applications</i> , 1992, 192, 293-305.	1.2	90
58	Current-limiting mechanisms in individual filaments extracted from superconducting tapes. <i>Nature</i> , 1998, 392, 906-909.	27.8	89
59	A Round Table Discussion on MgB_2 Toward a Wide Market or a Niche Production? A Summary. <i>IEEE Transactions on Applied Superconductivity</i> , 2006, 16, 1457-1464.	1.7	88
60	Further evidence that the critical current density of $(\text{Bi}, \text{Pb})_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_x$ silver-sheathed tapes is controlled by residual layers of $(\text{Bi}, \text{Pb})_2\text{Sr}_2\text{CaCu}_2\text{O}_y$ at (001) twist boundaries. <i>Physica C: Superconductivity and Its Applications</i> , 1994, 219, 378-388.	1.2	85
61	Reconstruction of Current Flow and Imaging of Current-Limiting Defects in Polycrystalline Superconducting Films. <i>Science</i> , 1997, 275, 367-369.	12.6	85
62	Synthesis and properties of c-axis oriented epitaxial MgB_2 thin films. <i>Applied Physics Letters</i> , 2002, 81, 1851-1853.	3.3	85
63	Development of nanometer scale structures in composites of $\text{Nb}-\text{Ti}$ and their effect on the superconducting critical current density. <i>Acta Metallurgica</i> , 1987, 35, 2523-2536.	2.1	83
64	Evidence for local composition variations within $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ grain boundaries. <i>Applied Physics Letters</i> , 1989, 55, 393-395.	3.3	83
65	Evidence for preferential formation of the $(\text{Bi}, \text{Pb})_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_x$ phase at the Ag interface in Ag-sheathed $(\text{Bi}, \text{Pb})_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_x$ tapes. <i>Applied Physics Letters</i> , 1993, 62, 1553-1555.	3.3	83
66	Progress in Performance Improvement and New Research Areas for Cost Reduction of 2G HTS Wires. <i>IEEE Transactions on Applied Superconductivity</i> , 2011, 21, 3049-3054.	1.7	83
67	Bubble formation within filaments of melt-processed $\text{Bi}2212$ wires and its strongly negative effect on the critical current density. <i>Superconductor Science and Technology</i> , 2011, 24, 075009.	3.5	82
68	A study of the competitive reactions occurring during the heat treatment of silver-sheathed $\text{Bi}_{1.8}\text{Pb}_{0.4}\text{Sr}_{2.0}\text{Ca}_{2.2}\text{Cu}_{3.0}\text{O}_y$ aerosol spray pyrolysis powder. <i>Physica C: Superconductivity and Its Applications</i> , 1994, 220, 81-92.	1.2	80
69	Electromagnetic, atomic structure and chemistry changes induced by Ca-doping of low-angle $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ grain boundaries. <i>Nature Materials</i> , 2005, 4, 470-475.	27.5	79
70	Angular dependence of J_c for YBCO coated conductors at low temperature and very high magnetic fields. <i>Superconductor Science and Technology</i> , 2010, 23, 014003.	3.5	76
71	Electromagnetic granularity, critical current density, and low- T_c phase formation at the grain boundaries in $(\text{Bi}, \text{Pb})_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_x$ silver-sheathed tapes. <i>Physica C: Superconductivity and Its Applications</i> , 1992, 198, 261-272.	1.2	75
72	Comparison of growth texture in round $\text{Bi}2212$ and flat $\text{Bi}2223$ wires and its relation to high critical current density development. <i>Scientific Reports</i> , 2015, 5, 8285.	3.3	74

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73	Electrical transport across grain boundaries in bicrystals of YBa ₂ Cu ₃ O ₇ ∓. Physica C: Superconductivity and Its Applications, 1991, 185-189, 315-320.	1.2	73
74	Microstructural factors important for the development of high critical current density Nb ₃ Sn strand. Cryogenics, 2008, 48, 283-292.	1.7	73
75	Nanoscale grains, high irreversibility field and large critical current density as a function of high-energy ball milling time in C-doped magnesium diboride. Superconductor Science and Technology, 2008, 21, 035009.	3.5	73
76	Intergrain current flow in a randomly oriented polycrystalline SmFeAsO _{0.85} oxypnictide. Applied Physics Letters, 2009, 95, .	3.3	73
77	Observations and implications of grain boundary dislocation networks in high-angle YBa ₂ Cu ₃ O ₇ ∓ grain boundaries. Journal of Materials Research, 1990, 5, 919-928.	2.6	71
78	Improved strong magnetic field performance of low angle grain boundaries of calcium and oxygen overdoped YBa ₂ Cu ₃ O _x . Applied Physics Letters, 2000, 77, 3251-3253.	3.3	71
79	Doubled critical current density in Bi-2212 round wires by reduction of the residual bubble density. Superconductor Science and Technology, 2011, 24, 082001.	3.5	71
80	Suppression of the Critical Temperature of Superconducting NdFeAs(O/F) Single Crystals by Kondo-Like Defect Sites Induced by \pm -Particle Irradiation. Physical Review Letters, 2010, 104, 087002.	7.8	70
81	Artificially engineered superlattices of pnictide superconductors. Nature Materials, 2013, 12, 392-396. Role of weak uncorrelated pinning introduced by BaZrO ₃ nanorods at low-temperature in	27.5	70
82			

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91	Methods of introducing lead into bismuth-2223 and their effects on phase development and superconducting properties. <i>Physica C: Superconductivity and Its Applications</i> , 1994, 223, 163-172.	1.2	61
92	New perspectives on flux pinning in niobium-titanium composite superconductors. <i>Acta Metallurgica</i> , 1984, 32, 1871-1881.	2.1	60
93	A TEM-EELS study of hole concentrations near strongly and weakly coupled grain boundaries in electromagnetically characterized YBa ₂ Cu ₃ O _{7-δ} bicrystals. <i>Physica C: Superconductivity and Its Applications</i> , 1994, 227, 183-196.	1.2	60
94	Filament to filament bridging and its influence on developing high critical current density in multifilamentary Bi ₂ Sr ₂ CaCu ₂ O _x round wires. <i>Superconductor Science and Technology</i> , 2010, 23, 025009.	3.5	60
95	Evidence for electromagnetic granularity in the polycrystalline iron-based superconductor LaO _{0.89} F _{0.11} FeAs. <i>Applied Physics Letters</i> , 2008, 92, 252501.	3.3	59
96	Record current density of 344 A mm ⁻² at 4.2 K and 17 T in CORC [®] accelerator magnet cables. <i>Superconductor Science and Technology</i> , 2016, 29, 055009.	3.5	59
97	Weak links and the poor transport critical currents of the 123 compounds. <i>Physica C: Superconductivity and Its Applications</i> , 1988, 153-155, 1580-1585.	1.2	56
98	Significant enhancement of irreversibility field in clean-limit bulk MgB ₂ . <i>Applied Physics Letters</i> , 2002, 81, 4577-4579.	3.3	56
99	Effect of grain refinement on enhancing critical current density and upper critical field in undoped MgB ₂ <i>ex situ</i> tapes. <i>Journal of Applied Physics</i> , 2008, 104, .	2.5	55
100	Flux-pinning mechanism of proximity-coupled planar defects in conventional superconductors: Evidence that magnetic pinning is the dominant pinning mechanism in niobium-titanium alloy. <i>Physical Review B</i> , 1996, 53, 6638-6652.	3.2	54
101	The 40 T Superconducting Magnet Project at the National High Magnetic Field Laboratory. <i>IEEE Transactions on Applied Superconductivity</i> , 2020, 30, 1-5.	1.7	54
102	Conversion of La ₂ CuO ₄ to a superconductor by treatment in fluorine gas. <i>Solid State Communications</i> , 1988, 65, 51-54.	1.9	53
103	Austenitic stainless steels at cryogenic temperatures – Structural stability and magnetic properties. <i>Cryogenics</i> , 1973, 13, 160-168.	1.7	52
104	Development of high critical current densities in niobium 46.5 wt% titanium. <i>Cryogenics</i> , 1987, 27, 171-177.	1.7	52
105	Progress in superconducting performance of rolled multifilamentary Bi-2223 HTS composite conductors. <i>IEEE Transactions on Applied Superconductivity</i> , 1997, 7, 2026-2029.	1.7	52
106	Stable, predictable and training-free operation of superconducting Bi-2212 Rutherford cable racetrack coils at the wire current density of 1000 A/mm ² . <i>Scientific Reports</i> , 2019, 9, 10170.	3.3	52
107	Current transfer lengths and the origin of linear components in the voltage - current curves of Ag-sheathed BSCCO components. <i>Superconductor Science and Technology</i> , 1997, 10, 769-777.	3.5	50
108	Simulations of the effects of tin composition gradients on the superconducting properties of Nb ₃ Sn conductors. <i>Journal of Applied Physics</i> , 2004, 96, 2122-2130.	2.5	50

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109	Evidence for strong flux pinning by small, dense nanoprecipitates in a Sm-doped YBa ₂ Cu ₃ O _{7-δ} coated conductor. Applied Physics Letters, 2006, 88, 212508.	3.3	50
110	Analyses of the plastic deformation of coated conductors deconstructed from ultra-high field test coils. Superconductor Science and Technology, 2020, 33, 095012.	3.5	50
111	Resistive transitions and the origin of the value in superconductors with a Gaussian critical current distribution. Journal of Applied Physics, 1993, 74, 3312-3315.	2.5	49
112	High-Performance Bi-2212 Round Wires Made With Recent Powders. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	49
113	Suppression of magnetic granularity by transport current in (Bi,Pb) ₂ Sr ₂ Ca ₂ Cu ₃ O _x tapes. Applied Physics Letters, 1995, 67, 2720-2722.	3.3	48
114	Analytical technique for deriving the distribution of critical currents in a superconducting wire. Applied Physics Letters, 1986, 48, 1403-1405.	3.3	47
115	Experimental evidence for granular superconductivity in Y-Ba-Cu-O at 100 to 160 K. Physical Review Letters, 1987, 58, 2798-2801.	7.8	47
116	Evidence that filament fracture occurs in an ITER toroidal field conductor after cyclic Lorentz force loading in SULTAN. Superconductor Science and Technology, 2012, 25, 075007.	3.5	47
117	Cooling rate effects on the microstructure, critical current density, and T _c transition of one- and two-powder BSCCO-2223 Ag-sheathed tapes. IEEE Transactions on Applied Superconductivity, 1995, 5, 1275-1278.	1.7	46
118	Demonstration of an iron-pnictide bulk superconducting magnet capable of trapping over 1 T. Superconductor Science and Technology, 2015, 28, 112001.	3.5	46
119	Study of powder density, Ag:superconductor ratio, and microhardness of BSCCO-2212 Ag-sheathed wires and tapes during wire drawing and rolling. IEEE Transactions on Applied Superconductivity, 1995, 5, 1279-1282.	1.7	45
120	Superconductor Flux Pinning and Grain Boundary Control. Science, 1996, 274, 736-737.	12.6	45
121	Inter- and intragrain transport measurements in YBa ₂ Cu ₃ O _{7-δ} deformation textured coated conductors. Applied Physics Letters, 2001, 79, 3998-4000.	3.3	45
122	Grain orientations and grain boundary networks of YBa ₂ Cu ₃ O _{7-δ} films deposited by metalorganic and pulsed laser deposition on biaxially textured Ni ₃ W substrates. Journal of Materials Research, 2006, 21, 923-934.	2.6	45
123	Combined microstructural and magneto-optical study of current flow in polycrystalline forms of Nd and Sm Fe-oxypnictides. Superconductor Science and Technology, 2009, 22, 015010.	3.5	45
124	Reduction of Gas Bubbles and Improved Critical Current Density in Bi-2212 Round Wire by Swaging. IEEE Transactions on Applied Superconductivity, 2013, 23, 6400206-6400206.	1.7	45
125	Development of very high J _c in Ba(Fe _{1-x} Cox) ₂ As ₂ thin films grown on CaF ₂ . Scientific Reports, 2014, 4, 7305.	3.3	45
126	Small grains: a key to high-field applications of granular Ba-122 superconductors?. Superconductor Science and Technology, 2016, 29, 025004.	3.5	44

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127	A CORC [®] cable insert solenoid: the first high-temperature superconducting insert magnet tested at currents exceeding 4 kA in 14 T background magnetic field. Superconductor Science and Technology, 2020, 33, 05LT03.	3.5	44
128	Electromagnetic coupling character of [001] twist boundaries in sintered Bi ₂ Sr ₂ CaCu ₂ O _{8+x} bicrystals. Physica C: Superconductivity and Its Applications, 1994, 230, 189-198.	1.2	43
129	Critical current properties and the nature of the electromagnetic coupling in melt-textured YBa ₂ Cu ₃ O _{6+x} bicrystals of general misorientation. Physica C: Superconductivity and Its Applications, 1997, 280, 221-233.	1.2	43
130	Void and phase evolution during the processing of Bi-2212 superconducting wires monitored by combined fast synchrotron micro-tomography and x-ray diffraction. Superconductor Science and Technology, 2011, 24, 115004.	3.5	43
131		3.2	43
132	Through-process study of factors controlling the critical current density of Ag-sheathed (Bi,Pb) ₂ Sr ₂ Ca ₂ Cu ₃ O _x tapes. Superconductor Science and Technology, 2001, 14, 548-556.	3.5	42
133	Self-assembled oxide nanopillars in epitaxial BaFe ₂ As ₂ thin films for vortex pinning. Applied Physics Letters, 2011, 98, .	3.3	42
134	Beneficial influence of Hf and Zr additions to Nb ₄ at%Ta on the vortex pinning of Nb ₃ Sn with and without an O source. Superconductor Science and Technology, 2019, 32, 044006.	3.5	42
135	Evidence for electromagnetic granularity in polycrystalline Sm1111 iron-pnictides with enhanced phase purity. Superconductor Science and Technology, 2011, 24, 045010.	3.5	41
136	Understanding quench in no-insulation (NI) REBCO magnets through experiments and simulations. Superconductor Science and Technology, 2020, 33, 035002.	3.5	41
137	Manufacture and evaluation of Nb ₃ Sn conductors fabricated by the MJR method. IEEE Transactions on Magnetics, 1983, 19, 1124-1127.	2.1	40
138	Significantly enhanced critical current density in Ag-sheathed (Bi,Pb) ₂ Sr ₂ Ca ₂ Cu ₃ O _x composite conductors prepared by overpressure processing in final heat treatment. Applied Physics Letters, 2004, 84, 2127-2129.	3.3	40
139	Microstructure, Microchemistry and the Development of Very High $\mu_0 J_c$ Nb ₃ Sn $\mu_0 J_c$ Layer Critical Current Density. IEEE Transactions on Applied Superconductivity, 2005, 15, 3474-3477.	1.7	40
140	High critical current densities in industrial scale composites made from high homogeneity Nb 46.5 Ti. IEEE Transactions on Magnetics, 1985, 21, 269-272.	2.1	39
141	Understanding the route to high critical current density in mechanically alloyed Mg(B _{1-x} C _x) ₂ . Superconductor Science and Technology, 2007, 20, 650-657.	3.5	39
142	Thermally activated current transport in MgB ₂ films. Physical Review B, 2004, 70, .	3.2	38
143	Microstructural changes produced in a multifilamentary Nb-Ti composite by cold work and heat treatment. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1984, 15, 843-852.	1.4	37
144	Texture relationships and interface structure in Ag-sheathed Bi(Pb)-Sr-Ca-Cu-O superconducting tapes. Journal of Materials Science, 1994, 1, 401.	1.2	37

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145	Through-thickness superconducting and normal-state transport properties revealed by thinning of thick film ex situ YBa ₂ Cu ₃ O _{7-x} coated conductors. Applied Physics Letters, 2003, 83, 3951-3953.	3.3	37
146	Critical current limiting factors in post annealed (Bi; Pb) ₂ /Sr ₂ /Ca ₂ /Cu ₃ /O _x tapes. IEEE Transactions on Applied Superconductivity, 2003, 13, 3018-3021.	1.7	37
147	Microstructures of SiC nanoparticle-doped MgB ₂ -Fe tapes. Journal of Applied Physics, 2007, 102, 013913.	2.5	37
148	Mechanisms for enhanced supercurrent across meandered grain boundaries in high-temperature superconductors. Journal of Applied Physics, 2007, 102, 083912.	2.5	37
149	Conductors from Superconductors: Conventional Low-Temperature and New High-Temperature Superconducting Conductors. MRS Bulletin, 1993, 18, 50-56.	3.5	36
150	Evidence for Extensive Grain Boundary Meander and Overgrowth of Substrate Grain Boundaries in High Critical Current Density ex Situ YBa ₂ Cu ₃ O _{7-x} Coated Conductors. Journal of Materials Research, 2005, 20, 2012-2020.	2.6	36
151	A high critical current density MOCVD coated conductor with strong vortex pinning centers suitable for very high field use. Superconductor Science and Technology, 2009, 22, 055013.	3.5	36
152	Examination of the trade-off between intrinsic and extrinsic properties in the optimization of a modern internal tin Nb ₃ Sn conductor. Superconductor Science and Technology, 2014, 27, 065013.	3.5	36
153	Determination of the flux pinning force of δ -Ti ribbons in Nb _{46.5} wt% Ti produced by heat treatments of varying temperature, duration and frequency. Journal of Materials Science, 1988, 23, 3951-3957.	3.7	35
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