

# David A Cardwell

## List of Publications by Year in descending order

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233  
papers

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109137

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docs citations

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times ranked

1479  
citing authors

#	ARTICLE	IF	CITATIONS
1	A trapped field of 17.6 T in melt-processed, bulk Gd-Ba-Cu-O reinforced with shrink-fit steel. Superconductor Science and Technology, 2014, 27, 082001.	1.8	457
2	Processing and properties of large grain (RE)BCO. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1998, 53, 1-10.	1.7	246
3	High intergranular critical currents in metallic MgB <sub>2</sub> superconductor. Superconductor Science and Technology, 2001, 14, L5-L7.	1.8	182
4	Bulk superconductors: a roadmap to applications. Superconductor Science and Technology, 2018, 31, 103501.	1.8	152
5	A practical route for the fabrication of large single-crystal (RE)BaCuO superconductors. Nature Materials, 2005, 4, 476-480.	13.3	125
6	Modelling and comparison of trapped fields in (RE)BCO bulk superconductors for activation using pulsed field magnetization. Superconductor Science and Technology, 2014, 27, 065008.	1.8	112
7	Neutron irradiation of MgB <sub>2</sub> bulk superconductors. Superconductor Science and Technology, 2002, 15, L9-L12.	1.8	104
8	Artificial flux pinning centers in large, single-grain (RE)-Ba-Cu-O superconductors. Applied Physics Letters, 2003, 83, 4806-4808.	1.5	103
9	Seeded infiltration and growth of large, single domain YBaCuO bulk superconductors with very high critical current densities. Superconductor Science and Technology, 2005, 18, 1421-1427.	1.8	100
10	Development of a generic seed crystal for the fabrication of large grain (RE)BaCuO bulk superconductors. Superconductor Science and Technology, 2005, 18, L13-L16.	1.8	95
11	A trapped field of >3 T in bulk MgB <sub>2</sub> fabricated by uniaxial hot pressing. Superconductor Science and Technology, 2012, 25, 112002.	1.8	92
12	Fabrication of large grain YBCO by seeded peritectic solidification. Journal of Materials Research, 1996, 11, 786-794.	1.2	90
13	Behavior of bulk high-temperature superconductors of finite thickness subjected to crossed magnetic fields: Experiment and model. Physical Review B, 2007, 75, .	1.1	87
14	Spin-dependent momentum distribution in iron studied with circularly polarized synchrotron radiation. Physical Review B, 1986, 34, 5984-5987.	1.1	81
15	Enhanced trapped field performance of bulk high-temperature superconductors using split coil, pulsed field magnetization with an iron yoke. Superconductor Science and Technology, 2016, 29, 074003.	1.8	63
16	Fabrication of Large Single-grain YBaCuO Through Infiltration and Seeded Growth Processing. Journal of Materials Research, 2000, 15, 1235-1238.	1.2	61
17	Buffer Pellets for High-Yield, Top-Seeded Melt Growth of Large Grain YBaCuO Superconductors. Crystal Growth and Design, 2015, 15, 1472-1480.	1.4	57
18	New chemically stable, nano-size artificial flux pinning centres in (RE)BaCuO superconductors. Superconductor Science and Technology, 2003, 16, L44-L45.	1.8	56

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19	An improved top seeded infiltration growth method for the fabrication of YBaCuO bulk superconductors. Journal of the European Ceramic Society, 2016, 36, 615-624.	2.8	53
20	Processing of bulk YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> ceramics prior to peritectic solidification. Journal of Materials Science, 1995, 30, 3995-4002.	1.7	52
21	The effect of Y-211 precursor particle size on the microstructure and properties of YBaCuO bulk superconductors fabricated by seeded infiltration and growth. Superconductor Science and Technology, 2006, 19, 711-718.	1.8	49
22	Processing and microstructure of single grain, uranium-doped YBaCuO superconductor. Superconductor Science and Technology, 2002, 15, 104-110.	1.8	47
23	Simulating the In-Field AC and DC Performance of High-Temperature Superconducting Coils. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	47
24	Fabrication of high performance light rare earth based single-grain superconductors in air. Applied Physics Letters, 2005, 87, 202506.	1.5	46
25	The Influence of Y-211 Content on the Growth Rate and Y-211 Distribution in YBaCuO Single Grains Fabricated by Top Seeded Melt Growth. Crystal Growth and Design, 2014, 14, 6367-6375.	1.4	44
26	Synthesis of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> and Y <sub>2</sub> BaCuO <sub>5</sub> Nanocrystalline Powders for YBCO Superconductors Using Carbon Nanotube Templates. ACS Nano, 2012, 6, 5395-5403.	7.3	43
27	Seeded infiltration and growth of single-domain GdBaCuO bulk superconductors using a generic seed crystal. Superconductor Science and Technology, 2006, 19, S478-S485.	1.8	42
28	Growth of strongly biaxially aligned MgB <sub>2</sub> thin films on sapphire by postannealing of amorphous precursors. Applied Physics Letters, 2001, 79, 4001-4003.	1.5	40
29	YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> /Y <sub>2</sub> Ba <sub>4</sub> CuMO single grain nanocomposite superconductors with high critical current densities. Superconductor Science and Technology, 2006, 19, S461-S465.	1.8	40
30	Remagnetization of bulk high-temperature superconductors subjected to crossed and rotating magnetic fields. Superconductor Science and Technology, 2007, 20, S174-S183.	1.8	40
31	A portable magnetic field of >3 T generated by the flux jump assisted, pulsed field magnetization of bulk superconductors. Applied Physics Letters, 2017, 110, .	1.5	40
32	The irreversibility behavior of NdBaCuO fabricated by top-seeded melt processing. Applied Physics Letters, 1999, 75, 2981-2983.	1.5	38
33	Controlled processing and properties of large Pt-doped YBaCuO pseudocrystals for electromagnetic applications. Journal of Materials Research, 1997, 12, 2889-2900.	1.2	37
34	The effect of nano-size ZrO <sub>2</sub> powder addition on the microstructure and superconducting properties of single-domain YBaCuO bulk superconductors. Superconductor Science and Technology, 2005, 18, 249-254.	1.8	37
35	Properties of GdBCO bulk superconductors melt-processed in air using a Mg-doped NdBaCuO generic seed crystal. Superconductor Science and Technology, 2007, 20, 38-43.	1.8	36
36	A controllable temperature gradient furnace for the fabrication of large grain YBCO ceramics. Journal of Materials Science Letters, 1995, 14, 1444-1447.	0.5	34

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37	Preparation and properties of spray dried precursor powder for melt-processed bulk YBCO ceramics. <i>Journal of Materials Research</i> , 1996, 11, 39-49.	1.2	32
38	Composite stacks for reliable > 17 T trapped fields in bulk superconductor magnets. <i>Superconductor Science and Technology</i> , 2020, 33, 02LT01.	1.8	32
39	Flux pinning in largeNdBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> grains fabricated by seeded-melt growth. <i>Physical Review B</i> , 2000, 61, 735-740.	1.1	31
40	Top seeded melt growth of Gd-Ba-Cu-O single grain superconductors. <i>Superconductor Science and Technology</i> , 2010, 23, 034008.	1.8	31
41	Mechanical characterization of GdBCO/Ag and YBCO single grains fabricated by top-seeded melt growth at 77 and 300 K. <i>Superconductor Science and Technology</i> , 2014, 27, 115011.	1.8	31
42	Exploiting flux jumps for pulsed field magnetisation. <i>Superconductor Science and Technology</i> , 2018, 31, 105005.	1.8	31
43	The influence of process parameters on the growth morphology of large-grain Pt-doped YBCO fabricated by seeded peritectic solidification. <i>Superconductor Science and Technology</i> , 1997, 10, 435-443.	1.8	30
44	Toward Optimization of Multi-Pulse, Pulsed Field Magnetization of Bulk High-Temperature Superconductors. <i>IEEE Transactions on Applied Superconductivity</i> , 2018, 28, 1-7.	1.1	30
45	Reliable single grain growth of (RE)BCO bulk superconductors with enhanced superconducting properties. <i>Superconductor Science and Technology</i> , 2020, 33, 024004.	1.8	30
46	The effect of size, morphology and crystallinity of seed crystals on the nucleation and growth of Y-Ba-Cu-O single-grain superconductors. <i>Superconductor Science and Technology</i> , 2005, 18, 64-72.	1.8	29
47	The use of buffer pellets to pseudo hot seed (RE)-Ba-Cu-O (Ag) single grain bulk superconductors. <i>Superconductor Science and Technology</i> , 2016, 29, 015010.	1.8	29
48	A trapped field of 14.3 T in Y-Ba-Cu-O bulk superconductors fabricated by buffer-assisted seeded infiltration and growth. <i>Superconductor Science and Technology</i> , 2018, 31, 125004.	1.8	29
49	Numerical modelling of mechanical stresses in bulk superconductor magnets with and without mechanical reinforcement. <i>Superconductor Science and Technology</i> , 2019, 32, 034002.	1.8	29
50	Crystallographic Orientation of Y <sub>2</sub> Ba <sub>4</sub> CuMO <sub>x</sub> (M=Nb, Zr, Ag) Nanoparticles Embedded in Bulk, Melt-Textured YBCO Studied by EBSD. <i>Journal of the American Ceramic Society</i> , 2007, 90, 2582-2588.	1.9	28
51	High Trapped Fields in C-doped MgB <sub>2</sub> Bulk Superconductors Fabricated by Infiltration and Growth Process. <i>Scientific Reports</i> , 2018, 8, 13320.	1.6	28
52	Synthesis of Y <sub>2</sub> BaCuO <sub>5</sub> nano-whiskers by a solution blow spinning technique and their successful introduction into single-grain, YBCO bulk superconductors. <i>Ceramics International</i> , 2019, 45, 3948-3953.	2.3	28
53	A transmission electron microscopy study of the crystallinity and secondary phase formation in melt-processed YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> . <i>Journal of Materials Research</i> , 1996, 11, 2990-2999.	1.2	27
54	Gd-Ba-Cu-O bulk superconductors fabricated by a seeded infiltration growth technique under reduced oxygen partial pressure. <i>Superconductor Science and Technology</i> , 2006, 19, 641-647.	1.8	27

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55	A new seeding technique for the reliable fabrication of large, SmBCO single grains containing silver using top seeded melt growth. Superconductor Science and Technology, 2015, 28, 035014.	1.8	27
56	Influence of soft ferromagnetic sections on the magnetic flux density profile of a large grain, bulk $\text{YBaCuO}$ superconductor. Superconductor Science and Technology, 2015, 28, 095008.	1.8	27
57	A trapped magnetic field of 3 T in homogeneous, bulk $\text{MgB}_2$ superconductors fabricated by a modified precursor infiltration and growth process. Superconductor Science and Technology, 2016, 29, 035008.	1.8	27
58	The effect of exchange and correlation on the agreement between APW and LCAO Compton profiles and experiment. Journal of Physics Condensed Matter, 1989, 1, 9357-9367.	0.7	26
59	Synthesis of dense bulk $\text{MgB}_2$ by an infiltration and growth process. Superconductor Science and Technology, 2015, 28, 015012.	1.8	26
60	Control of Y-211 content in bulk YBCO superconductors fabricated by a buffer-aided, top seeded infiltration and growth melt process. Superconductor Science and Technology, 2016, 29, 034007.	1.8	26
61	Distribution of the superconducting critical current density within a $\text{GdBaCuO}$ single grain. Superconductor Science and Technology, 2020, 33, 044009.	1.8	26
62	A novel, two-step top seeded infiltration and growth process for the fabrication of single grain, bulk (RE)BCO superconductors. Superconductor Science and Technology, 2016, 29, 095010.	1.8	25
63	High field behavior of artificially engineered boundaries in melt-processed $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ . Applied Physics Letters, 1998, 73, 117-119.	1.5	24
64	Processing and Properties of Bulk $\text{YBaCuO}$ Superconductors Fabricated by Top Seeded Melt Growth from Precursor Pellets Containing a Graded $\text{CeO}_2$ Composition. Crystal Growth and Design, 2015, 15, 907-914.	1.4	24
65	Processing, microstructure and characterization of artificial joints in top seeded melt grown $\text{YBaCuO}$ . Superconductor Science and Technology, 2002, 15, 639-647.	1.8	23
66	Flux pinning in melt-processed nanocomposite single-grain superconductors. Superconductor Science and Technology, 2007, 20, S141-S146.	1.8	23
67	Growth Rate and Superconducting Properties of Gd-Ba-Cu-O Bulk Superconductors Melt Processed in Air. IEEE Transactions on Applied Superconductivity, 2007, 17, 2984-2987.	1.1	23
68	Multiseeded melt growth of bulk $\text{YBaCuO}$ using thin film seeds. Journal of Applied Physics, 2010, 108, .	1.1	23
69	anisotropy of the magnetic excitations in the normal and superconducting states of optimally doped $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$	1.1	23
70	Artificial pinning centres in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ thin films by $\text{Gd}_2\text{Ba}_4\text{CuWO}_{10}$ nanophase inclusions. Superconductor Science and Technology, 2009, 22, 034020.	1.8	22
71	Compton scattering studies of electron correlation effects in chromium. Journal of Physics Condensed Matter, 1989, 1, 541-550.	0.7	21
72	Effects of Pt doping on the size distribution and uniformity of particles in large-grain YBCO. Superconductor Science and Technology, 1998, 11, 369-374.	1.8	21

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73	A robust seeding technique for the growth of single grain (RE)BCO and (RE)BCO+Ag bulk superconductors. Superconductor Science and Technology, 2018, 31, 044003.	1.8	21
74	Dynamic levitation performance of Gd+Ba+Cu+O and Y+Ba+Cu+O bulk superconductors under a varying external magnetic field. Superconductor Science and Technology, 2018, 31, 035010.	1.8	21
75	Analysis of the spatial distribution of Y2BaCuO5 inclusions in large-grain YBa2Cu3O7- $\delta$ . Journal of Materials Science, 1998, 33, 1083-1089.	1.7	20
76	Enhancement of Jc under magnetic field by Zn doping in melt-textured YBaCuO superconductors. Superconductor Science and Technology, 2002, 15, 1372-1376.	1.8	20
77	Round robin tests on large grain melt processed Sm+Ba+Cu+O bulk superconductors. Superconductor Science and Technology, 2005, 18, S173-S179.	1.8	20
78	Silver-doped Y+Ba+Cu+O bulk superconductors fabricated by seeded infiltration and growth. Superconductor Science and Technology, 2007, 20, 1065-1070.	1.8	20
79	The effect of undercooling and Nd422 phase content on the nucleation of large Nd+Ba+Cu+O grains fabricated by top-seeded melt processing. Journal of Materials Research, 1999, 14, 3859-3863.	1.2	19
80	Strongly Coupled Artificial Bulk HTS Grain Boundaries With High Critical Current Densities. IEEE Transactions on Applied Superconductivity, 2007, 17, 2949-2952.	1.1	19
81	An ac susceptometer for the characterization of large, bulk superconducting samples. Measurement Science and Technology, 2008, 19, 085705.	1.4	19
82	Improving Mechanical Strength of YBCO Bulk Superconductors by Addition of Ag. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	19
83	Fabrication and characterization of large Nd+Ba+Cu+O grains prepared under low oxygen pressure. Journal of Materials Research, 2000, 15, 33-39.	1.2	18
84	Seeded Infiltration and Growth of Bulk YBCO Nano-Composites. IEEE Transactions on Applied Superconductivity, 2011, 21, 2698-2701.	1.1	18
85	Growth of large sized Y Ba <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> single crystals using the top seeded melt growth process. Superconductor Science and Technology, 2012, 25, 075012.	1.8	18
86	The processing and properties of single grain Y+Ba+Cu+O fabricated from graded precursor powders. Superconductor Science and Technology, 2013, 26, 125021.	1.8	18
87	A Reliable Method for Recycling (RE) <sub>1-x</sub> Ba <sub>x</sub> CuO (RE: Sm, Gd, Y) Bulk Superconductors. Journal of the American Ceramic Society, 2015, 98, 2760-2766.	1.9	18
88	Improvements in the processing of large grain, bulk Y+Ba+Cu+O superconductors via the use of additional liquid phase. Superconductor Science and Technology, 2017, 30, 015017.	1.8	18
89	The successful incorporation of Ag into single grain, Y+Ba+Cu+O bulk superconductors. Superconductor Science and Technology, 2018, 31, 035008.	1.8	18
90	Evidence for high intergranular current flow in a single-phase polycrystalline MgB2 superconductor. Applied Physics Letters, 2001, 79, 2216-2218.	1.5	17

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91	An electron backscatter diffraction investigation of crystallographic orientations of embedded nanoparticles within melt-textured YBCO high temperature superconductors. Superconductor Science and Technology, 2006, 19, S562-S566.	1.8	17
92	The influence of Gd-2411(Nb) on the superconducting properties of GdBCO/Ag single grains. Superconductor Science and Technology, 2009, 22, 075025.	1.8	17
93	Properties of grain boundaries in bulk, melt processed $Y\text{-}Ba\text{-}Cu\text{-}O$ fabricated using bridge-shaped seeds. Superconductor Science and Technology, 2012, 25, 045006.	1.8	17
94	Effect of Y-211 particle size on the growth of single grain $Y\text{-}Ba\text{-}Cu\text{-}O$ bulk superconductors. Journal of Crystal Growth, 2015, 412, 31-39.	0.7	17
95	Processing, microstructure and irreversibility of large-grain Nd-Ba-Cu-O. Superconductor Science and Technology, 2000, 13, 646-654.	1.8	16
96	Magneto-thermal phenomena in bulk high temperature superconductors subjected to applied AC magnetic fields. Superconductor Science and Technology, 2010, 23, 075006.	1.8	16
97	Pulsed field magnetization of $0^\circ$ and $45^\circ$ bridge-seeded $Y\text{-}Ba\text{-}Cu\text{-}O$ bulk superconductors. Superconductor Science and Technology, 2015, 28, 125002.	1.8	16
98	Advantages of multi-seeded (RE) $\text{-}Ba\text{-}Cu\text{-}O$ superconductors for magnetic levitation applications. Superconductor Science and Technology, 2018, 31, 095008.	1.8	16
99	Microwave-assisted oxygenation of melt-processed bulk $YBa_2Cu_3O_{7-\delta}$ ceramics. Journal of Materials Science, 1997, 32, 4541-4547.	1.7	15
100	Fabrication and microstructure of large grain Nd-Ba-Cu-O. Superconductor Science and Technology, 2000, 13, 468-472.	1.8	15
101	Improved magnetic flux pinning in melt processed (Y,Nd) $YBa_2Cu_3O_{7-\delta}$ superconductor. Superconductor Science and Technology, 2005, 18, S38-S42.	1.8	15
102	Mg-doped Nd-Ba-Cu-O generic seed crystals for the top-seeded melt growth of large-grain (rare) $T_j$ $ETQqO O O rgBT$ $(\text{Overlock } 10 Tf 50 30)$	1.2	15
103	Critical-current density of melt-grown single-grain $Y\text{-}Ba\text{-}Cu\text{-}O$ disks determined by ac susceptibility measurements. Superconductor Science and Technology, 2008, 21, 085013.	1.8	15
104	Enhanced self-field critical current density of nano-composite $YBa_2Cu_3O_7$ thin films grown by pulsed-laser deposition. Europhysics Letters, 2008, 82, 57006.	0.7	15
105	The Use of an $\text{MgB}_2$ Hollow Cylinder and Pulse Magnetized (RE)BCO Bulk for Magnetic Levitation Applications. IEEE Transactions on Applied Superconductivity, 2013, 23, 6800604-6800604.	1.1	15
106	Bulk YBCO seeded with $45^\circ$ bridge-seeds of different lengths. Superconductor Science and Technology, 2013, 26, 015012.	1.8	15
107	Factors Affecting the Growth of Multiseeded Superconducting Single Grains. Crystal Growth and Design, 2016, 16, 5110-5117.	1.4	15
108	Cost-effective isothermal top-seeded melt-growth of single-domain YBCO superconducting ceramics. Solid State Sciences, 2019, 88, 74-80.	1.5	15



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109	Correlation of transport and magnetic critical currents in melt-processed YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> thick films. Journal of Applied Physics, 1994, 76, 1720-1725.	1.1	14
110	The effect of thickness on the magnetic properties of melt-processed YBCO thick films. Superconductor Science and Technology, 1995, 8, 282-290.	1.8	14
111	Growth of melt-textured Nd-123 by hot seeding under reduced oxygen partial pressure. Journal of Materials Research, 2001, 16, 1163-1170.	1.2	14
112	Magneto-Optical Imaging of Superconductors for Liquid Hydrogen Applications. Journal of Superconductivity and Novel Magnetism, 2013, 26, 1499-1502.	0.8	14
113	A Comparison of 0° and 45° bridge-seeded, YBCO single grains. Journal of the American Ceramic Society, 2013, 96, 1757-1762.	1.9	14
114	Influence of Time-Varying External Magnetic Fields on Trapped Fields in Bulk Superconductors. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	14
115	Microstructure and Composition of Primary and Recycled Single Grains of YBCO, GdBCO/Ag, and SmBCO/Ag Bulk Superconductors. Journal of the American Ceramic Society, 2016, 99, 3111-3119.	1.9	14
116	Multiple seeding for the growth of bulk GdBCO/Ag superconductors with single grain behaviour. Superconductor Science and Technology, 2017, 30, 015003.	1.8	14
117	Directional Compton profile measurements of aluminium with 412 and 60 keV radiation. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1986, 54, 37-49.	0.6	13
118	Control of Y <sub>2</sub> BaCuO <sub>5</sub> particle formation in bulk, single grain Y-Ba-Cu-O. Superconductor Science and Technology, 2009, 22, 065011.	1.8	13
119	Full Magnetization of Bulk (RE)Ba <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> Magnets With Various Rare-Earth Elements Using Pulsed Fields at 77 K. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-4.	1.1	13
120	Microstructural evolution in infiltration-growth processed MgB <sub>2</sub> bulk superconductors. Journal of the American Ceramic Society, 2017, 100, 2451-2460.	1.9	13
121	The Measurement and Modeling of the Levitation Force Between Single-Grain YBCO Bulk Superconductors and Permanent Magnets. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-10.	1.1	13
122	Enhanced Mechanical Properties of Single-Domain YBCO Bulk Superconductors Processed With Artificial Holes. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-4.	1.1	13
123	The effect of size and aspect ratio on the trapped field properties of single grain, Y-Ba-Cu-O bulk superconductors. Superconductor Science and Technology, 2019, 32, 025005.	1.8	13
124	Self-assembled artificial pinning centres in thick YBCO superconducting films. Journal of Physics: Conference Series, 2010, 234, 022022.	0.3	12
125	Reliable 4.8 T trapped magnetic fields in Gd-Ba-Cu-O bulk superconductors using pulsed field magnetization. Superconductor Science and Technology, 2021, 34, 034002.	1.8	12
126	The influence of the addition of depleted uranium on particle pushing in melt-processed, bulk Y-Ba-Cu-O. Superconductor Science and Technology, 2004, 17, 186-193.	1.8	11



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127	The effect of the addition of zirconium-containing compounds on the microstructure and superconducting properties of mono-domain $Y\text{BaCuO}$ bulk superconductors. <i>Superconductor Science and Technology</i> , 2005, 18, 704-709.	1.8	11
128	A practical processing method for the fabrication of high performance, single grain (LRE)- $Y\text{BaCuO}$ superconductors. <i>Superconductor Science and Technology</i> , 2006, 19, S510-S516.	1.8	11
129	Nano-composite single grain $YBa_2Cu_3O_{7-x}/Y_2Ba_4CuBiO_y$ bulk superconductors. <i>Journal of Physics: Conference Series</i> , 2006, 43, 377-380.	0.3	11
130	Recycling of multi-grain, melt processed bulk (RE)BCO superconductors. <i>Superconductor Science and Technology</i> , 2010, 23, 065012.	1.8	11
131	Simulation studies on the magnetization of (RE)BCO bulk superconductors using various split-coil arrangements. <i>Superconductor Science and Technology</i> , 2012, 25, 025016.	1.8	11
132	Improving the superconducting properties of single grain $Sm\text{BaCuO}$ bulk superconductors fabricated in air by increased control of Sm/Ba substitution effects. <i>Superconductor Science and Technology</i> , 2013, 26, 095012.	1.8	11
133	Numerical Analysis of Non-Uniformities and Anisotropy in High-Temperature Superconducting Coils. <i>IEEE Transactions on Applied Superconductivity</i> , 2015, 25, 1-5.	1.1	11
134	Comparison of the effects of platinum and $CeO_2$ on the properties of single grain, $Sm\text{BaCuO}$ bulk superconductors. <i>Superconductor Science and Technology</i> , 2016, 29, 125002.	1.8	11
135	Flux jumps in ring-shaped and assembled bulk superconductors during pulsed field magnetization. <i>Superconductor Science and Technology</i> , 2020, 33, 034001.	1.8	11
136	Bulk Superconducting Nano-Composites With High Critical Currents. <i>IEEE Transactions on Applied Superconductivity</i> , 2007, 17, 2953-2956.	1.1	10
137	The effect of very high barium content in the precursor on the properties of GdBCO single grain bulk superconductors. <i>Journal of Materials Research</i> , 2009, 24, 10-18.	1.2	10
138	Mitigation of Demagnetization of Bulk Superconductors by Time-Varying External Magnetic Fields. <i>IEEE Transactions on Applied Superconductivity</i> , 2016, 26, 1-5.	1.1	10
139	Spatial Distribution of Flexural Strength in $Y\text{BaCuO}$ Bulk Superconductors. <i>IEEE Transactions on Applied Superconductivity</i> , 2018, 28, 1-5.	1.1	10
140	Improved trapped field performance of single grain $Y\text{BaCuO}$ bulk superconductors containing artificial holes. <i>Journal of the American Ceramic Society</i> , 2021, 104, 6309-6318.	1.9	10
141	Growth morphology of large YBCO grains fabricated by seeded peritectic solidification: (I) The seeding process. <i>Journal of Materials Research</i> , 1998, 13, 2048-2056.	1.2	9
142	Large transport critical currents across boundaries in artificially joined large-grain YBCO. <i>Superconductor Science and Technology</i> , 1999, 12, 1054-1058.	1.8	9
143	Effect of oxygen content variation on flux pinning in $Nd\text{BaCuO}$ top-seeded melt grown superconductor. <i>Superconductor Science and Technology</i> , 2002, 15, 702-707.	1.8	9
144	Processing of large grain Y-123 superconductors with pre-defined porous structures. <i>Superconductor Science and Technology</i> , 2005, 18, S15-S18.	1.8	9

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145	Growth rate of YBCO single grains containing Y-2411(M). Journal of Physics: Conference Series, 2010, 234, 012039.	0.3	9
146	Self-heating of bulk high temperature superconductors of finite height subjected to a large alternating magnetic field. Superconductor Science and Technology, 2010, 23, 124004.	1.8	9
147	Fishtail effects and improved critical current density in polycrystalline bulk MgB <sub>2</sub> containing carbon nanotubes. Physica C: Superconductivity and Its Applications, 2013, 492, 6-10.	0.6	9
148	Transport in Bulk Superconductors: A Practical Approach?. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.1	9
149	Magnetic levitation and guidance performance of Y-Ba-Cu-O and Gd-Ba-Cu-O bulk superconductors under low ambient pressure. Journal Physics D: Applied Physics, 2019, 52, 365001.	1.3	9
150	Magnetic Shielding of Open and Semi-closed Bulk Superconductor Tubes: The Role of a Cap. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-9.	1.1	9
151	Microstructure and growth of joins in melt-textured YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> . Journal of Materials Research, 2001, 16, 2298-2305.	1.2	8
152	Temperature dependence of MgB <sub>2</sub> Compton profiles. Physical Review B, 2004, 69, .	1.1	8
153	Numerical simulation and analysis of single grain YBCO processed from graded precursor powders. Superconductor Science and Technology, 2015, 28, 035016.	1.8	8
154	Pulsed Field Magnetization of Bridge-Seeded Bulk YBCO Using Solenoid and Split Coils. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	8
155	Processing of single domain Y-Ba-Cu-O with pre-defined 3D interconnected porosity for bulk reinforcement. Superconductor Science and Technology, 2003, 16, L40-L43.	1.8	7
156	Theoretical simulation studies of pulsed field magnetisation of (RE)BCO bulk superconductors. Journal of Physics: Conference Series, 2010, 234, 012049.	0.3	7
157	Permanent Magnet Enhancement of Fully Superconducting MgB <sub>2</sub> -YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> Bearing. Journal of Superconductivity and Novel Magnetism, 2013, 26, 923-929.	0.8	7
158	Characterization of Bulk MgB <sub>2</sub> ; Synthesized by Infiltration and Growth. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.1	7
159	Penetration depth of shielding currents due to crossed magnetic fields in bulk (RE)-Ba-Cu-O superconductors. Superconductor Science and Technology, 2019, 32, 035010.	1.8	7
160	A reliable technique to fabricate superconducting joints between single grain, Y-Ba-Cu-O bulk superconductors. Superconductor Science and Technology, 2021, 34, 094003.	1.8	7
161	Growth features and intergranular connectivity of melt processed YBCO. Applied Superconductivity, 1996, 4, 507-517.	0.5	6
162	Anisotropic growth morphology and platelet formation in large grain Y-Ba-Cu-O grown by seeded peritectic solidification. Journal of Materials Research, 1998, 13, 1141-1146.	1.2	6

#	ARTICLE	IF	CITATIONS
163	Properties of Y-Ba-Cu-O powder prepared by evaporative decomposition of solution for melt-processed bulk ceramics. Superconductor Science and Technology, 2000, 13, 1526-1532.	1.8	6
164	Self-seeded melt growth of Au-doped Nd-Ba-Cu-O. Superconductor Science and Technology, 2001, 14, 624-630.	1.8	6
165	Improved Flux Pinning in Y-Ba-Cu-O Superconductors Containing Niobium Oxide. IEEE Transactions on Applied Superconductivity, 2009, 19, 2970-2973.	1.1	6
166	A simple method for recycling GdBCO-Ag single grain bulk superconductors. Superconductor Science and Technology, 2011, 24, 075010.	1.8	6
167	The influence of a grain boundary on the thermal transport properties of bulk, melt-processed Y-Ba-Cu-O. Superconductor Science and Technology, 2013, 26, 015006.	1.8	6
168	Computation of the Field in an Axial Gap, Trapped-Flux Type Superconducting Electric Machine. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	6
169	A flux extraction device to measure the magnetic moment of large samples; application to bulk superconductors. Review of Scientific Instruments, 2015, 86, 025107.	0.6	6
170	Use of $\text{Sm}_{123}$ + $\text{Sm}_{211}$ Mixed-Powder Buffers to Assist the Growth of $\text{ZrO}_2$ -doped SmBCO Single Grain, Bulk Superconductors. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	6
171	Pulsed Field Magnetization of Single-Grain Bulk YBCO Processed From Graded Precursor Powders. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.1	6
172	A simple, reliable and robust reinforcement method for the fabrication of (RE)-Ba-Cu-O bulk superconductors. Superconductor Science and Technology, 2020, 33, 054005.	1.8	6
173	The growth and superconducting properties of RE-Ba-Cu-O single grains with combined RE elements (RE=Ag and Y). Superconductor Science and Technology, 2020, 33, 035003.	1.8	6
174	Improved mechanical properties through recycling of Y-Ba-Cu-O bulk superconductors. Journal of the European Ceramic Society, 2021, 41, 3480-3492.	2.8	6
175	The dependence of microstructure and superconducting phase formation on post-sintering cool-rate of BiCaSrCu <sub>2</sub> O ceramic. Superconductor Science and Technology, 1989, 2, 132-139.	1.8	5
176	Investigation of the temperature dependence of the critical state in melt processed YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> , thick films. Journal of Applied Physics, 1995, 77, 2067-2072.	1.1	5
177	Local Dendrite Development during Seeded Peritectic Solidification of Large YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> Grains. Journal of the American Ceramic Society, 1997, 80, 813-816.	1.9	5
178	The existence of a highly undercooled state during the formation of Y <sub>2</sub> BaCuO <sub>5</sub> in large grain Y-Ba-Cu-O superconductors. Superconductor Science and Technology, 2004, 17, L1-L5.	1.8	5
179	Grain orientations and distribution of Y <sub>2</sub> Ba <sub>4</sub> CuUO <sub>x</sub> phase in melt-textured YBCO with addition of depleted uranium oxide studied by EBSD. Superconductor Science and Technology, 2006, 19, S567-S571.	1.8	5
180	Single domain YBCO/Ag bulk superconductors fabricated by seeded infiltration and growth. Journal of Physics: Conference Series, 2008, 97, 012105.	0.3	5

#	ARTICLE	IF	CITATIONS
181	Superconducting properties of Gd-Ba-Cu-O single grains processed from a new, Ba-rich precursor compound. <i>Journal of Physics: Conference Series</i> , 2008, 97, 012250.	0.3	5
182	The anisotropic morphology of silver particles in Y-123/Y-24Nb1/Ag nanocomposite bulk high-temperature superconductors. <i>Journal of Materials Research</i> , 2010, 25, 1243-1250.	1.2	5
183	Field trapping of Y-Ba-Cu-O single grain rings joined to form the geometry of a solenoid. <i>Superconductor Science and Technology</i> , 2010, 23, 045014.	1.8	5
184	Microstructure and Superconducting Properties of Single Grains of Y-Ba-Cu-O Containing Y-2411(M) and $\text{Y}_{2}\text{O}_{3}$ . <i>IEEE Transactions on Applied Superconductivity</i> , 2011, 21, 1576-1578.	1.1	5
185	Processing and Properties of Bar-Shaped Single-Seeded and Multi-Seeded YBCO Bulk Superconductors by a Top-Seeded Melt Growth Technique. <i>Journal of Superconductivity and Novel Magnetism</i> , 2017, 30, 1397-1403.	0.8	5
186	Pulsed-field magnetisation of Y-Ba-Cu-O bulk superconductors fabricated by the infiltration growth technique. <i>Superconductor Science and Technology</i> , 2020, 33, 115012.	1.8	5
187	Waveform Control Pulsed Field Magnetization of RE-Ba-Cu-O Bulk Superconducting Rings. <i>IEEE Transactions on Applied Superconductivity</i> , 2022, 32, 1-5.	1.1	5
188	Investigation of the temperature dependence of the critical state in melt processed $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ , thick films. <i>Journal of Applied Physics</i> , 1995, 77, 2607-2612.	1.1	4
189	Orientation of embedded $\text{Y}_2\text{BaCuO}_5$ particles within the $\text{YBa}_2\text{Cu}_3\text{O}_x$ matrix in melt-textured YBCO superconductors. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 1714-1719.	0.8	4
190	Effect of the size of GdBCO-Ag secondary magnet on the static forces performance of linear synchronous motors. <i>Superconductor Science and Technology</i> , 2014, 27, 115016.	1.8	4
191	A novel pre-sintering technique for the growth of Y-Ba-Cu-O superconducting single grains from raw metal oxides. <i>Superconductor Science and Technology</i> , 2017, 30, 095001.	1.8	4
192	Growth rate of YBCO-Ag superconducting single grains. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 279, 012027.	0.3	4
193	Demagnetization Study of Pulse-Field Magnetized Bulk Superconductors. <i>IEEE Transactions on Applied Superconductivity</i> , 2018, 28, 1-5.	1.1	4
194	Characterisation of the mechanical failure and fracture mechanisms of single grain Y-Ba-Cu-O bulk superconductors. <i>Superconductor Science and Technology</i> , 2020, 33, 015003.	1.8	4
195	The magnetic and levitation characteristics of single-grain YBaCuO and GdBaCuO-Ag bulk superconductors in high magnetic fields. <i>Journal of Applied Physics</i> , 2021, 130, .	1.1	4
196	Trapped Fields >1 T in a Bulk Superconducting Ring by Pulsed Field Magnetization. <i>IEEE Transactions on Applied Superconductivity</i> , 2022, 32, 1-5.	1.1	4
197	Solidification path of $\text{Y}_x\text{Nd}_{1-x}\text{Ba}_2\text{Cu}_3\text{O}_{6+\delta}$ superconducting composites. <i>Superconductor Science and Technology</i> , 2003, 16, 1286-1293.	1.8	3
198	EBSD characterisation of $\text{Y}_2\text{Ba}_4\text{Cu}_3\text{UO}_x$ phase in melt textured YBCO with addition of depleted uranium oxide. <i>Journal of Physics: Conference Series</i> , 2006, 43, 438-441.	0.3	3

#	ARTICLE	IF	CITATIONS
199	Studies of cracking behavior in melt-processed YBCO bulk superconductors. Journal of Physics: Conference Series, 2006, 43, 429-433.	0.3	3
200	Processing and properties of large grain $Y\text{-}Ba\text{-}Cu\text{-}O$ containing $Y_2Ba_4CuWO_y$ and Ag second phase inclusions. Journal of Applied Physics, 2009, 106, 063921.	1.1	3
201	THE GENERATION OF HIGH TRAPPED FIELDS IN BULK (RE)BCO HIGH TEMPERATURE SUPERCONDUCTORS. , 2010, , .		3
202	Effect of Pt and CeO <sub>2</sub> on Growth of Y-123/nano-Y <sub>2</sub> O <sub>3</sub> Single Grain Superconductors. IEEE Transactions on Applied Superconductivity, 2016, , 1-1.	1.1	3
203	Processing and applications of (RE)BCO and MgB <sub>2</sub> bulk superconductors: an introduction to the special issue. Superconductor Science and Technology, 2016, 29, 060302.	1.8	3
204	Possible antipolar pairing mechanism in high-temperature superconductors. Physical Review B, 1989, 40, 6564-6569.	1.1	2
205	SmBa <sub>2</sub> Cu <sub>3</sub> O <sub>6.5</sub> seed fabrication for seeded peritectic solidification of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> . Journal of Materials Science, 1998, 33, 133-137.	1.7	2
206	Reduction of porosity in RE <sub>1</sub> Ba <sub>2</sub> Cu <sub>3</sub> O <sub>y</sub> pseudo crystals. Physica C: Superconductivity and Its Applications, 2000, 341-348, 2473-2474.	0.6	2
207	Reversible magnetization of a strong-pinning superconductor. Physical Review B, 2004, 70, .	1.1	2
208	The Development of a Passive Magnetic Levitation System for Wind Tunnel Models. , 2006, , .		2
209	Single grain (LRE)-Ba-Cu-O superconductors fabricated by top seeded melt growth in air. Journal of Physics: Conference Series, 2006, 43, 421-424.	0.3	2
210	IMPROVED MAGNETIC FLUX PINNING IN BULK (RE)BCO SUPERCONDUCTORS. AIP Conference Proceedings, 2008, , .	0.3	2
211	Axial and radial ac susceptibility measurements on melt-processed single-grain $Y\text{-}Ba\text{-}Cu\text{-}O$ discs. Superconductor Science and Technology, 2010, 23, 045010.	1.8	2
212	Alternating-current susceptibility and critical-current density of melt-processed Gd $\text{-}Ba\text{-}Cu\text{-}O\text{-}Ag$ single grains: effect of intrinsic edge pinning. Superconductor Science and Technology, 2012, 25, 014010.	1.8	2
213	Microstructural evolution in multiseeded YBCO bulk samples grown by the TSMG process. Superconductor Science and Technology, 2016, 29, 115005.	1.8	2
214	Flux vortex dynamics in type-II superconductors. Superconductor Science and Technology, 2020, 33, 014003.	1.8	2
215	The Effect of Platinum Doping on the Spatial Distribution of Y <sub>2</sub> BaCuO <sub>5</sub> Inclusions in Large Grain Melt Processed YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> . , 1997, , 725-728.		2
216	Buffer-assisted Top-seeded Infiltration and Growth for Fabricating Dense, Single-grain (RE)-Ba-Cu-O Bulk Superconductors. IEEJ Transactions on Power and Energy, 2020, 140, 148-153.	0.1	2

#	ARTICLE	IF	CITATIONS
217	Dynamic guidance performance of GdBaCuO and YBaCuO bulk single grain superconductors under a varying external magnetic field. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 355001.	1.3	2
218	Experimental investigation of the $Y_{2-x}Ba_{x+1}Cu_{3-y}O_{7-y}$ surface free energy during peritectic solidification of YBCO. <i>Journal of Materials Research</i> , 1998, 13, 2035-2038.	1.2	1
219	High temperature phase relationships in (Y,Nd)-123 superconducting oxides: the $Y_2BaCuO_5$ - $Nd_4Ba_2Cu_2O_{10}$ - $Ba_3Cu_5O_x$ system. <i>Superconductor Science and Technology</i> , 2002, 15, 708-711.	1.8	1
220	Investigation of grain orientations of melt-textured HTSC with addition of uranium oxide, $Y_2O_3$ and $Y_2BaCuO_5$ . <i>Journal of Physics: Conference Series</i> , 2006, 43, 527-530.	0.3	1
221	Properties of Mg-doped Nd-Ba-Cu-O generic seed crystals for the top seeded melt growth of (RE)-Ba-Cu-O bulk superconductors. <i>Journal of Physics: Conference Series</i> , 2006, 43, 446-449.	0.3	1
222	Analysis of melt-textured YBCO with nanoscale inclusions. <i>Journal of Physics: Conference Series</i> , 2006, 43, 522-526.	0.3	1
223	Flux pinning and other related phenomena in type-II superconductors. <i>Superconductor Science and Technology</i> , 2007, 20, .	1.8	1
224	Characterization of nano-composite M-2411/Y-123 thin films by electron backscatter diffraction and in-field critical current measurements. <i>Journal of Physics: Conference Series</i> , 2010, 234, 012006.	0.3	1
225	Depth-dependent critical-current density of melt-processed Y-Ba-Cu-O discs determined by the third-harmonic technique: Surface barrier and intrinsic pinning. <i>Physica C: Superconductivity and Its Applications</i> , 2016, 527, 1-8.	0.6	1
226	Quantification of the level of samarium/barium substitution in the $Ag-Sm_{1+x}Ba_{2-x}Cu_3O_{7-\delta}$ system. <i>Journal of the European Ceramic Society</i> , 2018, 38, 5036-5042.	2.8	1
227	Comparison of the superconducting properties of Y-Ba-Cu-O and Y-Ba-Cu-O-Ag bulk superconductors. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 502, 012181.	0.3	1
228	High-Temperature Superconducting Materials. , 1991, , 417-430.		1
229	Preparation and Properties of Large Grain Peritectically Processed Nd-Ba-Cu-O. , 1999, , 721-724.		1
230	Reply to "Comment on "Processing and Microstructure of Single Grain U-Doped Y-Ba-Cu-O Superconductor"". <i>Superconductor Science and Technology</i> , 2002, 15, 1476-1477.	1.8	0
231	PASREG: The 7th International Workshop on the Processing and Applications of Superconducting (RE)BCO Large Grain Materials (Washington DC, 29-31 July 2010). <i>Superconductor Science and Technology</i> , 2010, 23, 120301-120301.	1.8	0
232	Focus section on superconducting power systems. <i>Superconductor Science and Technology</i> , 2012, 25, 010301-010301.	1.8	0
233	Numerical optimisation of mechanical ring reinforcement for bulk high-temperature superconductors. <i>Journal of Physics: Conference Series</i> , 2020, 1559, 012031.	0.3	0