

Ichiro Takeuchi

List of Publications by Year in descending order

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243
papers

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citations

22099

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all docs

247
docs citations

247
times ranked

12352
citing authors

#	ARTICLE	IF	CITATIONS
1	Exceptional power density and stability at intermediate temperatures in protonic ceramic fuel cells. Nature Energy, 2018, 3, 202-210.	19.8	587
2	Combinatorial search of thermoelastic shape-memory alloys with extremely small hysteresis width. Nature Materials, 2006, 5, 286-290.	13.3	551
3	Combinatorial solid-state chemistry of inorganic materials. Nature Materials, 2004, 3, 429-438.	13.3	420
4	Combinatorial and High-Throughput Screening of Materials Libraries: Review of State of the Art. ACS Combinatorial Science, 2011, 13, 579-633.	3.8	403
5	Universal Behavior and Electric-Field-Induced Structural Transition in Rare-Earth-Substituted BiFeO ₃ . Advanced Functional Materials, 2010, 20, 1108-1115.	7.8	364
6	Demonstration of high efficiency elastocaloric cooling with large ΔT using NiTi wires. Applied Physics Letters, 2012, 101, 073904.	1.5	350
7	Doping BiFeO ₃ : approaches and enhanced functionality. Physical Chemistry Chemical Physics, 2012, 14, 15953.	1.3	344
8	Identification of Quaternary Shape Memory Alloys with Near-Zero Thermal Hysteresis and Unprecedented Functional Stability. Advanced Functional Materials, 2010, 20, 1917-1923.	7.8	304
9	Identification of a Blue Photoluminescent Composite Material from a Combinatorial Library. Science, 1998, 279, 1712-1714.	6.0	290
10	Machine learning modeling of superconducting critical temperature. Npj Computational Materials, 2018, 4, .	3.5	274
11	Combinatorial discovery of a lead-free morphotropic phase boundary in a thin-film piezoelectric perovskite. Applied Physics Letters, 2008, 92, .	1.5	256
12	Identification of novel compositions of ferromagnetic shape-memory alloys using composition spreads. Nature Materials, 2003, 2, 180-184.	13.3	239
13	A review of elastocaloric cooling: Materials, cycles and system integrations. International Journal of Refrigeration, 2016, 64, 1-19.	1.8	237
14	The 2019 materials by design roadmap. Journal Physics D: Applied Physics, 2019, 52, 013001.	1.3	236
15	Fatigue-resistant high-performance elastocaloric materials made by additive manufacturing. Science, 2019, 366, 1116-1121.	6.0	229
16	Fulfilling the promise of the materials genome initiative with high-throughput experimental methodologies. Applied Physics Reviews, 2017, 4, .	5.5	224
17	Combinatorial materials synthesis. Materials Today, 2005, 8, 18-26.	8.3	222
18	On-the-fly machine-learning for high-throughput experiments: search for rare-earth-free permanent magnets. Scientific Reports, 2014, 4, 6367.	1.6	212

#	ARTICLE	IF	CITATIONS
19	Exploiting dimensionality and defect mitigation to create tunable microwave dielectrics. <i>Nature</i> , 2013, 502, 532-536.	13.7	204
20	Applications of high throughput (combinatorial) methodologies to electronic, magnetic, optical, and energy-related materials. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	202
21	Giant magnetostriction in annealed $\text{Co}_{1-x}\text{Fe}_x$ thin-films. <i>Nature Communications</i> , 2011, 2, 518.	5.8	188
22	Programmable phase-change metasurfaces on waveguides for multimode photonic convolutional neural network. <i>Nature Communications</i> , 2021, 12, 96.	5.8	186
23	Structural transitions and complex domain structures across a ferroelectric-to-antiferroelectric phase boundary in epitaxial Sm-doped BiFeO_3 films. <i>Physical Review B</i> , 2009, 80, .	1.1	170
24	On-the-fly closed-loop materials discovery via Bayesian active learning. <i>Nature Communications</i> , 2020, 11, 5966.	5.8	167
25	Room temperature ferromagnetic n-type semiconductor in $(\text{In}_{1-x}\text{Fe}_x)\text{O}_3$. <i>Applied Physics Letters</i> , 2005, 86, 052503.	1.5	156
26	Solid-state cooling with caloric materials. <i>Physics Today</i> , 2015, 68, 48-54.	0.3	149
27	Atomic-scale evolution of modulated phases at the ferroelectric-antiferroelectric morphotropic phase boundary controlled by flexoelectric interaction. <i>Nature Communications</i> , 2012, 3, 775.	5.8	145
28	Combinatorial synthesis and high throughput evaluation of ferroelectric/dielectric thin-film libraries for microwave applications. <i>Applied Physics Letters</i> , 1998, 72, 2185-2187.	1.5	142
29	Fabrication and characterization of all-thin-film magnetoelectric sensors. <i>Applied Physics Letters</i> , 2009, 94, .	1.5	142
30	Not-in-kind cooling technologies: A quantitative comparison of refrigerants and system performance. <i>International Journal of Refrigeration</i> , 2016, 62, 177-192.	1.8	136
31	Role of high-throughput characterization tools in combinatorial materials science. <i>Measurement Science and Technology</i> , 2005, 16, 1-4.	1.4	135
32	Bulk synthesis and high-temperature ferromagnetism of $(\text{In}_{1-x}\text{Fe}_x)\text{O}_3$ with Cu co-doping. <i>Applied Physics Letters</i> , 2005, 86, 042506.	1.5	132
33	Low-Loss Integrated Photonic Switch Using Subwavelength Patterned Phase Change Material. <i>ACS Photonics</i> , 2019, 6, 87-92.	3.2	124
34	High-throughput, combinatorial synthesis of multimetallic nanoclusters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 6316-6322.	3.3	119
35	Thermodynamics cycle analysis and numerical modeling of thermoelastic cooling systems. <i>International Journal of Refrigeration</i> , 2015, 56, 65-80.	1.8	112
36	A low-loss composition region identified from a thin-film composition spread of $(\text{Ba}_{1-x}\text{Sr}_x\text{Ca}_y)\text{TiO}_3$. <i>Applied Physics Letters</i> , 1999, 74, 1165-1167.	1.5	106

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37	Rapid structural mapping of ternary metallic alloy systems using the combinatorial approach and cluster analysis. Review of Scientific Instruments, 2007, 78, 072217.	0.6	99
38	Energy harvesting properties of all-thin-film multiferroic cantilevers. Applied Physics Letters, 2011, 99, .	1.5	94
39	Combinatorial Synthesis and Evaluation of Functional Inorganic Materials Using Thin-Film Techniques. MRS Bulletin, 2002, 27, 301-308.	1.7	89
40	Observation of the Josephson Effect in $Pb_{1-x}Ba_xKxFe_2$ Crystal Junctions. Physical Review Letters, 2009, 102, 147002.	2.9	89
41	Materials, physics and systems for multicaloric cooling. Nature Reviews Materials, 2022, 7, 633-652.	23.3	89
42	Design of a hydraulically driven compressive elastocaloric cooling system. Science and Technology for the Built Environment, 2016, 22, 500-506.	0.8	85
43	Exploration of artificial multiferroic thin-film heterostructures using composition spreads. Applied Physics Letters, 2004, 84, 3091-3093.	1.5	81
44	Rapid identification of structural phases in combinatorial thin-film libraries using x-ray diffraction and non-negative matrix factorization. Review of Scientific Instruments, 2009, 80, 103902.	0.6	81
45	Performance enhancement of a compressive thermoelastic cooling system using multi-objective optimization and novel designs. International Journal of Refrigeration, 2015, 57, 62-76.	1.8	79
46	Phase coexistence near a morphotropic phase boundary in Sm-doped BiFeO ₃ films. Applied Physics Letters, 2010, 97, .	1.5	77
47	Comparison of dissimilarity measures for cluster analysis of X-ray diffraction data from combinatorial libraries. Npj Computational Materials, 2017, 3, .	3.5	75
48	Machine-learning guided discovery of a new thermoelectric material. Scientific Reports, 2019, 9, 2751.	1.6	74
49	Nanoscale Structural and Chemical Properties of Antipolar Clusters in Sm-Doped BiFeO ₃ Ferroelectric Epitaxial Thin Films. Chemistry of Materials, 2010, 22, 2588-2596.	3.2	73
50	Microstructure-electromechanical property correlations in rare-earth-substituted BiFeO ₃ epitaxial thin films at morphotropic phase boundaries. Applied Physics Letters, 2010, 97, .	1.5	73
51	Combinatorial synthesis and evaluation of epitaxial ferroelectric device libraries. Applied Physics Letters, 1998, 73, 894-896.	1.5	71
52	Elastocaloric cooling of additive manufactured shape memory alloys with large latent heat. Journal Physics D: Applied Physics, 2017, 50, 404001.	1.3	70
53	A computational high-throughput search for new ternary superalloys. Acta Materialia, 2017, 122, 438-447.	3.8	70
54	Unsupervised phase mapping of X-ray diffraction data by nonnegative matrix factorization integrated with custom clustering. Npj Computational Materials, 2018, 4, .	3.5	70

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55	AFLOW-CHULL: Cloud-Oriented Platform for Autonomous Phase Stability Analysis. <i>Journal of Chemical Information and Modeling</i> , 2018, 58, 2477-2490.	2.5	69
56	Quantitative scanning evanescent microwave microscopy and its applications in characterization of functional materials libraries. <i>Measurement Science and Technology</i> , 2005, 16, 248-260.	1.4	67
57	Role of diffused Co atoms in improving effective exchange coupling in Sm ²⁺ /Co ²⁺ -Fe spring magnets. <i>Physical Review B</i> , 2007, 75, .	1.1	67
58	Chemical Substitution-Induced Ferroelectric Polarization Rotation in BiFeO ₃ . <i>Advanced Materials</i> , 2011, 23, 1765-1769.	11.1	65
59	Epitaxial LiCoO ₂ Films as a Model System for Fundamental Electrochemical Studies of Positive Electrodes. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 7901-7911.	4.0	64
60	High-throughput determination of structural phase diagram and constituent phases using GRENDL. <i>Nanotechnology</i> , 2015, 26, 444002.	1.3	60
61	MEMS tools for combinatorial materials processing and high-throughput characterization. <i>Measurement Science and Technology</i> , 2005, 16, 111-118.	1.4	59
62	Labile Ferroelastic Nanodomains in Bilayered Ferroelectric Thin Films. <i>Advanced Materials</i> , 2009, 21, 3497-3502.	11.1	58
63	Low temperature scanning-tip microwave near-field microscopy of YBa ₂ Cu ₃ O _{7-x} films. <i>Applied Physics Letters</i> , 1997, 71, 2026-2028.	1.5	57
64	Optimization of PbTiO ₃ seed layers and Pt metallization for PZT-based piezoMEMS actuators. <i>Journal of Materials Research</i> , 2013, 28, 1920-1931.	1.2	55
65	Overcoming fatigue through compression for advanced elastocaloric cooling. <i>MRS Bulletin</i> , 2018, 43, 285-290.	1.7	55
66	Anomalous magnetoresistance in the spinel superconductor LiTi ₂ O ₄ . <i>Nature Communications</i> , 2015, 6, 7183.	5.8	54
67	Identification of advanced spin-driven thermoelectric materials via interpretable machine learning. <i>Npj Computational Materials</i> , 2019, 5, .	3.5	51
68	Elastocaloric effect in CuAlZn and CuAlMn shape memory alloys under compression. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016, 374, 20150309.	1.6	50
69	Stability of the oxygen vacancy induced conductivity in BaSnO ₃ thin films on SrTiO ₃ . <i>Applied Physics Letters</i> , 2017, 111, .	1.5	50
70	Composition- and pressure-induced ferroelectric to antiferroelectric phase transitions in Sm-doped BiFeO ₃ system. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	49
71	Effect of substrate orientation on lattice relaxation of epitaxial BiFeO ₃ thin films. <i>Journal of Applied Physics</i> , 2010, 108, .	1.1	48
72	Composition and temperature-induced structural evolution in La, Sm, and Dy substituted BiFeO ₃ epitaxial thin films at morphotropic phase boundaries. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	48

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73	Ultra-low-field magneto-elastocaloric cooling in a multiferroic composite device. Nature Communications, 2018, 9, 4075.	5.8	48
74	Quantitative microwave evanescent microscopy of dielectric thin films using a recursive image charge approach. Applied Physics Letters, 2004, 84, 4647-4649.	1.5	47
75	Atomic resolution imaging at 2.5 GHz using near-field microwave microscopy. Applied Physics Letters, 2010, 97, .	1.5	47
76	Ultrafast Terahertz Gating of the Polarization and Giant Nonlinear Optical Response in BiFeO ₃ Thin Films. Advanced Materials, 2015, 27, 6371-6375.	11.1	47
77	Data management and visualization of x-ray diffraction spectra from thin film ternary composition spreads. Review of Scientific Instruments, 2005, 76, 062223.	0.6	44
78	Combinatorial search of structural transitions: Systematic investigation of morphotropic phase boundaries in chemically substituted BiFeO ₃ . Journal of Materials Research, 2012, 27, 2691-2704.	1.2	43
79	The Effects of Multiphase Formation on Strain Relaxation and Magnetization in Multiferroic BiFeO ₃ Thin Films. Advanced Functional Materials, 2007, 17, 2594-2599.	7.8	42
80	Anomalous ferromagnetism in TbMnO ₃ thin films. Journal of Applied Physics, 2009, 105, .	1.1	42
81	Neutron Diffraction Investigations of Magnetism in BiFeO ₃ Epitaxial Films. Advanced Functional Materials, 2011, 21, 1567-1574.	7.8	42
82	Robust topological surface state in Kondo insulator SmB ₆ thin films. Applied Physics Letters, 2014, 105, 222403.	1.5	42
83	Scaling of the strange-metal scattering in unconventional superconductors. Nature, 2022, 602, 431-436.	13.7	42
84	Combinatorial exploration of rare-earth-free permanent magnets: Magnetic and microstructural properties of Fe-Co-W thin films. Applied Physics Letters, 2013, 102, .	1.5	39
85	Combinatorial investigation of magnetostriction in Fe ²⁺ Ga and Fe ³⁺ Ga ²⁺ Al. Applied Physics Letters, 2008, 93, .	1.5	38
86	Perfect Andreev reflection due to the Klein paradox in a topological superconducting state. Nature, 2019, 570, 344-348.	13.7	38
87	Tuning the hysteresis of a metal-insulator transition via lattice compatibility. Nature Communications, 2020, 11, 3539.	5.8	38
88	Microscopy Study of Structural Evolution in Epitaxial LiCoO ₂ Positive Electrode Films during Electrochemical Cycling. ACS Applied Materials & Interfaces, 2016, 8, 6727-6735.	4.0	37
89	Dependence of exchange coupling interaction on micromagnetic constants in hard/soft magnetic bilayer systems. Physical Review B, 2007, 75, .	1.1	36
90	A Compact Variable-Temperature Broadband Series-Resistor Calibration. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 188-195.	2.9	35

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91	Josephson effect between electron-doped and hole-doped iron pnictide single crystals. Applied Physics Letters, 2009, 95, 062510.	1.5	34
92	Dissociation and evolution of threading dislocations in epitaxial Ba _{0.3} Sr _{0.7} TiO ₃ thin films grown on (001) LaAlO ₃ . Journal of Applied Physics, 2003, 93, 512-521.	1.1	33
93	Electric-Field Induced Reversible Switching of the Magnetic Easy Axis in Co/BiFeO ₃ on SrTiO ₃ . Nano Letters, 2017, 17, 2825-2832.	4.5	33
94	Superconducting Y ₁ Ba ₂ Cu ₃ O _{7-x} /Nd _{1.85} Ce _{0.15} CuO _{4-y} bilayer thin films. Applied Physics Letters, 1993, 62, 2425-2427.	1.5	32
95	Fabrication of organic-inorganic perovskite thin films for planar solar cells via pulsed laser deposition. AIP Advances, 2016, 6, 015001.	0.6	32
96	Structural study of epitaxial LiCoO ₂ films grown by pulsed laser deposition on single crystal SrTiO ₃ substrates. Thin Solid Films, 2016, 612, 472-482.	0.8	31
97	Hypothesis Learning in Automated Experiment: Application to Combinatorial Materials Libraries. Advanced Materials, 2022, 34, e2201345.	11.1	30
98	Microwave-frequency loss and dispersion in ferroelectric Ba _{0.3} Sr _{0.7} TiO ₃ thin films. Applied Physics Letters, 2005, 87, 082908.	1.5	29
99	Electric-field-controlled antiferromagnetic domains in epitaxial BiFeO ₃ thin films probed by neutron diffraction. Physical Review B, 2013, 87, .	1.1	29
100	Artificial intelligence for search and discovery of quantum materials. Communications Materials, 2021, 2, .	2.9	29
101	Accurate prediction of work and coefficient of performance of elastocaloric materials with phase transformation kinetics. Science and Technology for the Built Environment, 2018, 24, 673-684.	0.8	28
102	Broadband dielectric spectroscopy of Ruddlesden-Popper Sr _{n+1} Ti _n O _{3n+1} (n=1,2,3) thin films. Applied Physics Letters, 2009, 94, 042908.	1.5	27
103	Systematic Band Gap Tuning of BaSnO ₃ via Chemical Substitutions: The Role of Clustering in Mixed-Valence Perovskites. Chemistry of Materials, 2017, 29, 9378-9385.	3.2	27
104	Combinatorial Investigation of Spintronic Materials. MRS Bulletin, 2003, 28, 734-739.	1.7	26
105	Combinatorial Investigation of Ferromagnetic Shape-Memory Alloys in the Ni-Mn-Al Ternary System Using a Composition Spread Technique. Materials Transactions, 2004, 45, 173-177.	0.4	26
106	Multiferroic Operation of Dynamic Memory Based on Heterostructured Cantilevers. Advanced Materials, 2015, 27, 202-206.	11.1	26
107	The Different Roles of Entropy and Solubility in High Entropy Alloy Stability. ACS Combinatorial Science, 2016, 18, 596-603.	3.8	26
108	CRYSPNet: Crystal structure predictions via neural networks. Physical Review Materials, 2020, 4, .	0.9	26

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109	Oxygen pressure dependence of the grain size and surface morphology in YBa ₂ Cu ₃ O _{7-x} films. Applied Physics Letters, 1995, 66, 1536-1538.	1.5	25
110	Ferromagnetic resonance in Ni _{1-x} Mn _x Ga films. Applied Physics Letters, 2002, 81, 1279-1281.	1.5	25
111	Microstructural study of epitaxial Zn _{1-x} Mg _x O composition spreads. Journal of Applied Physics, 2005, 98, 083526.	1.1	25
112	On-the-fly autonomous control of neutron diffraction via physics-informed Bayesian active learning. Applied Physics Reviews, 2022, 9, 021408.	5.5	25
113	Ferroelectric properties of multiphase Bi ₂ Fe ₂ O thin films. Solid State Ionics, 2007, 178, 1257-1261.	1.3	24
114	Harnessing optoelectronic noises in a photonic generative network. Science Advances, 2022, 8, eabm2956.	4.7	24
115	Oxygen-doped Mott-Hubbard cuprate superconductor La _{1.85} Y _{0.15} CuO ₄ from transport measurements. Physical Review B, 2007, 75, .	1.1	23
116	Orientation and magnetic properties of FePt and CoPt films grown on MgO(110) single-crystal substrate by electron-beam coevaporation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2007, 142, 139-143.	1.7	23
117	Interphase exchange coupling in Fe ₂ SmCo bilayers with gradient Fe thickness. Journal of Applied Physics, 2005, 98, 063908.	1.1	22
118	Utilizing Pulsed Laser Deposition Lateral Inhomogeneity as a Tool in Combinatorial Material Science. ACS Combinatorial Science, 2015, 17, 209-216.	3.8	22
119	Probing the reaction pathway in (La _{0.8} Sr _{0.2}) _{0.95} MnO _{3+δ} using libraries of thin film microelectrodes. Journal of Materials Chemistry A, 2015, 3, 19330-19345.	5.2	22
120	Combinatorial study of Fe-Co-V hard magnetic thin films. Science and Technology of Advanced Materials, 2017, 18, 231-238.	2.8	22
121	Evidence of a universal and isotropic χ in 122-type iron pnictide superconductors over a wide doping range. Physical Review B, 2010, 82, .	4.1	21
122	Local control of magnetic anisotropy in transcritical permalloy thin films using ferroelectric BaTiO ₃ domains. Applied Physics Letters, 2014, 105, 212905.	1.5	21
123	Effect of oxygen pressure on structure and ionic conductivity of epitaxial Li _{0.33} La _{0.55} TiO ₃ solid electrolyte thin films produced by pulsed laser deposition. RSC Advances, 2016, 6, 61974-61983.	1.7	21
124	Evolution of electronic states in n-type copper oxide superconductor via electric double layer gating. Scientific Reports, 2016, 6, 26642.	1.6	21
125	Causal analysis of competing atomistic mechanisms in ferroelectric materials from high-resolution scanning transmission electron microscopy data. Npj Computational Materials, 2020, 6, .	3.5	21
126	High-resolution identification of $\frac{1}{2}$ stacking faults in epitaxial Ba _{0.3} Sr _{0.7} TiO ₃ thin films. Philosophical Magazine, 2003, 83, 1565-1595.	0.7	20

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127	Combinatorial Experimentation and Materials Informatics. MRS Bulletin, 2006, 31, 999-1003.	1.7	20
128	Combinatorial search of superconductivity in Fe-B composition spreads. APL Materials, 2013, 1, .	2.2	20
129	Microwave frequency tuning and harmonic generation in ferroelectric thin film transmission lines. Applied Physics Letters, 2002, 81, 718-720.	1.5	19
130	High-throughput screening of shape memory alloy thin-film spreads using nanoindentation. Journal of Applied Physics, 2008, 104, .	1.1	19
131	Active microcantilevers based on piezoresistive ferromagnetic thin films. Applied Physics Letters, 2011, 98, .	1.5	19
132	Interface control of a morphotropic phase boundary in epitaxial samarium modified bismuth ferrite superlattices. Physical Review B, 2014, 90, .	1.1	19
133	Simultaneous imaging of the ferromagnetic and ferroelectric structure in multiferroic heterostructures. APL Materials, 2014, 2, 076109.	2.2	19
134	Observation of the Superconducting Proximity Effect in the Surface State of SmB ₆ Thin Films. Physical Review X, 2016, 6, .	2.8	19
135	Assessing Substitution Effects on Surface Chemistry by in Situ Ambient Pressure X-ray Photoelectron Spectroscopy on Perovskite Thin Films, BaCe _{1-x} Zr _{0.9x} Y _{0.1} O _{2.95} (x = 0); TJ ETQq1 1 0.784314 rg	4.9	19
136	Recent advances in high-throughput superconductivity research. Superconductor Science and Technology, 2019, 32, 123001.	1.8	19
137	Combinatorial Synthesis and High-Throughput Characterization of Microstructure and Phase Transformation in NiTiCuV Quaternary Thin-Film Library. Engineering, 2020, 6, 637-643.	3.2	19
138	Enhanced magnetoresistance in YBa ₂ Cu ₃ O ₇ /Nd _{0.7} Sr _{0.3} MnO ₃ heterostructures using magnetic flux focusing. Applied Physics Letters, 1996, 69, 3432-3434.	1.5	17
139	Exploring physics of ferroelectric domain walls via Bayesian analysis of atomically resolved STEM data. Nature Communications, 2020, 11, 6361.	5.8	17
140	COMBINATORIAL INVESTIGATION OF STRUCTURAL AND FERROELECTRIC PROPERTIES OF A- AND B-SITE CO-DOPED BiFeO ₃ THIN FILMS. Integrated Ferroelectrics, 2010, 111, 116-124.	0.3	16
141	High-throughput screening of magnetic properties of quenched metallic-alloy thin-film composition spreads. Applied Surface Science, 2007, 254, 734-737.	3.1	15
142	Change in the magnetic structure of (Bi,Sm)FeO ₃ thin films at the morphotropic phase boundary probed by neutron diffraction. APL Materials, 2014, 2, .	2.2	15
143	Large energy product enhancement in perpendicularly coupled MnBi/CoFe magnetic bilayers. Physical Review B, 2016, 94, .	1.1	15
144	Anisotropic self-field effect in a-axis YBa ₂ Cu ₃ O _{7-x} /Ag/PbIn Josephson junctions. Applied Physics Letters, 1996, 68, 1564-1566.	1.5	14

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145	An infrared imaging method for high-throughput combinatorial investigation of hydrogenation-dehydrogenation and new phase formation of thin films. Review of Scientific Instruments, 2009, 80, 073707.	0.6	14
146	First principles thermodynamical modeling of the binodal and spinodal curves in lead chalcogenides. Physical Chemistry Chemical Physics, 2016, 18, 5005-5011.	1.3	13
147	Chemical pressure effect in Sm and La substituted ferroelectric BiFeO ₃ thin films: Insights from infrared spectroscopy. Journal of Applied Physics, 2017, 121, 144103.	1.1	13
148	Focus on materials genome and informatics. Science and Technology of Advanced Materials, 2017, 18, 1-2.	2.8	13
149	Ambient effect on the Curie temperatures and magnetic domains in metallic two-dimensional magnets. Npj 2D Materials and Applications, 2021, 5, .	3.9	13
150	Observation of Josephson effect in YBa ₂ Cu ₃ O _{7-x} /Nd _{1.85} Ce _{0.15} CuO _{4-y} bilayer junctions. Applied Physics Letters, 1995, 67, 2872-2874.	1.5	12
151	Investigation of machine compliance uniformity for nanoindentation screening of wafer-supported libraries. Review of Scientific Instruments, 2005, 76, 062209.	0.6	12
152	Broadband Characterization of Multilayer Dielectric Thin-Films. IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium, 2007, . .	0.0	12
153	Magnetotransport in nanocrystalline SmB ₆ thin films. AIP Advances, 2015, 5, .	0.6	12
154	Unexpected trends in the enhanced Ce ³⁺ surface concentration in ceria-zirconia catalyst materials. Journal of Materials Chemistry A, 2020, 8, 9850-9858.	5.2	12
155	Probing the order parameter of superconducting LiFeAs using Pb/LiFeAs and Au/LiFeAs point-contact spectroscopy. Physical Review B, 2012, 85, .	1.1	11
156	An Inter-Laboratory Study of Zn-Sn-Ti-O Thin Films using High-Throughput Experimental Methods. ACS Combinatorial Science, 2019, 21, 350-361.	3.8	11
157	Low temperature optical response of a single grain boundary in superconducting YBa ₂ Cu ₃ O _{7-x} thin film. Applied Physics Letters, 1993, 63, 2279-2281.	1.5	10
158	Fabrication of all in-plane oriented a-axis YBa ₂ Cu ₃ O _{7-x} /insulator/ YBa ₂ Cu ₃ O _{7-x} heterostructures. Applied Physics Letters, 1995, 66, 1824-1826.	1.5	10
159	Electric field effect on ultrathin YBa ₂ Cu ₃ O _{7-x} grain boundary Josephson junctions. Applied Physics Letters, 1995, 67, 1477-1479.	1.5	10
160	Rapid constructing magnetic phase diagrams by magneto-optical imaging of composition spread films. Journal of Materials Research, 2004, 19, 2546-2548.	1.2	10
161	Transmission electron microscopy study on Co/Fe interdiffusion in SmCo ₅ /Fe and Sm ₂ Co ₇ /Fe/Sm ₂ Co ₇ thin films. Journal of Applied Physics, 2011, 110, 053914.	1.1	10
162	High-throughput research on superconductivity. Chinese Physics B, 2018, 27, 127402.	0.7	10

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163	Combinatorial Exploration and Mapping of Phase Transformation in a Ni-Ti-Co Thin Film Library. ACS Combinatorial Science, 2020, 22, 641-648.	3.8	10
164	Mechanisms of optical response in superconducting YBa2Cu3O7-x thin films and grain boundary weak links. Journal of Applied Physics, 1994, 76, 5829-5838.	1.1	9
165	Geometry Dependence of Magnetization Reversal in Nanocomposite Alloys. Jom, 2014, 66, 1144-1150.	0.9	9
166	Thermoelectric properties of bismuth-substituted calcium manganite Ca _{1-x} Bi _x MnO ₃ prepared via the electrostatic spray deposition method. Journal of the Ceramic Society of Japan, 2017, 125, 308-312.	0.5	9
167	The AFLOW Fleet for Materials Discovery. , 2018, , 1-28.		9
168	High-throughput characterization of shape memory thin films using automated temperature-dependent resistance measurements. Materials Research Society Symposia Proceedings, 2005, 894, 1.	0.1	8
169	Determination of Work Functions in the Al _x N _y /HfO ₂ Advanced Gate Stack Using Combinatorial Methodology. IEEE Transactions on Electron Devices, 2008, 55, 2641-2647.	1.6	8
170	Dynamic state switching in nonlinear multiferroic cantilevers. Applied Physics Letters, 2012, 101, 043506.	1.5	8
171	Colossal magnetoelectric effect induced by parametric amplification. Applied Physics Letters, 2015, 107, .	1.5	8
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