Venkatraman Gopalan

List of Publications by Year
in descending order

208	11,192	34016	32761
papers	citations	52 h-index	100 g-index

213	213	213	10992
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhancement of Ferroelectricity in Strained BaTiO3 Thin Films. Science, 2004, 306, 1005-1009.	6.0	1,676
2	A strong ferroelectric ferromagnet created by means of spinâ€“lattice coupling. Nature, 2010, 466, 954-958.	13.7	668
3	Elastic strain engineering of ferroic oxides. MRS Bulletin, 2014, 39, 118-130.	1.7	379
4	Correlated metals as transparent conductors. Nature Materials, 2016, 15, 204-210.	13.3	291
5	Polar metals by geometric design. Nature, 2016, 533, 68-72.	13.7	262
6	Probing Ferroelectrics Using Optical Second Harmonic Generation. Journal of the American Ceramic Society, 2011, 94, 2699-2727.	1.9	244
7	Ferroelectricity in Strain-Free<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>SrTiO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>Thin Films. Physical Review Letters, 2010, 104, 197601.	2.9	233
8	Direct Observation of Pinning and Bowing of a Single Ferroelectric Domain Wall. Physical Review Letters, 1999, 82, 4106-4109.	2.9	231
9	Defectâ€“Domain Wall Interactions in Trigonal Ferroelectrics. Annual Review of Materials Research, 2007, 37, 449-489.	4.3	229
10	Static conductivity of charged domain walls in uniaxial ferroelectric semiconductors. Physical Review B, 2011, 83, .	1.1	214
11	Linear and nonlinear optical properties of BiFeO3. Applied Physics Letters, 2008, 92, .	1.5	213
12	Exploiting dimensionality and defect mitigation to create tunable microwave dielectrics. Nature, 2013, 502, 532-536.	13.7	204
13	Phase transitions and domain structures in strained pseudocubic (100)SrTiO3thin films. Physical Review B, 2006, 73, .	1.1	160
14	Synchronized charge oscillations in correlated electron systems. Scientific Reports, 2014, 4, .	1.6	155
15	Optical properties of quasi-tetragonal BiFeO3 thin films. Applied Physics Letters, 2010, 96, .	1.5	153
16	Optical properties and magnetochromism in multiferroic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>BiFeO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:m Physical Review B, 2009, 79, .	1.1	149
17	Mixed Bloch-NÃ©el-Ising character of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>180</mml:mn><mml:mo>Â°</mml:mo></mml:mrow></mml:math>ferroelectric domain walls. Physical Review B, 2009, 80, .	1.1	146
18	Thermotropic phase boundaries in classic ferroelectrics. Nature Communications, 2014, 5, 3172.	5.8	123

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19	Coercive fields in ferroelectrics: A case study in lithium niobate and lithium tantalate. Applied Physics Letters, 2002, 80, 2740-2742.	1.5	122
20	Strain-tunable photonic band gap crystals. Applied Physics Letters, 2001, 78, 3015-3017.	1.5	118
21	A labile hydride strategy for the synthesis of heavily nitridized BaTiO3. Nature Chemistry, 2015, 7, 1017-1023.	6.6	118
22	Two-phonon coupling to the antiferromagnetic phase transition in multiferroic BiFeO3. Applied Physics Letters, 2008, 92, .	1.5	116
23	Stability of intrinsic defects and defect clusters in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Li</mml:mi><mml:mi mathvariant="normal">Nb</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>from density functional theory calculations. Physical Review B, 2008, 78, .	1.1	109
24	c-axis oriented epitaxial BaTiO3 films on (001) Si. Journal of Applied Physics, 2006, 100, 024108.	1.1	106
25	Optical creation of a supercrystal with three-dimensional nanoscale periodicity. Nature Materials, 2019, 18, 377-383.	13.3	105
26	Flexoelectricity and ferroelectric domain wall structures: Phase-field modeling and DFT calculations. Physical Review B, 2014, 89, .	1.1	101
27	Interfacial polarization and pyroelectricity in antiferrodistortive structures induced by a flexoelectric effect and rotostriction. Physical Review B, 2012, 85, .	1.1	100
28	Bismuth manganite: A multiferroic with a large nonlinear optical response. Physical Review B, 2004, 69, .	1.1	97
29	Ferroelectric Sr₃Zr₂O₇: Competition between Hybrid Improper Ferroelectric and Antiferroelectric Mechanisms. Advanced Functional Materials, 2018, 28, 1801856.	7.8	89
30	Rotation-reversal symmetries in crystals and handed structures. Nature Materials, 2011, 10, 376-381.	13.3	88
31	Terahertz Emission from Hybrid Perovskites Driven by Ultrafast Charge Separation and Strong Electronâ€“Phonon Coupling. Advanced Materials, 2018, 30, 1704737.	11.1	86
32	Magnon sidebands and spin-charge coupling in bismuth ferrite probed by nonlinear optical spectroscopy. Physical Review B, 2009, 79, .	1.1	82
33	Stripe domain structure in epitaxial (001) BiFeO3 thin films on orthorhombic TbScO3 substrate. Applied Physics Letters, 2009, 94, .	1.5	76
34	Conductivity of twin-domain-wall/surface junctions in ferroelastics: Interplay of deformation potential, octahedral rotations, improper ferroelectricity, and flexoelectric coupling. Physical Review B, 2012, 86, .	1.1	74
35	Hybrid Improper Ferroelectricity in (Sr,Ca)₃Sn₂O₇ and Beyond: Universal Relationship between Ferroelectric Transition Temperature and Tolerance Factor in n = 2 Ruddlesdenâ€“Popper Phases. Journal of the American Chemical Society, 2018, 140, 15690-15700.	6.6	74
36	Tunable band gap in Bi(Fe1â^'xMnx)O3 films. Applied Physics Letters, 2010, 96, .	1.5	70

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37	Domain structure and phase transitions in epitaxial KNbO3 thin films studied by in situ second harmonic generation measurements. Applied Physics Letters, 1996, 68, 1323-1325.	1.5	67
38	Long-range strains and the effects of applied field at 180Â° ferroelectric domain walls in lithium niobate. Physical Review B, 2004, 69, .	1.1	67
39	Subterahertz collective dynamics of polar vortices. Nature, 2021, 592, 376-380.	13.7	66
40	Electro-optic control of the superprism effect in photonic crystals. Applied Physics Letters, 2003, 82, 3176-3178.	1.5	65
41	Correlated polarization switching in the proximity of a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>180</mml:mn><mml:mo>Â°</mml:mo></mml:mrow></mml:math>domain wall. Physical Review B, 2010, 82, .	1.1	65
42	Thermodynamics of nanodomain formation and breakdown in scanning probe microscopy: Landau-Ginzburg-Devonshire approach. Physical Review B, 2009, 80, .	1.1	63
43	Thermodynamic potential and phase diagram for multiferroic bismuth ferrite (BiFeO 3). Npj Computational Materials, 2017, 3, .	3.5	62
44	Observation of Quasi-Two-Dimensional Polar Domains and Ferroelastic Switching in a Metal, Ca₃Ru₂O₇. Nano Letters, 2018, 18, 3088-3095.	4.5	62
45	Artificial two-dimensional polar metal at room temperature. Nature Communications, 2018, 9, 1547.	5.8	61
46	Inversion Symmetry Breaking by Oxygen Octahedral Rotations in the Ruddlesden-Popper<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Na</mml:mi><mml:mi>R</mml:mi><mml:msub><mml:mrow><mml:mi>TiO</mml:mi></mml:mr Physical Review Letters, 2014, 112, 187602.	2.9	60
47	Surface effect on domain wall width in ferroelectrics. Journal of Applied Physics, 2009, 106, .	1.1	59
48	Interfacial Octahedral Rotation Mismatch Control of the Symmetry and Properties of SrRuO₃. ACS Applied Materials & Interfaces, 2016, 8, 14871-14878.	4.0	59
49	Co-casting and optical characteristics of transparent segmented composite Er:YAG laser ceramics. Journal of Materials Research, 2010, 25, 476-483.	1.2	58
50	Confined High-Pressure Chemical Deposition of Hydrogenated Amorphous Silicon. Journal of the American Chemical Society, 2012, 134, 19-22.	6.6	56
51	Fast Magnetic Domain-Wall Motion in a Ring-Shaped Nanowire Driven by a Voltage. Nano Letters, 2016, 16, 2341-2348.	4.5	55
52	The influence of 180Â° ferroelectric domain wall width on the threshold field for wall motion. Journal of Applied Physics, 2008, 104, 084107.	1.1	53
53	Mn₂FeWO₆: A New Ni₃TeO₆â€Type Polar and Magnetic Oxide. Advanced Materials, 2015, 27, 2177-2181.	11.1	53
54	Strain-induced ferroelectricity and spin-lattice coupling in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>SrMn</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> thin films. Physical Review B, 2018, 97, .	1.1	51

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55	SrNbO3 as a transparent conductor in the visible and ultraviolet spectra. Communications Physics, 2020, 3, .	2.0	48
56	Phenomenological thermodynamic potential for CaTiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>single crystals. Physical Review B, 2012, 85, .	1.1	46
57	Probing domain microstructure in ferroelectric Bi4Ti3O12 thin films by optical second harmonic generation. Journal of Applied Physics, 2001, 89, 1387-1392.	1.1	45
58	Structure and energetics of ferroelectric domain walls in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>LiNbO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:r atomic-level simulations. Physical Review B, 2010, 82, .	1.1	45
59	Continuously Tuning Epitaxial Strains by Thermal Mismatch. ACS Nano, 2018, 12, 1306-1312.	7.3	44
60	Nanoscale polarization profile across a 180Â° ferroelectric domain wall extracted by quantitative piezoelectric force microscopy. Journal of Applied Physics, 2008, 104, 074110.	1.1	43
61	Interaction of a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>180</mml:mn><mml:mo>Â°</mml:mo></mml:mrow></mml:math>ferroelectric domain wall with a biased scanning probe microscopy tip: Effective wall geometry and thermodynamics in Ginzburg-Landau-Devonshire theory. Physical Review B, 2008, 78, .	1.1	43
62	Spin-charge-lattice coupling through resonant multimagnon excitations in multiferroic BiFeO3. Applied Physics Letters, 2009, 94, 161905.	1.5	43
63	Structural and electronic recovery pathways of a photoexcited ultrathin VO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>film. Physical Review B, 2013, 88, .	1.1	43
64	Imprinting of Local Metallic States into VO₂ with Ultraviolet Light. Advanced Functional Materials, 2016, 26, 6612-6618.	7.8	43
65	Coupled displacive and orderâ€“disorder dynamics in LiNbO3 by molecular-dynamics simulation. Applied Physics Letters, 2004, 84, 1916-1918.	1.5	42
66	Probing mixed tetragonal/rhombohedral-like monoclinic phases in strained bismuth ferrite films by optical second harmonic generation. Applied Physics Letters, 2010, 97, 112903.	1.5	41
67	Stability and charge transfer levels of extrinsic defects in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>LiNbO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:mr Physical Review B, 2010, 82, .	1.1	41
68	Mid-infrared transmission properties of amorphous germanium optical fibers. Applied Physics Letters, 2010, 97, .	1.5	40
69	Magnetostriction-polarization coupling in multiferroic Mn2MnWO6. Nature Communications, 2017, 8, 2037.	5.8	40
70	Effect of stoichiometry on the dielectric properties and soft mode behavior of strained epitaxial SrTiO3 thin films on DyScO3 substrates. Applied Physics Letters, 2013, 102, .	1.5	39
71	Light-Activated Gigahertz Ferroelectric Domain Dynamics. Physical Review Letters, 2018, 120, 096101.	2.9	39
72	A modified Landauâ€“Devonshire thermodynamic potential for strontium titanate. Applied Physics Letters, 2010, 96, .	1.5	38

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73	Surface polar states and pyroelectricity in ferroelastics induced by flexo-roto field. Applied Physics Letters, 2012, 100, .	1.5	38
74	Quantification of octahedral rotations in strained LaAlO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>films via synchrotron x-ray diffraction. Physical Review B, 2013, 88, .	1.1	38
75	Electric field induced domain rearrangement in potassium niobate thin films studied byin situsecond harmonic generation measurements. Journal of Applied Physics, 1997, 81, 865-875.	1.1	37
76	Universal emergence of spatially modulated structures induced by flexoantiferrodistortive coupling in multiferroics. Physical Review B, 2013, 88, .	1.1	37
77	Polar and magnetic properties ofPbVO3thin films. Physical Review B, 2007, 75, .	1.1	36
78	Structure and energetics of Er defects in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>LiNbO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:r first-principles and thermodynamic calculations. Physical Review B, 2009, 80, .	1.1	35
79	Singleâ€Crystal Germanium Core Optoelectronic Fibers. Advanced Optical Materials, 2017, 5, 1600592.	3.6	35
80	Polar Oxides without Inversion Symmetry through Vacancy and Chemical Order. Journal of the American Chemical Society, 2017, 139, 2833-2841.	6.6	34
81	Chirality-Dependent Second Harmonic Generation of MoS₂ Nanoscroll with Enhanced Efficiency. ACS Nano, 2020, 14, 13333-13342.	7.3	34
82	Templated Chemically Deposited Semiconductor Optical Fiber Materials. Annual Review of Materials Research, 2013, 43, 527-557.	4.3	33
83	Emergent Noncentrosymmetry and Piezoelectricity Driven by Oxygen Octahedral Rotations in n = 2 Dionâ€“Jacobson Phase Layer Perovskites. Advanced Functional Materials, 2016, 26, 1930-1937.	7.8	33
84	Large nonlinear optical coefficients in pseudo-tetragonal BiFeO3 thin films. Applied Physics Letters, 2013, 103, .	1.5	32
85	Three-dimensional atomic scale electron density reconstruction of octahedral tilt epitaxy in functional perovskites. Nature Communications, 2018, 9, 5220.	5.8	32
86	Spin-valley locking and bulk quantum Hall effect in a noncentrosymmetric Dirac semimetal BaMnSb2. Nature Communications, 2021, 12, 4062.	5.8	32
87	Nanoscale structural evolution of electrically driven insulator to metal transition in vanadium dioxide. Applied Physics Letters, 2013, 103, .	1.5	31
88	Unleashing Strain Induced Ferroelectricity in Complex Oxide Thin Films via Precise Stoichiometry Control. Advanced Functional Materials, 2016, 26, 7271-7279.	7.8	30
89	Multidimensional thermal analysis of an ultrawide bandgap AlGaN channel high electron mobility transistor. Applied Physics Letters, 2019, 115, .	1.5	30
90	Designing Optimal Perovskite Structure for High Ionic Conduction. Advanced Materials, 2020, 32, e1905178.	11.1	30

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91	Evidence for a Magnetic-Field-Induced Ideal Type-II Weyl State in Antiferromagnetic Topological Insulator <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Mn</mml:mi><mml:msub><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:msub><mml:mrow><mml:mi>Bi</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn><mml:mn	2.8	30
92	Structure-Optical Property Correlation of Epitaxial Potassium Niobate Thin Films Deposited on Magnesium Oxide (100) Substrates Using a Strontium Titanate Transition Layer. Journal of the American Ceramic Society, 1995, 78, 1825-1833.	1.9	29
93	Improper Inversion Symmetry Breaking and Piezoelectricity through Oxygen Octahedral Rotations in Layered Perovskite Family, LiRTiO₄ (R = Rare Earths). Advanced Electronic Materials, 2016, 2, 1500196.	2.6	28
94	Competing Polar and Antipolar Structures in the Ruddlesdenâ€“Popper Layered Perovskite Li₂SrNb₂O₇. Chemistry of Materials, 2019, 31, 4418-4425.	3.2	28
95	Non-stoichiometric control of LiNbO3and LiTaO3in ferroelectric domain engineering for optical devices. Ferroelectrics, 2001, 257, 235-243.	0.3	27
96	Highâ€Pressure Chemical Deposition for Voidâ€Free Filling of Extreme Aspect Ratio Templates. Advanced Materials, 2010, 22, 4605-4611.	11.1	26
97	Origin of piezoelectric response under a biased scanning probe microscopy tip across a 180<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mo>â^˜</mml:mo></mml:msup></mml:math>ferroelectric domain wall. Physical Review B, 2012, 86, .	1.1	26
98	Dipole spring ferroelectrics in superlattice SrTiO3/BaTiO3 thin films exhibiting constricted hysteresis loops. Applied Physics Letters, 2012, 100, .	1.5	26
99	Atomic scale imaging of competing polar states in a Ruddlesdenâ€“Popper layered oxide. Nature Communications, 2016, 7, 12572.	5.8	26
100	Emergent Lowâ€Symmetry Phases and Large Property Enhancements in Ferroelectric KNbO₃ Bulk Crystals. Advanced Materials, 2017, 29, 1700530.	11.1	26
101	High-Quality LaVO₃ Films as Solar Energy Conversion Material. ACS Applied Materials & Interfaces, 2017, 9, 12556-12562.	4.0	26
102	Linear and nonlinear optical probe of the ferroelectric-like phase transition in a polar metal, LiOsO3. Applied Physics Letters, 2018, 113, .	1.5	26
103	Phase transitions and domain stabilities in biaxially strained (001) SrTiO3 epitaxial thin films. Journal of Applied Physics, 2010, 108, 084113.	1.1	25
104	Linear and nonlinear optical properties of multifunctional PbVO3 thin films. Applied Physics Letters, 2008, 92, .	1.5	24
105	Phase diagram and domain splitting in thin ferroelectric films with incommensurate phase. Physical Review B, 2010, 81, .	1.1	23
106	Stoichiometry as key to ferroelectricity in compressively strained SrTiO3 films. Applied Physics Letters, 2016, 109, .	1.5	23
107	Optimizing accuracy and efficacy in data-driven materials discovery for the solar production of hydrogen. Energy and Environmental Science, 2021, 14, 2335-2348.	15.6	23
108	Electric-field induced ferromagnetic phase in paraelectric antiferromagnets. Physical Review B, 2014, 89, .	1.1	22

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109	PbMn(IV)TeO₆: A New Noncentrosymmetric Layered Honeycomb Magnetic Oxide. Inorganic Chemistry, 2016, 55, 1333-1338.	1.9	22
110	Competing Structural Instabilities in the Ruddlesdenâ€“Popper Derivatives HRTiO₄ (R = Rare) Tj ETQq0 0 0 rgBT /Overlock Centrosymmetricity. Chemistry of Materials, 2017, 29, 656-665.	3.2	22
111	YCrWO₆: Polar and Magnetic Oxide with CaTa₂O₆-Related Structure. Chemistry of Materials, 2018, 30, 1045-1054.	3.2	22
112	Rotomagnetic coupling in fine-grained multiferroic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>BiFe</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> : Theory and experiment. Physical Review B, 2018, 97, .	1.1	22
113	Interlayer magnetophononic coupling in MnBi2Te4. Nature Communications, 2022, 13, 1929.	5.8	22
114	Effect of the intrinsic width on the piezoelectric force microscopy of a single ferroelectric domain wall. Journal of Applied Physics, 2008, 103, 124110.	1.1	21
115	Making EuO multiferroic by epitaxial strain engineering. Communications Materials, 2020, 1, .	2.9	21
116	Lowâ€Temperature Cationic Rearrangement in a Bulk Metal Oxide. Angewandte Chemie - International Edition, 2016, 55, 9862-9867.	7.2	20
117	Shape of ferroelectric domains in LiNbO3 and LiTaO3 from defect/domain-wall interactions. Applied Physics Letters, 2011, 98, .	1.5	19
118	Atomic and electronic structure of domains walls in a polar metal. Physical Review B, 2019, 99, .	1.1	19
119	Anomalous electro-optic effect in Sr0.6Ba0.4Nb2O6 single crystals and its application in two-dimensional laser scanning. Applied Physics Letters, 2003, 83, 4375-4377.	1.5	18
120	A(II)GeTeO₆ (A = Mn, Cd, Pb): Non-Centrosymmetric Layered Tellurates with PbSb₂O₆-Related Structure. Inorganic Chemistry, 2017, 56, 9019-9024.	1.9	18
121	Nanoengineering room temperature ferroelectricity into orthorhombic SmMnO3 films. Nature Communications, 2020, 11, 2207.	5.8	17
122	Extreme Ultraviolet Second Harmonic Generation Spectroscopy in a Polar Metal. Nano Letters, 2021, 21, 6095-6101.	4.5	17
123	Low-symmetry monoclinic ferroelectric phase stabilized by oxygen octahedra rotations in strained Eu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>Sr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>â”</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>TiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:. Physical Review B, 2013, 87,	1.1	16
124	Searching for New Ferroelectric Materials Using High-Throughput Databases: An Experimental Perspective on BiAlO₃ and BiInO₃. Chemistry of Materials, 2020, 32, 7274-7283.	3.2	16
125	Giant Nonâ€Resonant Infrared Second Order Nonlinearity in Î³â€²â€²NaAsSe₂. Advanced Optical Materials, 2022, 10, .	3.6	16
126	In-plane quasi-single-domain BaTiO3 via interfacial symmetry engineering. Nature Communications, 2021, 12, 6784.	5.8	16

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127	Solitons and critical breakup fields in lithium niobate type uniaxial ferroelectrics. European Physical Journal B, 2008, 65, 525-531.	0.6	15
128	Phase Transition in Weberiteâ€Type Gd₃NbO₇. Journal of the American Ceramic Society, 2010, 93, 875-880.	1.9	15
129	Chemistry, growth kinetics, and epitaxial stabilization of Sn2+ in Sn-doped SrTiO3 using (CH3)6Sn2 tin precursor. APL Materials, 2016, 4, .	2.2	15
130	Linear antiferrodistortive-antiferromagnetic effect in multiferroics: Physical manifestations. Physical Review B, 2015, 92, .	1.1	14
131	Discovering minimum energy pathways via distortion symmetry groups. Physical Review B, 2018, 98, .	1.1	14
132	Achieving Minimal Heat Conductivity by Ballistic Confinement in Phononic Metalattices. ACS Nano, 2020, 14, 4235-4243.	7.3	14
133	Double antisymmetry and the rotation-reversal space groups. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, 24-38.	0.0	13
134	Domain rearrangement in ferroelectric Bi4Ti3O12 thin films studied by in situ optical second harmonic generation. Journal of Applied Physics, 2001, 90, 3497-3503.	1.1	12
135	Piezoelectric enhancement of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mo>(</mml:mo> superlattices through domain. Physical Review B, 2014, 90, .	1.1	12
136	Nano-imaging of strain-tuned stripe textures in a Mott crystal. Npj Quantum Materials, 2021, 6, .	1.8	12
137	Design and simulation of planar electro-optic switches in ferroelectrics. Applied Physics Letters, 2008, 93, 052912.	1.5	11
138	Sub-wavelength modulation of Ï‡(2) optical nonlinearity in organic thin films. Nature Communications, 2017, 8, 14269.	5.8	11
139	Conformal coating of amorphous silicon and germanium by high pressure chemical vapor deposition for photovoltaic fabrics. APL Materials, 2018, 6, 046105.	2.2	11
140	Comprehensive anisotropic linear optical properties of the Weyl semimetals TaAs and NbAs. Physical Review B, 2021, 103, .	1.1	11
141	SnP₂S₆: A Promising Infrared Nonlinear Optical Crystal with Strong Nonresonant Second Harmonic Generation and Phase-Matchability. ACS Photonics, 2022, 9, 1724-1732.	3.2	11
142	Emergent room temperature polar phase in CaTiO3 nanoparticles and single crystals. APL Materials, 2019, 7, .	2.2	10
143	Large tetragonality and room temperature ferroelectricity in compressively strained CaTiO3 thin films. APL Materials, 2019, 7, .	2.2	10
144	Nondestructive Measurements of the Mechanical and Structural Properties of Nanostructured Metalattices. Nano Letters, 2020, 20, 3306-3312.	4.5	10

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145	Dynamics of voltage-driven oscillating insulator-metal transitions. Physical Review B, 2021, 104, .	1.1	10
146	A magnifying fiber element with an array of sub-wavelength Ge/ZnSe pixel waveguides for infrared imaging. Applied Physics Letters, 2012, 101, .	1.5	9
147	Impact of Free Charges on Polarization and Pyroelectricity in Antiferrodistortive Structures and Surfaces Induced by a Flexoelectric Effect. Ferroelectrics, 2012, 438, 32-44.	0.3	9
148	Antisymmetry: Fundamentals and Applications. Annual Review of Materials Research, 2020, 50, 255-281.	4.3	9
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