Kaushik Bhattacharya

List of Publications by Year
in descending order

175	7,992	47006	54911
papers	citations	47 h-index	84 g-index

186	186	186	5420
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Domain switching in polycrystalline ferroelectric ceramics. Nature Materials, 2005, 4, 776-781.	27.5	373
2	Crystal symmetry and the reversibility of martensitic transformations. Nature, 2004, 428, 55-59.	27.8	297
3	A computational model of ferroelectric domains. Part I: model formulation and domain switching. Acta Materialia, 2005, 53, 185-198.	7.9	277
4	APPLIED PHYSICS: The Material Is the Machine. Science, 2005, 307, 53-54.	12.6	230
5	A theory of thin films of martensitic materials withapplications to microactuatorsfn2fn2Dedicated to thememory of Juan Simo.. Journal of the Mechanics and Physics of Solids, 1999, 47, 531-576.	4.8	212
6	Electrooptic Modulation in Thin Film Barium Titanate Plasmonic Interferometers. Nano Letters, 2008, 8, 4048-4052.	9.1	212
7	All-organic dielectric-percolative three-component composite materials with high electromechanical response. Applied Physics Letters, 2004, 84, 4391-4393.	3.3	198
8	Symmetry, texture and the recoverable strain of shape-memory polycrystals. Acta Materialia, 1996, 44, 529-542.	7.9	197
9	Stress-induced martensitic phase transformation in thin sheets of Nitinol. Acta Materialia, 2007, 55, 3593-3600.	7.9	171
10	Domain patterns and macroscopic behaviour of ferroelectric materials. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 2021-2054.	0.6	170
11	Comparison of the geometrically nonlinear and linear theories of martensitic transformation. Continuum Mechanics and Thermodynamics, 1993, 5, 205-242.	2.2	152
12	Wedge-like microstructure in martensites. Acta Metallurgica Et Materialia, 1991, 39, 2431-2444.	1.8	151
13	Effective toughness of heterogeneous media. Journal of the Mechanics and Physics of Solids, 2014, 71, 15-32.	4.8	151
14	The influence of texture on the shape-memory effect in polycrystals. Acta Materialia, 1998, 46, 5457-5473.	7.9	146
15	Gaussian curvature from flat elastica sheets. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 1121-1140.	2.1	137
16	Self-accommodation in martensite. Archive for Rational Mechanics and Analysis, 1992, 120, 201-244.	2.4	135
17	Depletion Layers and Domain Walls in Semiconducting Ferroelectric Thin Films. Physical Review Letters, 2005, 95, 247603.	7.8	135
18	Large strain electrostrictive actuation in barium titanate. Applied Physics Letters, 2000, 77, 1698-1700.	3.3	130

#	Article	IF	Citations
19	Snap-through actuation of thick-wall electroactive balloons. International Journal of Non-Linear Mechanics, 2012, 47, 206-209.	2.6	121
20	Ferroelectric perovskites for electromechanical actuation. Acta Materialia, 2003, 51, 5941-5960.	7.9	120
21	Kinetics of phase transformations in the peridynamic formulation of continuum mechanics. Journal of the Mechanics and Physics of Solids, 2006, 54, 1811-1842.	4.8	119
22	Quasi-continuum orbital-free density-functional theory: A route to multi-million atom non-periodic DFT calculation. Journal of the Mechanics and Physics of Solids, 2007, 55, 697-718.	4.8	117
23	An experimental investigation of crack initiation in thin sheets of nitinol. Acta Materialia, 2007, 55, 6322-6330.	7.9	116
24	Large electrostrictive actuation of barium titanate single crystals. Journal of the Mechanics and Physics of Solids, 2004, 52, 823-846.	4.8	115
25	Investigation of twin-wall structure at the nanometre scale using atomic force microscopy. Nature Materials, 2004, 3, 453-457.	27.5	109
26	Elastic Energy Minimization and the Recoverable Strains of Polycrystalline Shape-Memory Materials. Archive for Rational Mechanics and Analysis, 1997, 139, 99-180.	2.4	105
27	Non-periodic finite-element formulation of Kohnâ€“Sham density functional theory. Journal of the Mechanics and Physics of Solids, 2010, 58, 256-280.	4.8	101
28	Disclination-mediated thermo-optical response in nematic glass sheets. Physical Review E, 2010, 81, 060701.	2.1	100
29	Transformation strains and temperatures of a nickelâ€“titaniumâ€“hafnium high temperature shape memory alloy. Acta Materialia, 2014, 76, 40-53.	7.9	96
30	Toughening and Asymmetry in Peeling of Heterogeneous Adhesives. Physical Review Letters, 2012, 108, 196101.	7.8	95
31	The Influence of the R-Phase on the Superelastic Behavior of NiTi. Shape Memory and Superelasticity, 2015, 1, 153-161.	2.2	95
32	A computational model of ferroelectric domains. Part II: grain boundaries and defect pinning. Acta Materialia, 2005, 53, 199-209.	7.9	93
33	Dielectric elastomer composites. Journal of the Mechanics and Physics of Solids, 2012, 60, 181-198.	4.8	93
34	A real-space non-local phase-field model of ferroelectric domain patterns in complex geometries. Acta Materialia, 2007, 55, 1907-1917.	7.9	92
35	Model Reduction And Neural Networks For Parametric PDEs. SMAI Journal of Computational Mathematics, 0, 7, 121-157.	0.0	89
36	Restrictions on microstructure. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1994, 124, 843-878.	1.2	88

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37	Elasticity of polydomain liquid crystal elastomers. Journal of the Mechanics and Physics of Solids, 2012, 60, 573-590.	4.8	72
38	Adhesion of heterogeneous thin filmsâ€"I: Elastic heterogeneity. Journal of the Mechanics and Physics of Solids, 2013, 61, 838-851.	4.8	71
39	Supersoft Elasticity in Polydomain Nematic Elastomers. Physical Review Letters, 2009, 103, 037802.	7.8	65
40	Interplay of martensitic phase transformation and plastic slip in polycrystals. Acta Materialia, 2013, 61, 4384-4397.	7.9	61
41	A nonlinear beam model of photomotile structures. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 9762-9770.	7.1	60
42	Non-periodic finite-element formulation of orbital-free density functional theory. Journal of the Mechanics and Physics of Solids, 2007, 55, 669-696.	4.8	57
43	Wave propagation in a sandwich structure. International Journal of Solids and Structures, 2009, 46, 3290-3300.	2.7	57
44	Kinetics of phase boundaries with edges andjunctions. Journal of the Mechanics and Physics of Solids, 1998, 46, 2323-2359.	4.8	55
45	Optimization of Bone Scaffold Porosity Distributions. Scientific Reports, 2019, 9, 9170.	3.3	51
46	A Continuum Theory of Deformable, Semiconducting Ferroelectrics. Archive for Rational Mechanics and Analysis, 2008, 189, 59-95.	2.4	48
47	Adhesion of heterogeneous thin films II: Adhesive heterogeneity. Journal of the Mechanics and Physics of Solids, 2015, 83, 88-103.	4.8	48
48	Vacancy clustering and prismatic dislocation loop formation in aluminum. Physical Review B, 2007, 76, .	3.2	47
49	A model problem concerning recoverable strains of shape-memory polycrystals. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2005, 461, 2797-2816.	2.1	46
50	A micromechanics-inspired constitutive model for shape-memory alloys. Smart Materials and Structures, 2007, 16, 1751-1765.	3.5	46
51	Coarse-graining Kohnâ€"Sham Density Functional Theory. Journal of the Mechanics and Physics of Solids, 2013, 61, 38-60.	4.8	46
52	Augmented Lagrangian Digital Image Correlation. Experimental Mechanics, 2019, 59, 187-205.	2.0	44
53	Multiscale instabilities in soft heterogeneous dielectric elastomers. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20130618.	2.1	43
54	Programming complex shapes in thin nematic elastomer and glass sheets. Physical Review E, 2016, 94, 010701.	2.1	43

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55	Tents and tunnels on martensitic films. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 273-275, 685-689.	5.6	42
56	Plates with Incompatible Prestrain. Archive for Rational Mechanics and Analysis, 2016, 221, 143-181.	2.4	39
57	Patterning nonisometric origami in nematic elastomer sheets. Soft Matter, 2018, 14, 3127-3134.	2.7	39
58	A micromechanics inspired constitutive model for shape-memory alloys: the one-dimensional case. Smart Materials and Structures, 2007, 16, S51-S62.	3.5	38
59	Microstructure-enabled control of wrinkling in nematic elastomer sheets. Journal of the Mechanics and Physics of Solids, 2017, 102, 125-150.	4.8	37
60	Graded ferroelectric capacitors with robust temperature characteristics. Journal of Applied Physics, 2006, 100, 114115.	2.5	35
61	The Simply Laminated Microstructure in Martensitic Crystals that Undergo a Cubic-to-Orthorhombic Phase Transformation. Archive for Rational Mechanics and Analysis, 1999, 149, 123-154.	2.4	34
62	Exceptional Resilience of Small-Scale Au₃₀Cu₂₅Zn₄₅ under Cyclic Stress-Induced Phase Transformation. Nano Letters, 2016, 16, 7621-7625.	9.1	34
63	DIC Challenge 2.0: Developing Images and Guidelines for Evaluating Accuracy and Resolution of 2D Analyses. Experimental Mechanics, 2022, 62, 639-654.	2.0	34
64	Computational analysis of liquid crystalline elastomer membranes: Changing Gaussian curvature without stretch energy. International Journal of Solids and Structures, 2014, 51, 144-153.	2.7	31
65	The Measurement and Interpretation of Transformation Temperatures in Nitinol. Shape Memory and Superelasticity, 2017, 3, 485-498.	2.2	31
66	Photomechanical coupling in photoactive nematic elastomers. Journal of the Mechanics and Physics of Solids, 2020, 144, 104115.	4.8	31
67	Stress fluctuation, crack renucleation and toughening in layered materials. Journal of the Mechanics and Physics of Solids, 2018, 120, 68-78.	4.8	30
68	Fibrous composites of piezoelectric and piezomagnetic phases. Mechanics of Materials, 2013, 60, 159-170.	3.2	28
69	Phase boundary propagation in a heterogeneous body. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1999, 455, 757-766.	2.1	27
70	Modeling electromechanical properties of ionic polymers. , 2001, 4329, 292.		27
71	Dynamics of strings made of phase-transforming materials. Journal of the Mechanics and Physics of Solids, 2003, 51, 393-424.	4.8	27
72	The effect of biaxial texture on the effective electromechanical constants of polycrystalline barium titanate and lead titanate thin films. Acta Materialia, 2006, 54, 3657-3663.	7.9	27

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73	A mesh-free convex approximation scheme for Kohnâ€“Sham density functional theory. Journal of Computational Physics, 2011, 230, 5226-5238.	3.8	27
74	Proliferation of twinning in hexagonal close-packed metals: Application to magnesium. Journal of the Mechanics and Physics of Solids, 2018, 112, 368-384.	4.8	27
75	Relaxation of some multi-well problems. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2001, 131, 279-320.	1.2	26
76	A micromechanics-inspired constitutive model for shape-memory alloys that accounts for initiation and saturation of phase transformation. Journal of the Mechanics and Physics of Solids, 2016, 97, 197-224.	4.8	26
77	Relaxed constitutive relations for phase transforming materials. Journal of the Mechanics and Physics of Solids, 2000, 48, 1493-1517.	4.8	25
78	Kinetics of phase boundaries with edges and junctions in a three-dimensional multi-phase body. Journal of the Mechanics and Physics of Solids, 2000, 48, 2619-2641.	4.8	25
79	Effective Behavior of Nematic Elastomer Membranes. Archive for Rational Mechanics and Analysis, 2015, 218, 863-905.	2.4	25
80	Large Deformation of Nitinol Under Shear Dominant Loading. Experimental Mechanics, 2009, 49, 225-233.	2.0	24
81	Phase transformation and hysteresis behavior in Cs1â^'xRbxH2PO4. Solid State Ionics, 2010, 181, 173-179.	2.7	24
82	Dynamic behavior of nano-voids in magnesium under hydrostatic tensile stress. Modelling and Simulation in Materials Science and Engineering, 2016, 24, 065003.	2.0	24
83	A Theory of Anharmonic Lattice Statics for Analysis of Defective Crystals. Journal of Elasticity, 2006, 86, 41-83.	1.9	23
84	Characterization of domain walls in BaTiO3 using simultaneous atomic force and piezo response force microscopy. Applied Physics Letters, 2006, 88, 102907.	3.3	23
85	A model for large electrostrictive actuation in ferroelectric single crystals. International Journal of Solids and Structures, 2007, 44, 2053-2065.	2.7	23
86	Probing the in-plane liquid-like behavior of liquid crystal elastomers. Science Advances, 2021, 7, .	10.3	23
87	A learning-based multiscale method and its application to inelastic impact problems. Journal of the Mechanics and Physics of Solids, 2022, 158, 104668.	4.8	23
88	The Relaxation of Two-well Energies with Possibly Unequal Moduli. Archive for Rational Mechanics and Analysis, 2008, 187, 409-479.	2.4	22
89	Optimization of magnetoelectricity in piezoelectricâ€“magnetostrictive bilayers. Smart Materials and Structures, 2010, 19, 125010.	3.5	22
90	Stability of MultiComponent Biological Membranes. SIAM Journal on Applied Mathematics, 2012, 72, 489-511.	1.8	22

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91	A sublinear-scaling approach to density-functional-theory analysis of crystal defects. Journal of the Mechanics and Physics of Solids, 2016, 95, 530-556.	4.8	21
92	On beams made of a phase-transforming material. International Journal of Solids and Structures, 2002, 39, 3907-3929.	2.7	20
93	Phase-field study of crack nucleation and propagation in elasticâ€“perfectly plastic bodies. Computer Methods in Applied Mechanics and Engineering, 2019, 353, 44-65.	6.6	20
94	Accelerated computational micromechanics and its application to polydomain liquid crystal elastomers. Journal of the Mechanics and Physics of Solids, 2021, 153, 104470.	4.8	20
95	Multiscale modeling of materials: Computing, data science, uncertainty and goal-oriented optimization. Mechanics of Materials, 2022, 165, 104156.	3.2	20
96	Evolution of polarization and space charges in semiconducting ferroelectrics. Journal of Applied Physics, 2012, 111, 034109.	2.5	19
97	Collective behavior of viscoelastic asperities as a model for static and kinetic friction. Journal of the Mechanics and Physics of Solids, 2015, 76, 144-161.	4.8	19
98	A coarse-grained model of the myofibril: Overall dynamics and the evolution of sarcomere non-uniformities. Journal of the Mechanics and Physics of Solids, 2009, 57, 221-243.	4.8	18
99	Metamaterials with engineered failure load and stiffness. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23960-23965.	7.1	18
100	Actuation of cylindrical nematic elastomer balloons. Journal of Applied Physics, 2021, 129, .	2.5	17
101	Combining Image Compression with Digital Image Correlation. Experimental Mechanics, 2019, 59, 629-642.	2.0	16
102	Actuation of Thin Nematic Elastomer Sheets with Controlled Heterogeneity. Archive for Rational Mechanics and Analysis, 2018, 227, 149-214.	2.4	15
103	Photovoltaic effect in multi-domain ferroelectric perovskite oxides. Journal of Applied Physics, 2019, 125, .	2.5	15
104	An Asymptotic StudyÂ¶of the Debonding of Thin Films. Archive for Rational Mechanics and Analysis, 2002, 161, 205-229.	2.4	14
105	Effective motion of a curvature-sensitive interface through a heterogeneous medium. Interfaces and Free Boundaries, 2004, 6, 151-173.	0.8	14
106	Stress-Induced Phase Transformations in Shape-Memory Polycrystals. Archive for Rational Mechanics and Analysis, 2010, 196, 715-751.	2.4	14
107	Fracture Diodes: Directional Asymmetry of Fracture Toughness. Physical Review Letters, 2021, 126, 025503.	7.8	14
108	Active tuning of photonic device characteristics during operation by ferroelectric domain switching. Journal of Applied Physics, 2007, 102, 064102.	2.5	13

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109	Mechanical Characterization of Released Thin Films by Contact Loading. Journal of Applied Mechanics, Transactions ASME, 2006, 73, 730.	2.2	12
110	Anharmonic lattice statics analysis of 180â€‰Â°â€‰and 90Â° ferroelectric domain walls in PbTiO₃. Philosophical Magazine, 2007, 87, 3997-4026.	1.6	12
111	Phase Shifting Full-Field Interferometric Methods for Determination of In-Plane Tensorial Stress. Experimental Mechanics, 2009, 49, 303-315.	2.0	12
112	Effect of doping on polarization profiles and switching in semiconducting ferroelectric thin films. Journal of Applied Physics, 2012, 111, 084105.	2.5	12
113	Effect of Cohesive Zone Size on Peeling of Heterogeneous Adhesive Tape. Journal of Applied Mechanics, Transactions ASME, 2018, 85, .	2.2	12
114	Spectrum-splitting approach for Fermi-operator expansion in all-electron Kohn-Sham DFT calculations. Physical Review B, 2017, 95, .	3.2	11
115	Guiding and Trapping Cracks With Compliant Inclusions for Enhancing Toughness of Brittle Composite Materials. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .	2.2	11
116	A three-dimensional model of step flow mediated crystal growth under the combined influences of stress and diffusion. Thin Solid Films, 1999, 357, 35-39.	1.8	10
117	Homogenization of a Hamiltonâ€“Jacobi equation associated with the geometric motion of an interface. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2003, 133, 773-805.	1.2	10
118	Existence of Surface Waves and Band Gaps in Periodic Heterogeneous Half-spaces. Journal of Elasticity, 2012, 107, 65-79.	1.9	10
119	A model coupling plasticity and phase transformation with application to dynamic shear deformation of iron. Mechanics of Materials, 2015, 80, 255-263.	3.2	10
120	Large scale ab-initio simulations of dislocations. Journal of Computational Physics, 2020, 407, 109249.	3.8	10
121	Fast Adaptive Mesh Augmented Lagrangian Digital Image Correlation. Experimental Mechanics, 2021, 61, 719-735.	2.0	10
122	Hierarchical multiscale quantification of material uncertainty. Journal of the Mechanics and Physics of Solids, 2021, 153, 104492.	4.8	10
123	Transformation yield surface of shape memory alloys. European Physical Journal Special Topics, 2004, 115, 155-162.	0.2	9
124	Homogenization and Path Independence of the J-Integral in Heterogeneous Materials. Journal of Applied Mechanics, Transactions ASME, 2016, 83, .	2.2	9
125	Effective behavior of an interface propagating through a periodic elastic medium. Interfaces and Free Boundaries, 2016, 18, 91-113.	0.8	8
126	Length scales and pinning of interfaces. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150167.	3.4	8

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127	A Continuum Theory of Multispecies Thin Solid Film Growth by Chemical Vapor Deposition. Journal of Elasticity, 2003, 73, 13-74.	1.9	7
128	Mobility of twin and phase boundaries. European Physical Journal Special Topics, 2003, 112, 163-166.	0.2	7
129	Interaction of oxygen vacancies with domain walls and its impact on fatigue in ferroelectric thin films. , 2004, , .		7
130	Transmission wavefront shearing interferometry for photoelastic materials. Applied Optics, 2009, 48, 2450.	2.1	7
131	Optimizing microstructure for toughness: the model problem of peeling. Structural and Multidisciplinary Optimization, 2018, 58, 1067-1080.	3.5	7
132	Impact induced depolarization of ferroelectric materials. Journal of the Mechanics and Physics of Solids, 2018, 115, 142-166.	4.8	7
133	Machine-learned prediction of the electronic fields in a crystal. Mechanics of Materials, 2021, 163, 104070.	3.2	7
134	Some examples of nonlinear homogenization involving nearly degenerate energies. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1999, 455, 567-583.	2.1	6
135	Thin films with many small cracks. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 823-840.	2.1	6
136	Computational analysis of martensitic thin films using subdivision surfaces. International Journal for Numerical Methods in Engineering, 2007, 72, 72-94.	2.8	6
137	Competing failure mechanisms in thin films: Application to layer transfer. Journal of Applied Physics, 2009, 105, 073514.	2.5	6
138	A Sharp Interface Model for the Propagation of Martensitic Phase Boundaries. Archive for Rational Mechanics and Analysis, 2010, 197, 599-617.	2.4	6
139	A Variational Framework for Spectral Approximations of Kohnâ€“Sham Density Functional Theory. Archive for Rational Mechanics and Analysis, 2016, 221, 1035-1075.	2.4	6
140	The mathematics of microstructure and the design of new materials. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 8332-8333.	7.1	5
141	Examples of nonlinear homogenization involving degenerate energies. I. Plane strain. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2005, 461, 3681-3703.	2.1	5
142	A phase-field approach for the modeling of nematic liquid crystal elastomers. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 577-578.	0.2	5
143	Collective behavior in the kinetics and equilibrium of solid-state photoreaction. Extreme Mechanics Letters, 2021, 43, 101160.	4.1	5
144	Edge effects on the propagation of phase boundaries. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 273-275, 241-244.	5.6	4

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145	Characterization of soft stripe-domain deformations in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>Sm-</mml:mtext><mml:mi>C</mml:mi></mml:mrow></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>Sm-</mml:mtext><mml:msup><mml:mi>C</mml:mi><mml:mo>â^—</mml:mo></mml:msup> elastomers. Physical Review E, 2009, 79, 061705.	2.1	4
146	Optimal design of a model energy conversion device. Structural and Multidisciplinary Optimization, 2019, 59, 389-401.	3.5	4
147	Photochemical-induced phase transitions in photoactive semicrystalline polymers. Physical Review E, 2021, 103, 033003.	2.1	4
148	Influence of thermomechanical loads on the energetics of precipitation in magnesium aluminum alloys. Acta Materialia, 2020, 193, 28-39.	7.9	4
149	Spectral quadrature for the first principles study of crystal defects: Application to magnesium. Journal of Computational Physics, 2022, 456, 111035.	3.8	4
150	Crystallographic Attributes of a Shape-Memory Alloy. Journal of Engineering Materials and Technology, Transactions of the ASME, 1999, 121, 93-97.	1.4	3
151	Electromechanical behavior of 90-degree domain motion in barium titanate single crystals. , 2001, , .		3
152	Parallel edge cracks due to a phase transformation. International Journal of Solids and Structures, 2013, 50, 1550-1561.	2.7	3
153	A Phase Field Approach for Martensitic Transformations and Crystal Plasticity. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 383-384.	0.2	3
154	Electroclinic effect in chiral smectic- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>A</mml:mi></mml:math> liquid crystal elastomers. Physical Review E, 2017, 96, 032701.	2.1	3
155	A macroscopic strain-space model of anisotropic, cyclic plasticity with hardening. International Journal of Mechanical Sciences, 2018, 149, 365-372.	6.7	3
156	Obreimoff revisited: Controlled heterogeneous fracture through the splitting of mica. Mechanics of Materials, 2019, 136, 103088.	3.2	3
157	Understanding the morphotropic phase boundary of perovskite solid solutions as a frustrated state. Physical Review B, 2021, 103, .	3.2	3
158	Optimal design of responsive structures. Structural and Multidisciplinary Optimization, 2022, 65, 1.	3.5	3
159	A multispecies step-flow model of growth of compound thin films by MOCVD. Thin Solid Films, 1999, 357, 26-30.	1.8	2
160	Modeling large strain electrostriction of ferroelectrics under combined electromechanical loads. , 2003, 5053, 368.		2
161	The relation between a microscopic threshold-force model and macroscopic models of adhesion. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 508-515.	3.4	2
162	Simple deformation measures for discrete elastic rods and ribbons. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, .	2.1	2

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163	Comments on the spontaneous strain and polarization of polycrystalline ferroelectric ceramics. , 2001, 4333, 80.		1
164	The effect of precipitates on the evolution of a martensitic phase boundary. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1151207-1151208.	0.2	1
165	On the Sachs bound in stress-induced phase transformations in polycrystalline scalar shape-memory alloys. Proceedings in Applied Mathematics and Mechanics, 2008, 8, 10569-10570.	0.2	1
166	Bounds on precipitate hardening of line and surface defects in solids. Zeitschrift Fur Angewandte Mathematik Und Physik, 2020, 71, 1.	1.4	1
167	Linear Scaling DFT for defects in metals. , 2014, , 265-272.		1
168	Imposing equilibrium on experimental 3-D stress fields using Hodge decomposition and FFT-based optimization. Mechanics of Materials, 2022, 164, 104109.	3.2	1
169	Crystal Symmetry and the Reversibility of Martensitic Transformations.. ChemInform, 2004, 35, no.	0.0	0
170	Wavelet analysis of microscale strains. Acta Materialia, 2014, 76, 118-126.	7.9	0
171	Investigation of Twin-Wall Structure at the Nanometer Scale Using Atomic Force Microscopy. , 2007, , 385-386.		0
172	A Boundary Element Method Coupled to Phase Field to Compute Ferroelectric Domains in Complex Geometries. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2011, , 277-286.	0.2	0
173	Applications of Wavelets in the Representation and Prediction of Transformation in Shape-Memory Polycrystals. , 2014, , 527-534.		0
174	The Taylor Estimate of Recoverable Strains in Shape-Memory Polycrystals. , 1998, , 123-134.		0
175	Thin Films of Active Materials. , 2004, , 15-44.		0