

# Takahiro Shimada

## List of Publications by Year in descending order

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papers

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218381

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docs citations

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Modulation of Gas Adsorption and Magnetic Properties of Monolayer-MoS <sub>2</sub> by Antisite Defect and Strain. Journal of Physical Chemistry C, 2016, 120, 14113-14121.	1.5	72
2	Breakdown of Continuum Fracture Mechanics at the Nanoscale. Scientific Reports, 2015, 5, 8596.	1.6	69
3	Hybrid Hartree-Fock density functional study of charged point defects in ferroelectric PbTiO <sub>3</sub> . Physical Review B, 2013, 87, .	1.1	63
4	Vacancy-driven ferromagnetism in ferroelectric PbTiO <sub>3</sub> . Applied Physics Letters, 2012, 100, 162901.	1.5	61
5	Stone-Wales transformations triggered by intrinsic localized modes in carbon nanotubes. Physical Review B, 2010, 81, .	1.1	59
6	Ab initio study of ferroelectric closure domains in ultrathin PbTiO <sub>3</sub> . Physical Review B, 2010, 81, .	1.1	54
7	Ab initio study of ferroelectricity in edged PbTiO <sub>3</sub> nanowires under axial tension. Physical Review B, 2009, 79, .	1.1	53
8	Ab initio study of stress-induced domain switching in PbTiO <sub>3</sub> . Physical Review B, 2008, 77, .	1.1	50
9	Role of grain orientation distribution in the ferroelectric and ferroelastic domain switching of ferroelectric polycrystals. Acta Materialia, 2013, 61, 6037-6049.	3.8	47
10	Shell model potential for PbTiO <sub>3</sub> and its applicability to surfaces and domain walls. Journal of Physics Condensed Matter, 2008, 20, 325225.	0.7	44
11	Multiferroic Domain Walls in Ferroelectric PbTiO <sub>3</sub> with Oxygen Deficiency. Nano Letters, 2016, 16, 454-458.	4.5	44
12	Ab initio density functional theory study of strain effects on ferroelectricity at PbTiO <sub>3</sub> surfaces. Physical Review B, 2006, 74, .	1.1	42
13	Absence of Ferroelectric Critical Size in Ultrathin PbTiO <sub>3</sub> Nanotubes: A Density-Functional Theory Study. Physical Review Letters, 2012, 108, 067601.	2.9	40
14	Multiferroic nature of intrinsic point defects in BiFeO <sub>3</sub> . A hybrid Hartree-Fock density functional study. Physical Review B, 2016, 93, .	1.1	39
15	Griffith Criterion for Nanoscale Stress Singularity in Brittle Silicon. ACS Nano, 2017, 11, 6271-6276.	7.3	38
16	Large electrocaloric effect induced by the multi-domain to mono-domain transition in ferroelectrics. Journal of Applied Physics, 2014, 115, 164102.	1.1	37
17	Anomalous toughening in nanoscale ferroelectrics with polarization vortices. Acta Materialia, 2015, 88, 147-155.	3.8	37
18	Switching the chirality of a ferroelectric vortex in designed nanostructures by a homogeneous electric field. Physical Review B, 2017, 96, .	1.1	36

#	ARTICLE	IF	CITATIONS
19	Ferroelectricity in Ruddlesden-Popper Chalcogenide Perovskites for Photovoltaic Application: The Role of Tolerance Factor. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5834-5839.	2.1	35
20	Direct approach for flexoelectricity from first-principles calculations: cases for SrTiO <sub>3</sub> and BaTiO <sub>3</sub> . <i>Journal of Physics Condensed Matter</i> , 2013, 25, 415901.	0.7	33
21	Hierarchical ferroelectric and ferrotoroidic polarizations coexistent in nano-metamaterials. <i>Scientific Reports</i> , 2015, 5, 14653.	1.6	33
22	A unified and universal Griffith-based criterion for brittle fracture. <i>International Journal of Solids and Structures</i> , 2017, 128, 67-72.	1.3	32
23	First-principles study of the interplay between grain boundaries and domain walls in ferroelectric PbTiO <sub>3</sub> . <i>Physical Review B</i> , 2011, 83, .	1.1	30
24	Mechanical control of magnetism in oxygen deficient perovskite SrTiO <sub>3</sub> . <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 27136-27144.	1.3	28
25	Ab initio study of magnetism at iron surfaces under epitaxial in-plane strain. <i>Physical Review B</i> , 2010, 81, .	1.1	27
26	Polar and toroidal electromechanical properties designed by ferroelectric nano-metamaterials. <i>Acta Materialia</i> , 2016, 113, 81-89.	3.8	27
27	Multiferroic Dislocations in Ferroelectric PbTiO <sub>3</sub> . <i>Nano Letters</i> , 2017, 17, 2674-2680.	4.5	27
28	Multiferroic Grain Boundaries in Oxygen-Deficient Ferroelectric Lead Titanate. <i>Nano Letters</i> , 2015, 15, 27-33.	4.5	26
29	An I-integral method for crack-tip intensity factor variation due to domain switching in ferroelectric single-crystals. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 94, 207-229.	2.3	26
30	Control of the polarity of magnetization vortex by torsion. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	25
31	Coexistence of rectilinear and vortex polarizations at twist boundaries in ferroelectric PbTiO <sub>3</sub> from first principles. <i>Physical Review B</i> , 2011, 83, .	1.1	24
32	Self-ordering of nontrivial topological polarization structures in nanoporous ferroelectrics. <i>Nanoscale</i> , 2017, 9, 15525-15533.	2.8	23
33	First-principles study on ferroelectricity at PbTiO <sub>3</sub> surface steps. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 355901.	0.7	21
34	Disappearance of ferroelectric critical thickness in epitaxial ultrathin BaZrO <sub>3</sub> films. <i>Physical Review B</i> , 2014, 90, .	1.1	21
35	Multilevel hysteresis loop engineered with ferroelectric nano-metamaterials. <i>Acta Materialia</i> , 2017, 125, 202-209.	3.8	21
36	Ferroelectric control of magnetic skyrmions in multiferroic heterostructures. <i>Physical Review B</i> , 2020, 102, .	1.1	21

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37	Emergence of ferromagnetism at a vacancy on a non-magnetic ferroelectric PbTiO <sub>3</sub> surface: A first-principles study. <i>Acta Materialia</i> , 2012, 60, 6322-6330.	3.8	20
38	Strain tunable ferroelectric and dielectric properties of BaZrO <sub>3</sub> . <i>Journal of Applied Physics</i> , 2014, 115, 224107.	1.1	20
39	Atomic investigation of effects of coating and confinement layer on laser shock peening. <i>Optics and Laser Technology</i> , 2020, 131, 106409.	2.2	20
40	Influence of nonlinear atomic interaction on excitation of intrinsic localized modes in carbon nanotubes. <i>Physica D: Nonlinear Phenomena</i> , 2010, 239, 407-413.	1.3	19
41	Colossal magnetoelectric effect in 3-1 multiferroic nanocomposites originating from ultrafine nanodomain structures. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	19
42	Multiferroic Vacancies at Ferroelectric $\text{PbTiO}_3$ . <i>Physical Review Letters</i> , 2015, 115, 107202.	2.9	18
43	Instability criterion for ferroelectrics under mechanical/electric multi-fields: Ginzburg-Landau theory based modeling. <i>Acta Materialia</i> , 2016, 112, 1-10.	3.8	18
44	Strain-induced ferroelectricity and lattice coupling in BaSnO <sub>3</sub> and SrSnO <sub>3</sub> . <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 26047-26055.	1.3	18
45	Lifetime prediction of thermoelectric devices under thermal cycling. <i>Journal of Power Sources</i> , 2019, 437, 226861.	4.0	18
46	<i>Ab initio</i> study of ferromagnetic single-wall nickel nanotubes. <i>Physical Review B</i> , 2011, 84, .	1.1	17
47	<i>Ab initio</i> study of spin-spiral noncollinear magnetism in a free-standing Fe(110) monolayer under in-plane strain. <i>Physical Review B</i> , 2012, 85, .	1.1	17
48	Effect of strain on the evolution of magnetic multi-vortices in ferromagnetic nano-platelets. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 226002.	0.7	17
49	Defect-strain engineering for multiferroic and magnetoelectric properties in epitaxial (110) ferroelectric lead titanate. <i>Physical Review B</i> , 2015, 92, .	1.1	17
50	Strain energy density approach for brittle fracture from nano to macroscale and breakdown of continuum theory. <i>Theoretical and Applied Fracture Mechanics</i> , 2019, 103, 102300.	2.1	17
51	Unusual winding of helices under tension. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	16
52	<i>Ab initio</i> study of multiferroic $\text{BiFeO}_3$ (110) surfaces. <i>Physical Review B</i> , 2014, 89, .	1.1	16
53	Effect of the oxygen vacancy on the ferroelectricity of 90° domain wall structure in PbTiO <sub>3</sub> : A density functional theory study. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	16
54	Deterministic Switching of Polarization Vortices in Compositionally Graded Ferroelectrics Using a Mechanical Field. <i>Physical Review Applied</i> , 2019, 11, .	1.5	16

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55	Two-dimensional polar metal of a PbTe monolayer by electrostatic doping. <i>Nanoscale Horizons</i> , 2020, 5, 1400-1406.	4.1	16
56	Simplified evaluation of mechanical instability in large-scale atomic structures. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 513-514, 166-171.	2.6	15
57	Polar Superhelices in Ferroelectric Chiral Nanosprings. <i>Scientific Reports</i> , 2016, 6, 35199.	1.6	15
58	Challenge toward nanometer scale fracture mechanics. <i>Engineering Fracture Mechanics</i> , 2018, 187, 33-44.	2.0	15
59	Ultrasoft silicon nanomembranes: thickness-dependent effective elastic modulus. <i>Nanoscale</i> , 2019, 11, 15184-15194.	2.8	15
60	Asymmetric flux-closure domains in compositionally graded nanoscale ferroelectrics and unusual switching of toroidal ordering by an irrotational electric field. <i>Acta Materialia</i> , 2019, 179, 215-223.	3.8	15
61	Strain-induced improper ferroelectricity in Ruddlesden-Popper perovskite halides. <i>Physical Review B</i> , 2017, 96, .	1.1	14
62	Effect of geometric configuration on the electrocaloric properties of nanoscale ferroelectric materials. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	14
63	Electron engineering of metallic multiferroic polarons in epitaxial BaTiO <sub>3</sub> . <i>Npj Computational Materials</i> , 2019, 5, .	3.5	14
64	Selective excitation of two-wave structure depending on crystal orientation under shock compression. <i>Science China: Physics, Mechanics and Astronomy</i> , 2020, 63, 1.	2.0	14
65	The rectilinear motion of the individual asymmetrical skyrmion driven by temperature gradients. <i>Acta Materialia</i> , 2021, 221, 117383.	3.8	14
66	Development of Interatomic Potential for Pb(Zr, Ti)O <sub>3</sub> Based on Shell model. <i>Journal of Solid Mechanics and Materials Engineering</i> , 2007, 1, 1423-1431.	0.5	13
67	Ab initio study of ferromagnetism in edged iron nanowires under axial strain. <i>Physical Review B</i> , 2011, 84, .	1.1	13
68	Linear-superelastic Ti-Nb nanocomposite alloys with ultralow modulus via high-throughput phase-field design and machine learning. <i>Npj Computational Materials</i> , 2021, 7, .	3.5	13
69	Dislocation nucleation in a thin Cu film from molecular dynamics simulations: Instability activation by thermal fluctuations. <i>Physical Review B</i> , 2010, 82, .	1.1	12
70	Magnetic instability criterion for spin-lattice systems. <i>Computational Materials Science</i> , 2015, 97, 216-221.	1.4	11
71	Mechanics of Fibrous Biological Materials With Hierarchical Chirality. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2016, 83, .	1.1	11
72	Unusual Multiferroic Phase Transitions in PbTiO <sub>3</sub> Nanowires. <i>Nano Letters</i> , 2016, 16, 6774-6779.	4.5	11

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73	Unusual Metallic Multiferroic Transitions in Electron-Doped PbTiO <sub>3</sub> . Advanced Electronic Materials, 2017, 3, 1700134.	2.6	11
74	Ferroelectric critical size and vortex domain structures of PbTiO <sub>3</sub> nanodots: A density functional theory study. Journal of Applied Physics, 2018, 123, .	1.1	11
75	Chiral Selectivity of Unusual Helimagnetic Transition in Iron Nanotubes: Chirality Makes Quantum Helimagnets. Nano Letters, 2013, 13, 2792-2797.	4.5	10
76	Electron-beam irradiation alters bond strength in zinc oxide single crystal. Applied Physics Letters, 2020, 116, .	1.5	10
77	Atomistic investigation on the conversion of plastic work to heat in high-rate shear deformation. International Journal of Plasticity, 2022, 149, 103158.	4.1	10
78	Flexoelectric properties of multilayer two-dimensional material MoS <sub>2</sub> . Journal Physics D: Applied Physics, 2022, 55, 125302.	1.3	10
79	Local suppression of ferroelectricity at PbTiO <sub>3</sub> surface steps: a density functional theory study. Journal of Physics Condensed Matter, 2012, 24, 045903.	0.7	9
80	Chiral selectivity of improper ferroelectricity in single-wall PbTiO <sub>3</sub> . Physical Review B, 2014, 89, .	1.1	9
81	Strain-mediated multilevel ferroelectric random access memory operating through a magnetic field. RSC Advances, 2014, 4, 45382-45388.	1.7	9
82	Periodically-arrayed ferroelectric nanostructures induced by dislocation structures in strontium titanate. Physical Chemistry Chemical Physics, 2019, 21, 22756-22762.	1.3	9
83	Electrocaloric effect enhancement in compositionally graded ferroelectric thin films driven by a needle-to-vortex domain structure transition. Journal Physics D: Applied Physics, 2021, 54, 255307.	1.3	9
84	Emergence of non-trivial polar topologies hidden in singular stress field in SrTiO <sub>3</sub> : topological strain-field engineering. Journal of Physics Condensed Matter, 2021, 33, 505301.	0.7	9
85	Criterion of mechanical instabilities for dislocation structures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 681-687.	2.6	8
86	Self-shaping of bioinspired chiral composites. Acta Mechanica Sinica/Lixue Xuebao, 2014, 30, 533-539.	1.5	8
87	Energy storage and dissipation of elastic-plastic deformation under shock compression: Simulation and Analysis. Mechanics of Materials, 2021, 158, 103876.	1.7	8
88	Defect engineering for nontrivial multiferroic orders in SrTiO <sub>3</sub> . Physical Review Materials, 2020, 4, .	0.9	8
89	Strain-induced phase transitions in multiferroic BiFeO <sub>3</sub> . Physical Review Letters, 2012, 108, 177201.	0.9	7
90	Strain-induced polarity switching of magnetic vortex in Fe <sub>1-x</sub> Ga <sub>x</sub> alloys with different compositions. Journal of Applied Physics, 2014, 115, .	1.1	7

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91	Hybrid improper ferroelectricity in SrZrO <sub>3</sub> /BaZrO <sub>3</sub> superlattice. Physical Chemistry Chemical Physics, 2016, 18, 24024-24032.	1.3	7
92	Multiferroic Phases and Transitions in Ferroelectric Lead Titanate Nanodots. Scientific Reports, 2017, 7, 45373.	1.6	7
93	Continuum thermodynamics of unusual domain evolution-induced toughening effect in nanocracked strontium titanate. Engineering Fracture Mechanics, 2018, 190, 232-244.	2.0	7
94	Beyond conventional nonlinear fracture mechanics in graphene nanoribbons. Nanoscale, 2020, 12, 18363-18370.	2.8	7
95	Ab Initio Study of Ferroelectric Critical Size of SnTe Low-Dimensional Nanostructures. Nanomaterials, 2020, 10, 732.	1.9	7
96	Effects of chirality and surface stresses on the bending and buckling of chiral nanowires. Journal Physics D: Applied Physics, 2014, 47, 015302.	1.3	6
97	Intrinsic and extrinsic effects on the electrotoroidic switching in a ferroelectric notched nanodot by a homogeneous electric field. Physical Chemistry Chemical Physics, 2019, 21, 25011-25022.	1.3	6
98	Enhancement of electromechanical properties in (011) lead-free ferroelectric nanocomposites with multiphase coexistence. Composites Communications, 2020, 22, 100540.	3.3	6
99	Ferrotoroidic polarons in antiferrodistortive $\text{SrTiO}_3$ . Physical Review B, 2020, 101, .	1.1	6
100	Shock response and defect evolution of copper single crystals at room and elevated temperatures. Modelling and Simulation in Materials Science and Engineering, 2021, 29, 045006.	0.8	6
101	Ferroelectricity at a junction structure of a 180° domain wall and a (001) surface in PbTiO <sub>3</sub> : A density functional theory study. Physica B: Condensed Matter, 2013, 410, 22-27.	1.3	5
102	Giant magnetoelectric effect at the graphone/ferroelectric interface. Scientific Reports, 2018, 8, 12448.	1.6	5
103	Interlaminar Fracture Toughness Measurement of Multilayered 2D Thermoelectric Materials Bi <sub>2</sub> Te <sub>3</sub> by a Tapered Cantilever Bending Experiment. Experimental Mechanics, 0, , 1.	1.1	5
104	Multiphysics in Nanostructures. Nanostructure Science and Technology, 2017, , .	0.1	5
105	Multiferroic Transitions and Misfit Phase Diagram in Oxygen-Deficient Epitaxial (111) PbTiO <sub>3</sub> . Advanced Electronic Materials, 2016, 2, 1600113.	2.6	4
106	Phase field simulations on domain switching-induced toughening in ferromagnetic materials. European Journal of Mechanics, A/Solids, 2017, 65, 205-211.	2.1	4
107	Topological ferroelectric nanostructures induced by mechanical strain in strontium titanate. Physical Chemistry Chemical Physics, 2019, 21, 22420-22428.	1.3	4
108	An experimental study on atomic-level unified criterion for brittle fracture. International Journal of Solids and Structures, 2020, 206, 1-8.	1.3	4

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109	Ferroc dislocations in paraelectric $\text{SrTiO}_3$ . Physical Review B, 2021, 103, .	1.1	4
110	Prediction of tunable magnetoelectric properties in compositionally graded ferroelectric/ferromagnetic laminated nanocomposites. Applied Physics Letters, 2021, 118, .	1.5	4
111	Fracture Mechanics at Atomic Scales. Advanced Structured Materials, 2015, , 379-396.	0.3	4
112	In situ TEM observation of nanodomain mechanics in barium titanate under external loads. Physical Review Materials, 2020, 4, .	0.9	4
113	Development of Multi-Physics Instability Criterion for Atomic Structures and Application to Domain Switching in Ferroelectrics under External Electric Field. Zairyo/Journal of the Society of Materials Science, Japan, 2012, 61, 155-161.	0.1	4
114	Development of Efficient Instability Analysis Method for Atomic Structures Using Linear Elements and Its Application to Amorphous Metal. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2008, 74, 1328-1335.	0.2	3
115	Development of Efficient Instability Analysis Method for Atomic Structures Using Linear Elements and Its Application to Amorphous Metal. Journal of Solid Mechanics and Materials Engineering, 2009, 3, 807-818.	0.5	3
116	First-principles study of nanometer-sharp domain walls in ferromagnetic Fe monolayers under in-plane strain. Journal of Physics Condensed Matter, 2012, 24, 095303.	0.7	3
117	Ab initio study of shear strain effects on ferroelectricity at $\text{PbTiO}_3$ thin films. Surface Science, 2012, 606, 1331-1339.	0.8	3
118	Unusual domain evolution in semiconducting ferroelectrics: A phase field study. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 1643-1648.	0.9	3
119	Hybrid functional study on the ferroelectricity of domain walls with O-vacancies in $\text{PbTiO}_3$ . Mechanical Engineering Journal, 2015, 2, 15-00037-15-00037.	0.2	3
120	Interplay of coupling between strain and rotation in ferroelectric $\text{SrZrO}_3/\text{SrTiO}_3$ superlattices. Journal of Physics Condensed Matter, 2015, 27, 385901.	0.7	3
121	Critical dimensional limit of continuum fracture mechanics for dislocation emission. Engineering Fracture Mechanics, 2016, 163, 108-116.	2.0	3
122	Investigation into the Breakdown of Continuum Fracture Mechanics at the Nanoscale: Synthesis of Recent Results on Silicon. Structural Integrity, 2019, , 205-210.	0.8	3
123	Thermomechanical conversion in high-rate plastic deformation of nanotwinned polycrystalline copper. Journal of Thermal Stresses, 2022, 45, 65-80.	1.1	3
124	Ultrascale Brittleness Initiated from a Dislocation in $\text{SrTiO}_3$ . Nano Letters, 2022, 22, 2077-2084.	4.5	3
125	Development of Interatomic Potential for $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ Based on Shell Model. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2006, 72, 817-822.	0.2	2
126	Critical Thickness for Formation of Fatigue Dislocation Structures: A Discrete Dislocation Dynamics Study. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2012, 78, 1242-1249.	0.2	2



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127	Multi-physics analysis of nano-structured ferroelectrics by first-principles simulations. Acta Mechanica, 2013, 224, 1261-1270.	1.1	2
128	Dynamical topology in ferroelectric nanostructures by $12[11\bar{0}](110)$ dislocations in SrTiO <sub>3</sub> . Physical Review B, 2021, 103, .	1.1	2
129	Antiferroelectric and antiferrodistortive phase transitions in Ruddlesden-Popper Pb <sub>2</sub> TiO <sub>4</sub> from first-principles. Coupled Systems Mechanics, 2017, 6, 29-40.	0.4	2
130	Abnormal Electromechanical Property of Nonlinearly Graded Lead-Free Ferroelectric Thin Films. Advanced Theory and Simulations, 2022, 5, 2100370.	1.3	2
131	Instability Mode Analysis of Dislocation Nucleation from Notch Based on Atomistic Model : Instability Activation Mechanism under Finite Temperature. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 1247-1254.	0.2	1
132	Simplified Analysis of Mechanical Instability in Three-dimensional Atomic Components and Its Application to Nanoscale Crack. Journal of Solid Mechanics and Materials Engineering, 2010, 4, 1071-1082.	0.5	1
133	Mechanical Instability Criterion of Dislocation Structures Based on Discrete Dislocation Dynamics. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2010, 76, 1721-1728.	0.2	1
134	First-Principles Study of Ferroelectric-Ferromagnetic Coupling in Multiferroic BiFeO <sub>3</sub> . Zairyo/Journal of the Society of Materials Science, Japan, 2014, 63, 168-173.	0.1	1
135	Multi-physics properties in ferroelectric nanostructure. Mechanical Engineering Reviews, 2014, 1, SMM0009-SMM0009.	4.7	1
136	Reversible control of intrinsic shear strength of a ZnO single crystal through electron-beam-induced hole state. Journal of Materials Research, 0, , 1.	1.2	1
137	A unified atomic energy release rate criterion for nonlinear brittle fracture in graphene nanoribbons. International Journal of Solids and Structures, 2022, 234-235, 111260.	1.3	1
138	Strain Engineering on Nanosemiconductors. Nanostructure Science and Technology, 2017, , 67-96.	0.1	1
139	632 Ab initio study of stress-induced domain switching in PbTiO <sub>3</sub> . The Proceedings of the Materials and Mechanics Conference, 2007, 2007, 489-490.	0.0	0
140	First-principles Investigation of Edged Ferroelectric PbTiO <sub>3</sub> Nanowires and the Role of Axial Strain. Materials Research Society Symposia Proceedings, 2009, 1199, 147.	0.1	0
141	Fracture Nano-Mechanics : 1st Report, Interface Strength of Nano-Components(<Special Issue>Thermal) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 1. Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 778-783.	0.2	0
142	Fracture Nano-Mechanics : 2nd Report, Strength of Nano-Elements(<Special Issue>Thermal and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 1. Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 784-791.	0.2	0
143	Multi-Physics Properties in Ferroelectric Nanowires and Related Structures from First-Principles. , 2010, , .		0
144	Periodically-arrayed ferroelectric nanostructures induced by strain concentration in SrTiO <sub>3</sub> . Transactions of the JSME (in Japanese), 2019, 85, 19-00175-19-00175.	0.1	0

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145	Deformation mode dependence of an exothermic chemical reaction in Ti/Si multilayered nanofilms. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 796, 140021.	2.6	0
146	An Atomic-Level Unified Criterion for Brittle Fracture. Structural Integrity, 2020, , 334-336.	0.8	0
147	Ferroelectric nanoscale logic gates by mixed dislocations in $\text{SrTiO}_3$ . Physical Review B, 2021, 104, .		
148	516 Development of Interatomic Potential for $\text{Pb}(\text{Zr,Ti})\text{O}_3$ Based on Shell model. The Proceedings of Conference of Kansai Branch, 2005, 2005.80, _5-37_-_5-38_.	0.0	0
149	272 Ab initio study of strain effects on ferroelectricity at $\text{PbTiO}_3$ surface. The Proceedings of the Computational Mechanics Conference, 2006, 2006.19, 629-630.	0.0	0
150	811 Development of Interatomic Potential for $\text{PbTiO}_3$ Based on Shell model. The Proceedings of the Computational Mechanics Conference, 2007, 2007.20, 263-264.	0.0	0
151	OS1203 First-principles Investigation on Domain Switching Mechanism in Lead Titanate. The Proceedings of the Materials and Mechanics Conference, 2008, 2008, _OS1203-1_-_OS1203-2_.	0.0	0
152	236 Development of Efficient Instability Analysis Method for Atomic Structures Using Linear Elements and Its Application to Amorphous Metal. The Proceedings of the Computational Mechanics Conference, 2008, 2008.21, 456-457.	0.0	0
153	OS0418 Ab initio study of ferroelectricity in edged $\text{PbTiO}_3$ nanowires under axial strain. The Proceedings of the Materials and Mechanics Conference, 2008, 2008, _OS0418-1_-_OS0418-2_.	0.0	0
154	210 Development of Shell Model Potential for $\text{PbTiO}_3$ and Applicability to Surfaces and Domain Walls. The Proceedings of the Computational Mechanics Conference, 2008, 2008.21, 149-150.	0.0	0
155	M2-2 Multi-physics Analysis on Ferroelectric $\text{PbTiO}_3$ Nanowires from First-principles (M2) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 2009, 2009.1, 37-38.	0.0	0
156	T0301-2-5 Development of Evaluation Method for Mechanical Instability Using Linear Elements and Its Application to Cracked Atomic Structure. The Proceedings of the JSME Annual Meeting, 2009, 2009.8, 53-54.	0.0	0
157	1034 Ab initio study of multi-physics properties between magnetism and mechanical strain at Fe (001) thin films. The Proceedings of the Computational Mechanics Conference, 2009, 2009.22, 300-301.	0.0	0
158	1030 Ab initio study of ferroelectricity at $\text{PbTiO}_3$ surface step. The Proceedings of the Computational Mechanics Conference, 2009, 2009.22, 292-293.	0.0	0
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