

Daesu Lee

List of Publications by Year in descending order

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69
papers

3,108
citations

257450

24
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155660

55
g-index

71
all docs

71
docs citations

71
times ranked

4234
citing authors

#	ARTICLE	IF	CITATIONS
1	Giant Flexoelectric Effect in Ferroelectric Epitaxial Thin Films. Physical Review Letters, 2011, 107, 057602.	7.8	369
2	Polarity control of carrier injection at ferroelectric/metal interfaces for electrically switchable diode and photovoltaic effects. Physical Review B, 2011, 84, .	3.2	279
3	Ferroelectrically tunable magnetic skyrmions in ultrathin oxide heterostructures. Nature Materials, 2018, 17, 1087-1094.	27.5	265
4	Emergence of room-temperature ferroelectricity at reduced dimensions. Science, 2015, 349, 1314-1317.	12.6	259
5	Isostructural metal-insulator transition in VO ₂ . Science, 2018, 362, 1037-1040.	12.6	158
6	Flexoelectric Effect in the Reversal of Self-Polarization and Associated Changes in the Electronic Functional Properties of BiFeO ₃ Thin Films. Advanced Materials, 2013, 25, 5643-5649.	21.0	133
7	Multilevel Data Storage Memory Using Deterministic Polarization Control. Advanced Materials, 2012, 24, 402-406.	21.0	129
8	Epitaxial Stabilization of a New Multiferroic Hexagonal Phase of TbMnO ₃ Thin Films. Advanced Materials, 2006, 18, 3125-3129.	21.0	95
9	Sharpened VO ₂ Phase Transition via Controlled Release of Epitaxial Strain. Nano Letters, 2017, 17, 5614-5619.	9.1	93
10	Flexoelectric Control of Defect Formation in Ferroelectric Epitaxial Thin Films. Advanced Materials, 2014, 26, 5005-5011.	21.0	84
11	Active Control of Ferroelectric Switching Using Defect-Dipole Engineering. Advanced Materials, 2012, 24, 6490-6495.	21.0	76
12	Electronic structures of hexagonal RMnO ₃ (R=Gd, Tb, Dy, and Ho) thin films: Optical spectroscopy and first-principles calculations. Physical Review B, 2008, 77, .	3.2	75
13	Correlated polarization switching in the proximity of a domain wall . Physical Review B, 2010, 82, .	3.2	65
14	Giant flexoelectric effect through interfacial strain relaxation. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 4944-4957.	3.4	65
15	Enhanced flexoelectricity at reduced dimensions revealed by mechanically tunable quantum tunnelling. Nature Communications, 2019, 10, 537.	12.8	64
16	Multiferroic properties of epitaxially stabilized hexagonal DyMnO ₃ thin films. Applied Physics Letters, 2007, 90, 012903.	3.3	63
17	Flexoelectric Rectification of Charge Transport in Strain-Graded Dielectrics. Nano Letters, 2012, 12, 6436-6440.	9.1	57
18	Physical properties of multiferroic hexagonal HoMnO ₃ thin films. Applied Physics Letters, 2007, 90, 142902.	3.3	46

#	ARTICLE	IF	CITATIONS
19	Optical spectroscopic investigation on the coupling of electronic and magnetic structure in multiferroic hexagonal $R\text{MnO}_3$ thin films. Applied Physics Letters, 2007, 90, 182504.	3.2	41
20	Epitaxial stabilization of artificial hexagonal GdMnO_3 thin films and their magnetic properties. Applied Physics Letters, 2007, 90, 182504.	3.3	40
21	Continuous Control of Charge Transport in Bi-deficient BiFeO_3 Films Through Local Ferroelectric Switching. Advanced Functional Materials, 2012, 22, 4962-4968.	14.9	40
22	Tunneling Hot Spots in Ferroelectric SrTiO_3 . Nano Letters, 2018, 18, 491-497.	9.1	30
23	Double polarization hysteresis loop induced by the domain pinning by defect dipoles in HoMnO_3 thin films. Physical Review B, 2010, 81, .	3.2	26
24	Polarity-dependent kinetics of ferroelectric switching in epitaxial $\text{BiFeO}_3(111)$ capacitors. Applied Physics Letters, 2011, 99, 012905.	3.3	25
25	Stabilizing hidden room-temperature ferroelectricity via a metastable atomic distortion pattern. Nature Communications, 2020, 11, 4944.	12.8	25
26	Energy-level engineering of self-assembled quantum dots by using AlGaAs alloy cladding layers. Journal of Applied Physics, 2000, 87, 241-244.	2.5	24
27	Magnon drag effect as the dominant contribution to the thermopower in $\text{Bi}_{0.5}\text{La}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$ (0.1% $x=0.4$). Journal of Applied Physics, 2008, 103, .	2.5	24
28	Unconventional anomalous Hall effect from antiferromagnetic domain walls of $\text{Bi}_{0.5}\text{La}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$ thin films. Applied Physics Letters, 2017, 111, .	3.2	24
29	Epitaxial VO_2 thin film-based radio-frequency switches with thermal activation. Applied Physics Letters, 2017, 111, .	3.3	22
30	Oxygen vacancy induced re-entrant spin glass behavior in multiferroic ErMnO_3 thin films. Applied Physics Letters, 2008, 93, .	3.3	21
31	Colossal flexoresistance in dielectrics. Nature Communications, 2020, 11, 2586.	12.8	21
32	Homological percolation transitions in growing simplicial complexes. Chaos, 2021, 31, 041102.	2.5	21
33	Formation of induced anisotropy in amorphous SmFe based thin films by field sputtering. Journal of Applied Physics, 2000, 87, 5801-5803.	2.5	20
34	Charge state of vacancy defects in Eu-doped GaN. Physical Review B, 2017, 96, .	3.2	20
35	Raman scattering studies of the magnetic ordering in hexagonal HoMnO_3 thin films. Journal of Raman Spectroscopy, 2010, 41, 983-988.	2.5	19
36	Thickness dependent magnetic properties of BiFeO_3 thin films prepared by pulsed laser deposition. Materials Letters, 2011, 65, 2786-2788.	2.6	19

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37	Flexoelectric control of physical properties by atomic force microscopy. Applied Physics Reviews, 2021, 8, .	11.3	19
38	Mixed Triboelectric and Flexoelectric Charge Transfer at the Nanoscale. Advanced Science, 2021, 8, e2101793.	11.2	18
39	Evidence of the Bi ³⁺ lone-pair effect on the charge-ordering state: resistivity and thermoelectric power of Bi _{0.5} La _{0.5} Sr _{0.5} MnO ₃ (0.0% <i>y</i> →0.4). ^{1.8} Journal of Physics Condensed Matter, 2007, 19, 296205.	1.8	17
40	Study of spin-ordering and spin-reorientation transitions in hexagonal manganites through Raman spectroscopy. Scientific Reports, 2015, 5, 13366.	3.3	16
41	Impact of vacancy clusters on characteristic resistance change of nonstoichiometric strontium titanate nano-film. Applied Physics Letters, 2014, 104, .	3.3	15
42	Raman scattering studies of hexagonal rare-earth RMnO ₃ (<i>R</i> = Tb, Dy, Ho, Er) thin films. Journal of Raman Spectroscopy, 2011, 42, 1774-1779.	2.5	14
43	Flexoelectricity in thin films and membranes of complex oxides. APL Materials, 2020, 8, .	5.1	14
44	Identification of a functional point defect in SrTiO ₃ . Physical Review Materials, 2018, 2, .	2.4	14
45	Resonant A ₁ phonon and four-magnon Raman scattering in hexagonal HoMnO ₃ thin film. New Journal of Physics, 2010, 12, 073046.	2.9	13
46	Oxygen Partial Pressure during Pulsed Laser Deposition: Deterministic Role on Thermodynamic Stability of Atomic Termination Sequence at SrRuO ₃ /BaTiO ₃ Interface. ACS Applied Materials & Interfaces, 2017, 9, 27305-27312.	8.0	12
47	Optical studies of carrier and phonon dynamics in Ga _{1-x} MnxAs. Journal of Applied Physics, 2005, 98, 113509.	2.5	9
48	Suppressed magnetoelectric effect in epitaxially grown multiferroic Pb(Zr _{0.57} Ti _{0.43})O ₃ –Pb(Fe _{2/3} W _{1/3})O ₃ solid-solution thin films. Journal Physics D: Applied Physics, 2010, 43, 455403.	2.1	9
49	Spin exchange interactions in hexagonal manganites RMnO ₃ (<i>R</i> = Tb, Dy, Ho, Er) epitaxial thin films. Applied Physics Letters, 2011, 99, .	3.3	9
50	A Raman Study of the Origin of Oxygen Defects in Hexagonal Manganite Thin Films. Chinese Physics Letters, 2012, 29, 126103.	3.3	9
51	Room-temperature Multiferroic Properties of Pb(Zr _{0.57} Ti _{0.43})O ₃ -Pb(Fe _{0.67} W _{0.33})O ₃ Solid-solution Epitaxial Thin Films. Journal of the Korean Physical Society, 2010, 57, 1914-1918.	0.7	9
52	Effect of annealing conditions on structural and magnetic properties of laser ablated copper ferrite thin films. Journal of Magnetism and Magnetic Materials, 2012, 324, 1814-1817.	2.3	8
53	Growth behavior of artificial hexagonal BaPb _{1-x} Bi _x O ₃ thin films. Journal of Crystal Growth, 2008, 310, 829-835.	2.4	8
54	Growth behavior of artificial hexagonal GdMnO ₃ thin films. Journal of Crystal Growth, 2008, 310, 829-835.	1.5	7

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55	Optimization of laser parameters for the maximum efficiency in the generation of water-window radiation using a liquid nitrogen jet. Applied Physics Letters, 2006, 88, 141501.	3.3	6
56	Tunable band gap in epitaxial ferroelectric Ho(Mn,Ga)O ₃ films. Applied Physics Letters, 2016, 108, .	3.3	6
57	Correlation between magnon and magnetic symmetries of hexagonal RMnO ₃ (R=Er, Ho, Lu). Journal of Molecular Structure, 2016, 1124, 103-109.	3.6	6
58	Electron-Driven Lattice Coupling in Correlated Materials of Low Electron Occupancy. Nano Letters, 2017, 17, 5458-5463.	9.1	6
59	Ferroelectric properties of multiferroic hexagonal ErMnO ₃ thin films. Journal of the Korean Physical Society, 2009, 55, 841-845.	0.7	6
60	Formation of hexagonal phase of TbMnO ₃ thin film and its multiferroic properties. Journal of Materials Research, 2007, 22, 2156-2162.	2.6	5
61	Epitaxial VO ₂ thin-film-based radio-frequency switches with electrical activation. Applied Physics Express, 2017, 10, 091101.	2.4	3
62	Localized spin-flip excitations in hexagonal HoMnO ₃ . Journal of Raman Spectroscopy, 2020, 51, 2298-2304.	2.5	3
63	Surface-induced magnetism in Au particles/clusters. Materials Letters, 2012, 87, 169-171.	2.6	2
64	A compartment model with variable ion channel density on the propagation of action potentials along a nonuniform axon. European Physical Journal B, 2012, 85, 1.	1.5	2
65	In-situ probing of coupled atomic restructuring and metallicity of oxide heterointerfaces induced by polar adsorbates. Applied Physics Letters, 2017, 111, 141604.	3.3	2
66	Thickness-Driven Morphotropic Phase Transition in Metastable Ferroelectric CaTiO ₃ Films. Advanced Electronic Materials, 0, , 2101398.	5.1	2
67	Nanoscale interplay of native point defects near Sr-deficient Sr _x TiO ₃ /SrTiO ₃ interfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	2.1	1
68	Magnetic Ordering Effects on Raman Spectra of Hexagonal Phase of HoMnO ₃ Film (abstract). , 2009, , .		0
69	Raman study of magnetic phase transitions of hexagonal manganites. Proceedings of SPIE, 2014, , .	0.8	0