

# Daesu Lee

## List of Publications by Year in descending order

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69  
papers

3,108  
citations

257450

24  
h-index

155660

55  
g-index

71  
all docs

71  
docs citations

71  
times ranked

4234  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanoscale interplay of native point defects near Sr-deficient Sr <sub>x</sub> TiO <sub>3</sub> /SrTiO <sub>3</sub> interfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	2.1	1
2	Homological percolation transitions in growing simplicial complexes. Chaos, 2021, 31, 041102.	2.5	21
3	Mixed Triboelectric and Flexoelectric Charge Transfer at the Nanoscale. Advanced Science, 2021, 8, e2101793.	11.2	18
4	Flexoelectric control of physical properties by atomic force microscopy. Applied Physics Reviews, 2021, 8, .	11.3	19
5	Stabilizing hidden room-temperature ferroelectricity via a metastable atomic distortion pattern. Nature Communications, 2020, 11, 4944.	12.8	25
6	Localized spin-flip excitations in hexagonal HoMnO <sub>3</sub> . Journal of Raman Spectroscopy, 2020, 51, 2298-2304.	2.5	3
7	Flexoelectricity in thin films and membranes of complex oxides. APL Materials, 2020, 8, .	5.1	14
8	Colossal flexoresistance in dielectrics. Nature Communications, 2020, 11, 2586.	12.8	21
9	Enhanced flexoelectricity at reduced dimensions revealed by mechanically tunable quantum tunnelling. Nature Communications, 2019, 10, 537.	12.8	64
10	Coherent-strained superconducting $\text{BaPb}_{1-x}\text{Bi}_x\text{O}_3$ thin film tunneling hot spots in ferroelectric SrTiO <sub>3</sub> . Nano Letters, 2018, 18, 491-497.	2.4	8
11	Identification of a functional point defect in $\text{SrTiO}_3$ . Physical Review Materials, 2018, 2, .	9.1	30
12	Isostructural metal-insulator transition in VO <sub>2</sub> . Science, 2018, 362, 1037-1040.	12.6	158
13	Ferroelectrically tunable magnetic skyrmions in ultrathin oxide heterostructures. Nature Materials, 2018, 17, 1087-1094.	27.5	265
14	Unconventional anomalous Hall effect from antiferromagnetic domain walls of $\text{N}_2\text{O}$ . Physical Review Materials, 2018, 2, .	3.2	24
15	Electron Lattice Coupling in Correlated Materials of Low Electron Occupancy. Nano Letters, 2017, 17, 5458-5463.	2.4	14
16	Charge state of vacancy defects in Eu-doped GaN. Physical Review B, 2017, 96, .	9.1	6
17	Epitaxial VO <sub>2</sub> thin film-based radio-frequency switches with thermal activation. Applied Physics Letters, 2017, 111, .	3.2	20
18		3.3	22

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19	Oxygen Partial Pressure during Pulsed Laser Deposition: Deterministic Role on Thermodynamic Stability of Atomic Termination Sequence at SrRuO <sub>3</sub> /BaTiO <sub>3</sub> Interface. ACS Applied Materials & Interfaces, 2017, 9, 27305-27312.	8.0	12
20	Sharpened VO <sub>2</sub> Phase Transition via Controlled Release of Epitaxial Strain. Nano Letters, 2017, 17, 5614-5619.	9.1	93
21	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
22	Epitaxial VO <sub>2</sub> thin-film-based radio-frequency switches with electrical activation. Applied Physics Express, 2017, 10, 091101.	2.4	3
23	Tunable band gap in epitaxial ferroelectric Ho(Mn,Ga)O <sub>3</sub> films. Applied Physics Letters, 2016, 108, .	3.3	6
24	Correlation between magnon and magnetic symmetries of hexagonal RMnO <sub>3</sub> (R=Er, Ho, Lu). Journal of Molecular Structure, 2016, 1124, 103-109.	3.6	6
25	Study of spin-ordering and spin-reorientation transitions in hexagonal manganites through Raman spectroscopy. Scientific Reports, 2015, 5, 13366.	3.3	16
26	Emergence of room-temperature ferroelectricity at reduced dimensions. Science, 2015, 349, 1314-1317.	12.6	259
27	Impact of vacancy clusters on characteristic resistance change of nonstoichiometric strontium titanate nano-film. Applied Physics Letters, 2014, 104, .	3.3	15
28	Raman study of magnetic phase transitions of hexagonal manganites. Proceedings of SPIE, 2014, , .	0.8	0
29	Flexoelectric Control of Defect Formation in Ferroelectric Epitaxial Thin Films. Advanced Materials, 2014, 26, 5005-5011.	21.0	84
30	Flexoelectric Effect in the Reversal of Self-Polarization and Associated Changes in the Electronic Functional Properties of BiFeO <sub>3</sub> Thin Films. Advanced Materials, 2013, 25, 5643-5649.	21.0	133
31	Giant flexoelectric effect through interfacial strain relaxation. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 4944-4957.	3.4	65
32	A Raman Study of the Origin of Oxygen Defects in Hexagonal Manganite Thin Films. Chinese Physics Letters, 2012, 29, 126103.	3.3	9
33	Active Control of Ferroelectric Switching Using Defect-Dipole Engineering. Advanced Materials, 2012, 24, 6490-6495.	21.0	76
34	Surface-induced magnetism in Au particles/clusters. Materials Letters, 2012, 87, 169-171.	2.6	2
35	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
36	Flexoelectric Rectification of Charge Transport in Strain-Graded Dielectrics. Nano Letters, 2012, 12, 6436-6440.	9.1	57

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37	Continuous Control of Charge Transport in Bi-deficient BiFeO <sub>3</sub> Films Through Local Ferroelectric Switching. <i>Advanced Functional Materials</i> , 2012, 22, 4962-4968.	14.9	40
38	Effect of annealing conditions on structural and magnetic properties of laser ablated copper ferrite thin films. <i>Journal of Magnetism and Magnetic Materials</i> , 2012, 324, 1814-1817.	2.3	8
39	Multilevel Data Storage Memory Using Deterministic Polarization Control. <i>Advanced Materials</i> , 2012, 24, 402-406.	21.0	129
40	Giant Flexoelectric Effect in Ferroelectric Epitaxial Thin Films. <i>Physical Review Letters</i> , 2011, 107, 057602.	7.8	369
41	Polarity control of carrier injection at ferroelectric/metal interfaces for electrically switchable diode and photovoltaic effects. <i>Physical Review B</i> , 2011, 84, .	3.2	279
42	Thickness dependent magnetic properties of BiFeO <sub>3</sub> thin films prepared by pulsed laser deposition. <i>Materials Letters</i> , 2011, 65, 2786-2788.	2.6	19
43	Raman scattering studies of hexagonal rare-earth RMnO <sub>3</sub> ( <i>R</i> = Tb, Dy, Ho, Er) thin films. <i>Journal of Raman Spectroscopy</i> , 2011, 42, 1774-1779.	2.5	14
44	Spin exchange interactions in hexagonal manganites RMnO <sub>3</sub> ( <i>R</i> = Tb, Dy, Ho, Er) epitaxial thin films. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	9
45	Polarity-dependent kinetics of ferroelectric switching in epitaxial BiFeO <sub>3</sub> (111) capacitors. <i>Applied Physics Letters</i> , 2011, 99, 012905.	3.3	25
46	Raman scattering studies of the magnetic ordering in hexagonal HoMnO <sub>3</sub> thin films. <i>Journal of Raman Spectroscopy</i> , 2010, 41, 983-988.	2.5	19
47	Correlated polarization switching in the proximity of a domain wall. <i>Physical Review B</i> , 2010, 82, .	3.2	65
48	Suppressed magnetoelectric effect in epitaxially grown multiferroic Pb(Zr <sub>0.57</sub> Ti <sub>0.43</sub> )O <sub>3</sub> -Pb(Fe <sub>2/3</sub> W <sub>1/3</sub> )O <sub>3</sub> solid-solution thin films. <i>Journal Physics D: Applied Physics</i> , 2010, 43, 455403.	3.1	9
49	Resonant A <sub>1</sub> phonon and four-magnon Raman scattering in hexagonal HoMnO <sub>3</sub> thin film. <i>New Journal of Physics</i> , 2010, 12, 073046.	2.9	13
50	Double polarization hysteresis loop induced by the domain pinning by defect dipoles in HoMnO <sub>3</sub> thin films. <i>Physical Review B</i> , 2010, 81, .	3.2	26
51	Room-temperature Multiferroic Properties of Pb(Zr <sub>0.57</sub> Ti <sub>0.43</sub> )O <sub>3</sub> -Pb(Fe <sub>0.67</sub> W <sub>0.33</sub> )O <sub>3</sub> Solid-solution Epitaxial Thin Films. <i>Journal of the Korean Physical Society</i> , 2010, 57, 1914-1918.	0.7	9
52	Magnetic Ordering Effects on Raman Spectra of Hexagonal Phase of HoMnO <sub>3</sub> Film (abstract)., 2009, .		0
53	Ferroelectric properties of multiferroic hexagonal ErMnO <sub>3</sub> thin films. <i>Journal of the Korean Physical Society</i> , 2009, 55, 841-845.	0.7	6
54	Growth behavior of artificial hexagonal GdMnO <sub>3</sub> thin films. <i>Journal of Crystal Growth</i> , 2008, 310, 829-835.	1.5	7

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55	Magnon drag effect as the dominant contribution to the thermopower in $\text{Bi}_{0.5}\text{La}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$ ( $0.1 \times 0.4$ ). Journal of Applied Physics, 2008, 103, .	2.5	24
56	Electronic structures of hexagonal $\text{RMnO}_3$ (R=Gd, Tb, Dy, and Ho) thin films: Optical spectroscopy and first-principles calculations. Physical Review B, 2008, 77, .	3.2	75
57	Optical spectroscopic investigation on the coupling of electronic and magnetic structure in multiferroic hexagonal $\text{R}_2\text{MnO}_5$ ( $0.1 \times 0.4$ ). Journal of Applied Physics, 2008, 103, .	3.2	41
58	Oxygen vacancy induced re-entrant spin glass behavior in multiferroic $\text{ErMnO}_3$ thin films. Applied Physics Letters, 2008, 93, .	3.3	21
59	Evidence of the $\text{Bi}^{3+}$ lone-pair effect on the charge-ordering state: resistivity and thermoelectric power of $\text{Bi}_{0.5}\text{La}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$ ( $0.1 \times 0.4$ ). Journal of Physics Condensed Matter, 2007, 19, 296205.	1.8	17
60	Multiferroic properties of epitaxially stabilized hexagonal $\text{DyMnO}_3$ thin films. Applied Physics Letters, 2007, 90, 012903.	3.3	63
61	Epitaxial stabilization of artificial hexagonal $\text{GdMnO}_3$ thin films and their magnetic properties. Applied Physics Letters, 2007, 90, 182504.	3.3	40
62	Physical properties of multiferroic hexagonal $\text{HoMnO}_3$ thin films. Applied Physics Letters, 2007, 90, 142902.	3.3	46
63	Formation of hexagonal phase of $\text{TbMnO}_3$ thin film and its multiferroic properties. Journal of Materials Research, 2007, 22, 2156-2162.	2.6	5
64	Epitaxial Stabilization of a New Multiferroic Hexagonal Phase of $\text{TbMnO}_3$ Thin Films. Advanced Materials, 2006, 18, 3125-3129.	21.0	95
65	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
66	Optical studies of carrier and phonon dynamics in $\text{Ga}_{1-x}\text{Mn}_x\text{As}$ . Journal of Applied Physics, 2005, 98, 113509.	2.5	9
67	Energy-level engineering of self-assembled quantum dots by using $\text{AlGaAs}$ alloy cladding layers. Journal of Applied Physics, 2000, 87, 241-244.	2.5	24
68	Formation of induced anisotropy in amorphous $\text{Sm-Fe}$ based thin films by field sputtering. Journal of Applied Physics, 2000, 87, 5801-5803.	2.5	20
69	Thickness-Driven Morphotropic Phase Transition in Metastable Ferroelectric $\text{CaTiO}_3$ Films. Advanced Electronic Materials, 0, , 2101398.	5.1	2