

Hyun Myung Jang

List of Publications by Year in descending order

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59
papers

2,501
citations

201674

27
h-index

197818

49
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61
all docs

61
docs citations

61
times ranked

4227
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum-confinement effect on the linewidth broadening of metal halide perovskite-based quantum dots. <i>Journal of Physics Condensed Matter</i> , 2021, 33, .	1.8	4
2	Proton-transfer-induced 3D/2D hybrid perovskites suppress ion migration and reduce luminance overshoot. <i>Nature Communications</i> , 2020, 11, 3378.	12.8	108
3	Enhancing photoluminescence quantum efficiency of metal halide perovskites by examining luminescence-limiting factors. <i>APL Materials</i> , 2020, 8, .	5.1	22
4	Electroluminescence of Perovskite Nanocrystals with Ligand Engineering. <i>Trends in Chemistry</i> , 2020, 2, 837-849.	8.5	22
5	Facet-Dependent <i>in Situ</i> Growth of Nanoparticles in Epitaxial Thin Films: The Role of Interfacial Energy. <i>Journal of the American Chemical Society</i> , 2019, 141, 7509-7517.	13.7	89
6	Lattice strain-enhanced exsolution of nanoparticles in thin films. <i>Nature Communications</i> , 2019, 10, 1471.	12.8	114
7	High Rate Li-Ion Batteries with Cation-Disordered Cathodes. <i>Joule</i> , 2019, 3, 1064-1079.	24.0	12
8	Strategic Design and Utilization of Molecular Flexibility for Straddling the Application of Organic Superbases: A DFT Study. <i>ChemistrySelect</i> , 2018, 3, 837-842.	1.5	10
9	Enhanced Switchable Ferroelectric Photovoltaic Effects in Hexagonal Ferrite Thin Films via Strain Engineering. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 1846-1853.	8.0	47
10	Spin-coupling-induced Improper Polarizations and Latent Magnetization in Multiferroic BiFeO ₃ . <i>Scientific Reports</i> , 2018, 8, 405.	3.3	5
11	New Class of 3.7 V Fe-Based Positive Electrode Materials for Na-Ion Battery Based on Cation-Disordered Polyanion Framework. <i>Chemistry of Materials</i> , 2018, 30, 6346-6352.	6.7	23
12	Electron-hole separation in ferroelectric oxides for efficient photovoltaic responses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 6566-6571.	7.1	40
13	Switchable ferroelectric photovoltaic effects in epitaxial <i>h</i> -RFeO ₃ thin films. <i>Nanoscale</i> , 2018, 10, 13261-13269.	5.6	35
14	Non-volatile ferroelectric control of room-temperature electrical transport in perovskite oxide semiconductor La:BaSnO ₃ . <i>Journal of Materials Chemistry C</i> , 2017, 5, 11763-11768.	5.5	15
15	Low-Temperature Solid-State Synthesis of High-Purity BiFeO ₃ Ceramic for Ferroic Thin-Film Deposition. <i>Inorganic Chemistry</i> , 2017, 56, 11911-11916.	4.0	24
16	Î ² -CuGaO ₂ as a Strong Candidate Material for Efficient Ferroelectric Photovoltaics. <i>Chemistry of Materials</i> , 2017, 29, 7596-7603.	6.7	28
17	Influence of tensile-strain-induced oxygen deficiency on metal-insulator transitions in NdNiO ₃ epitaxial thin films. <i>Scientific Reports</i> , 2017, 7, 4681.	3.3	34
18	Implementing Room-Temperature Multiferroism by Exploiting Hexagonal-Orthorhombic Morphotropic Phase Coexistence in LuFeO ₃ Thin Films. <i>Advanced Materials</i> , 2016, 28, 7430-7435.	21.0	31

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19	Anomalous domain periodicity observed in ferroelectric PbTiO ₃ nanodots having 180° stripe domains. <i>Scientific Reports</i> , 2016, 6, 26644.	3.3	10
20	The nature of hydrogen-bonding interaction in the prototypic hybrid halide perovskite, tetragonal CH ₃ NH ₃ PbI ₃ . <i>Scientific Reports</i> , 2016, 6, 21687.	3.3	123
21	Resolving the Physical Origin of Octahedral Tilting in Halide Perovskites. <i>Chemistry of Materials</i> , 2016, 28, 4259-4266.	6.7	211
22	Modulation of metal-insulator transitions by field-controlled strain in NdNiO ₃ /SrTiO ₃ /PMN-PT (001) heterostructures. <i>Scientific Reports</i> , 2016, 6, 22228.	3.3	25
23	Hydrogen-doped Brookite TiO ₂ Nanobullets Array as a Novel Photoanode for Efficient Solar Water Splitting. <i>Scientific Reports</i> , 2016, 6, 36099.	3.3	33
24	Ferroelectric polarization switching with a remarkably high activation energy in orthorhombic GaFeO ₃ thin films. <i>NPG Asia Materials</i> , 2016, 8, e242-e242.	7.9	72
25	Modulated spin structure responsible for the magnetic-field-induced polarization switching in multiferroic TbMn ₂ O ₅ . <i>Physical Review B</i> , 2015, 91, .	3.2	5
26	Enhanced photocatalytic activity of {101}-oriented bipyramidal TiO ₂ agglomerates through interparticle charge transfer. <i>Applied Catalysis B: Environmental</i> , 2015, 176-177, 76-82.	20.2	28
27	Switchable Photovoltaic Effects in Hexagonal Manganite Thin Films Having Narrow Band Gaps. <i>Chemistry of Materials</i> , 2015, 27, 7425-7432.	6.7	67
28	SnS ₄ , SbS ₄ , and AsS ₃ Metal Chalcogenide Surface Ligands: Couplings to Quantum Dots, Electron Transfers, and All-Inorganic Multilayered Quantum Dot Sensitized Solar Cells. <i>Journal of the American Chemical Society</i> , 2015, 137, 13827-13835.	13.7	32
29	Imprint Control of Nonvolatile Shape Memory with Asymmetric Ferroelectric Multilayers. <i>Chemistry of Materials</i> , 2014, 26, 6911-6914.	6.7	17
30	Quantum Dots: Bandgap Tuning with Thermal Residual Stresses Induced in a Quantum Dot (Small) Tj ETQqO O 0 rgBT /Overlock 10 Tf 50	10.0	0
31	Bandgap Tuning with Thermal Residual Stresses Induced in a Quantum Dot. <i>Small</i> , 2014, 10, 3678-3684.	10.0	11
32	Mode coupling between nonpolar and polar phonons as the origin of improper ferroelectricity in hexagonal LuMnO ₃ . <i>Journal of Materials Chemistry C</i> , 2014, 2, 4126-4132.	5.5	13
33	Multiferroism in hexagonally stabilized TmFeO ₃ thin films below 120 K. <i>Journal of Materials Chemistry C</i> , 2014, 2, 4521-4525.	5.5	24
34	A tri-functional TiO ₂ photoelectrode: single crystalline nanowires directly grown on nanoparticles for dye-sensitized solar cells. <i>RSC Advances</i> , 2014, 4, 943-947.	3.6	2
35	Pulsed laser deposition of Pb(Zr _{0.52} Ti _{0.48})O ₃ thin film on cobalt ferrite nano-seed layered Pt(111)/Si substrate: effect of oxygen pressure. <i>Phase Transitions</i> , 2014, 87, 666-675.	1.3	3
36	Quantum dot-sensitized mesoporous spherical TiO ₂ paste with cyclic calcination for photoelectrochemical cells. <i>Electrochimica Acta</i> , 2014, 132, 98-102.	5.2	2

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37	Hybrid photoelectrode by using vertically aligned rutile TiO ₂ nanowires inlaid with anatase TiO ₂ nanoparticles for dye-sensitized solar cells. <i>Materials Chemistry and Physics</i> , 2014, 143, 1440-1445.	4.0	5
38	Broadband light confinement using a hierarchically structured TiO ₂ multi-layer for dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2013, 1, 9707.	10.3	29
39	(111)-Oriented Pb(Zr _{0.52} Ti _{0.48})O ₃ thin film on Pt(111)/Si substrate using CoFe ₂ O ₄ nano-seed layer by pulsed laser deposition. <i>Journal of Materials Science: Materials in Electronics</i> , 2013, 24, 3736-3743.	2.2	5
40	Room-temperature ferroelectricity in SrTiO ₃ nanodots array formed by an <i>ac</i> -bias field. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	4
41	Artificially imposed hexagonal ferroelectricity in canted antiferromagnetic YFeO ₃ epitaxial thin films. <i>Materials Chemistry and Physics</i> , 2013, 138, 929-936.	4.0	29
42	Aerosol OT/Water System Coupled with Triiodide/Iodide (I ₃ ⁻ /I ⁻) Redox Electrolytes for Highly Efficient Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , 2013, 3, 1344-1350.	19.5	18
43	Ferroelectric ground state and polarization-switching path of orthorhombic YMnO ₃ with coexisting E-type and cycloidal spin phases. <i>Physical Review B</i> , 2013, 88, .	3.2	6
44	Lee <i>et al.</i> Reply. <i>Physical Review Letters</i> , 2012, 108, .	7.8	38
45	Rhombohedral-orthorhombic morphotropic phase boundary in BiFeO ₃ -based multiferroics: first-principles prediction. <i>Journal of Materials Chemistry</i> , 2012, 22, 1667-1672.	6.7	51
46	A light scattering polymer gel electrolyte for high performance dye-sensitized solar cells. <i>Journal of Materials Chemistry</i> , 2012, 22, 6027.	6.7	14
47	Reduced charge recombination by the formation of an interlayer using a novel dendron coadsorbent in solid-state dye-sensitized solar cells. <i>RSC Advances</i> , 2012, 2, 3467.	3.6	38
48	Structurally Tailored Hexagonal Ferroelectricity and Multiferroism in Epitaxial YbFeO ₃ Thin-Film Heterostructures. <i>Journal of the American Chemical Society</i> , 2012, 134, 1450-1453.	13.7	98
49	Epitaxially Constrained Hexagonal Ferroelectricity and Canted Triangular Spin Order in LuFeO ₃ Thin Films. <i>Chemistry of Materials</i> , 2012, 24, 2426-2428.	6.7	77
50	Size-tunable mesoporous spherical TiO ₂ as a scattering overlayer in high-performance dye-sensitized solar cells. <i>Journal of Materials Chemistry</i> , 2011, 21, 9582.	6.7	119
51	Orbital hybridization as the origin of hexagonal ferroelectricity in BiFeO ₃ . <i>Physical Review Letters</i> , 2011, 107, 117201.	3.2	18
52	Orbital Mixing and Asymmetric Induced Inhomogeneous Ferroelectricity and Spontaneous Magnetization Reversal in SrTiO ₃ . <i>Physical Review Letters</i> , 2011, 107, 117201.	7.8	35
53	Orbital Hybridization and Spontaneous Magnetization Reversal in SrTiO ₃ . <i>Physical Review Letters</i> , 2011, 107, 117201.	7.8	343
54	Tertiary hierarchically structured TiO ₂ for CdS quantum-dot-sensitized solar cells. <i>Electrochimica Acta</i> , 2011, 56, 7371-7376.	5.2	18

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55	In-plane strain control of the magnetic remanence and cation-charge redistribution in CoFe ₂ O ₄ thin film grown on a piezoelectric substrate. Physical Review B, 2010, 81, . Variations of ferroelectric off-centering distortion and d_{31} in La-doped BiFeO ₃ thin films. Physical Review B, 2010, 81, .	3.2	47
56	Softening behavior of the ferroelectric d_{31} near the Curie temperature. Physical Review B, 2009, 80, .	3.2	74
57	Enhanced Magnetization and Modulated Orbital Hybridization in Epitaxially Constrained BiFeO ₃ Thin Films with Rhombohedral Symmetry. Chemistry of Materials, 2009, 21, 5050-5057.	6.7	64
59	Rare earth doped CaSO ₄ luminescence phosphors for applications in novel displays - new recipes. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 565-577.	1.8	18