Hyun Suk Jung

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6129826/publications.pdf

Version: 2024-02-01

221 papers	13,119 citations	26567 56 h-index	27345 106 g-index
224 all docs	224 docs citations	224 times ranked	15891 citing authors

#	Article	IF	Citations
1	High-Efficiency Perovskite Solar Cells. Chemical Reviews, 2020, 120, 7867-7918.	23.0	1,480
2	Perovskite Solar Cells: From Materials to Devices. Small, 2015, 11, 10-25.	5.2	1,210
3	Highly efficient and bending durable perovskite solar cells: toward a wearable power source. Energy and Environmental Science, 2015, 8, 916-921.	15.6	602
4	Superflexible, high-efficiency perovskite solar cells utilizing graphene electrodes: towards future foldable power sources. Energy and Environmental Science, 2017, 10, 337-345.	15.6	391
5	An ultra-thin, un-doped NiO hole transporting layer of highly efficient (16.4%) organicâ€“inorganic hybrid perovskite solar cells. Nanoscale, 2016, 8, 11403-11412.	2.8	307
6	Organolead Halide Perovskites for Low Operating Voltage Multilevel Resistive Switching. Advanced Materials, 2016, 28, 6562-6567.	11.1	285
7	Flexible Perovskite Solar Cells. Joule, 2019, 3, 1850-1880.	11.7	242
8	Nb-Doped TiO₂: A New Compact Layer Material for TiO₂ Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2009, 113, 6878-6882.	1.5	210
9	Preparation of Nanoporous MgO-Coated TiO2Nanoparticles and Their Application to the Electrode of Dye-Sensitized Solar Cells. Langmuir, 2005, 21, 10332-10335.	1.6	191
10	Ferroelectric Polarization in CH₃NH₃PbI₃ Perovskite. Journal of Physical Chemistry Letters, 2015, 6, 1729-1735.	2.1	180
11	Reduced Graphene Oxide/Mesoporous TiO₂ Nanocomposite Based Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 23521-23526.	4.0	180
12	Passivation in perovskite solar cells: A review. Materials Today Energy, 2018, 7, 267-286.	2.5	170
13	Retarding charge recombination in perovskite solar cells using ultrathin MgO-coated TiO₂ nanoparticulate films. Journal of Materials Chemistry A, 2015, 3, 9160-9164.	5.2	167
14	Two-Step Solâ”Gel Method-Based TiO₂ Nanoparticles with Uniform Morphology and Size for Efficient Photo-Energy Conversion Devices. Chemistry of Materials, 2010, 22, 1958-1965.	3.2	166
15	Selective and Efficient Gd-Doped BiVO₄ Photoanode for Two-Electron Water Oxidation to H₂O₂. ACS Energy Letters, 2019, 4, 720-728.	8.8	165
16	Controlling the surface nanostructure of ZnO and Al-doped ZnO thin films using electrostatic spraying for their application in 12% efficient perovskite solar cells. Nanoscale, 2014, 6, 9127.	2.8	161
17	BiVO₄/WO₃/SnO₂ Double-Heterojunction Photoanode with Enhanced Charge Separation and Visible-Transparency for Bias-Free Solar Water-Splitting with a Perovskite Solar Cell. ACS Applied Materials & Interfaces, 2017, 9, 1479-1487.	4.0	158
18	CaSnO₃: An Electrocatalyst for Two-Electron Water Oxidation Reaction to Form H₂O₂. ACS Energy Letters, 2019, 4, 352-357.	8.8	148

#	Article	IF	Citations
19	Dye Sensitized Solar Cells for Economically Viable Photovoltaic Systems. Journal of Physical Chemistry Letters, 2013, 4, 1682-1693.	2.1	146
20	Effect of bidentate and tridentate additives on the photovoltaic performance and stability of perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 4977-4987.	5.2	143
21	Synthesis of Cu₂PO₄OH Hierarchical Superstructures with Photocatalytic Activity in Visible Light. Advanced Functional Materials, 2008, 18, 2154-2162.	7.8	141
22	Niobium Doping Effects on TiO₂ Mesoscopic Electron Transport Layerâ€Based Perovskite Solar Cells. ChemSusChem, 2015, 8, 2392-2398.	3.6	139
23	Ultra-flexible perovskite solar cells with crumpling durability: toward a wearable power source. Energy and Environmental Science, 2019, 12, 3182-3191.	15.6	136
24	Al-Doped ZnO Thin Film: A New Transparent Conducting Layer for ZnO Nanowire-Based Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2010, 114, 7185-7189.	1.5	134
25	Antisolvent with an Ultrawide Processing Window for the Oneâ€Step Fabrication of Efficient and Largeâ€Area Perovskite Solar Cells. Advanced Materials, 2018, 30, e1802763.	11.1	130
26	Selective dissolution of halide perovskites as a step towards recycling solar cells. Nature Communications, 2016, 7, 11735.	5.8	129
27	Control of Osteogenic Differentiation and Mineralization of Human Mesenchymal Stem Cells on Composite Nanofibers Containing Poly[lacticâ€coâ€(glycolic acid)] and Hydroxyapatite. Macromolecular Bioscience, 2010, 10, 173-182.	2.1	101
28	Fully solution-processed transparent electrodes based on silver nanowire composites for perovskite solar cells. Nanoscale, 2016, 8, 6308-6316.	2.8	99
29	Improved carriers injection capacity in perovskite solar cells by introducing A-site interstitial defects. Journal of Materials Chemistry A, 2017, 5, 7905-7911.	5.2	99
30	Observation of Enhanced Hole Extraction in Br Concentration Gradient Perovskite Materials. Nano Letters, 2016, 16, 5756-5763.	4.5	91
31	Crystallographically preferred oriented TiO2 nanotube arrays for efficient photovoltaic energy conversion. Energy and Environmental Science, 2012, 5, 7989.	15.6	88
32	Influence of anatase-rutile phase transformation on dielectric properties of sol-gel derived TiO2 thin films. Journal of Electroceramics, 2006, 16, 447-451.	0.8	87
33	Sustainable lead management in halide perovskite solar cells. Nature Sustainability, 2020, 3, 1044-1051.	11.5	87
34	Surfaceâ€Plasmon Assisted Energy Conversion in Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2011, 1, 415-421.	10.2	86
35	Origin of Hysteresis in CH₃NH₃PbI₃ Perovskite Thin Films. Advanced Functional Materials, 2017, 27, 1701924.	7.8	86
36	A Zn:BiVO₄/Mo:BiVO₄ homojunction as an efficient photoanode for photoelectrochemical water splitting. Journal of Materials Chemistry A, 2019, 7, 9019-9024.	5.2	86

#	Article	IF	Citations
37	In situ observation of hydroxyapatite nanocrystal formation from amorphous calcium phosphate in calcium-rich solutions. Materials Chemistry and Physics, 2005, 91, 500-506.	2.0	82
38	BaSnO₃ Perovskite Nanoparticles for High Efficiency Dyeâ€Sensitized Solar Cells. ChemSusChem, 2013, 6, 449-454.	3.6	78
39	A simple self-assembly route to single crystalline SnO2 nanorod growth by oriented attachment for dye sensitized solar cells. Nanoscale, 2013, 5, 1188.	2.8	77
40	Rational selection of the polymeric structure for interface engineering of perovskite solar cells. Joule, 2022, 6, 1032-1048.	11.7	72
41	A Quasiâ€Inverse Opal Layer Based on Highly Crystalline TiO₂ Nanoparticles: A New Lightâ€Scattering Layer in Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2011, 1, 546-550.	10.2	71
42	Synthesis and photovoltaic property of fine and uniform Zn₂SnO₄nanoparticles. Nanoscale, 2012, 4, 557-562.	2.8	71
43	New Hybrid Hole Extraction Layer of Perovskite Solar Cells with a Planar pâ€“iâ€“n Geometry. Journal of Physical Chemistry C, 2015, 119, 27285-27290.	1.5	71
44	Electronic band structures and photovoltaic properties of MWO4 (M=Zn, Mg, Ca, Sr) compounds. Journal of Solid State Chemistry, 2011, 184, 2103-2107.	1.4	68
45	Influence of nitrogen chemical states on photocatalytic activities of nitrogen-doped TiO2 nanoparticles under visible light. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 213, 129-135.	2.0	65
46	Nanoscale size effect of titania (anatase) nanotubes with uniform wall thickness as high performance anode for lithium-ion secondary battery. Journal of Power Sources, 2012, 204, 162-167.	4.0	65
47	Long-term stable stacked CsPbBr₃quantum dot films for highly efficient white light generation in LEDs. Nanoscale, 2016, 8, 19523-19526.	2.8	65
48	Rapid Flame-Annealed CuFe₂O₄ as Efficient Photocathode for Photoelectrochemical Hydrogen Production. ACS Sustainable Chemistry and Engineering, 2019, 7, 5867-5874.	3.2	65
49	Efficient Carrier Separation and Intriguing Switching of Bound Charges in Inorganicâ€“Organic Lead Halide Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 2355-2362.	2.1	64
50	Formamidine disulfide oxidant as a localised electron scavenger for >20% perovskite solar cell modules. Energy and Environmental Science, 2021, 14, 4903-4914.	15.6	63
51	Crystallization behaviors of nanosized MgO particles from magnesium alkoxides. Journal of Colloid and Interface Science, 2003, 259, 127-132.	5.0	61
52	Functional Multilayered Transparent Conducting Oxide Thin Films for Photovoltaic Devices. Journal of Physical Chemistry C, 2009, 113, 1083-1087.	1.5	60
53	Preparation of a Nanoporous CaCO3-Coated TiO2 Electrode and Its Application to a Dye-Sensitized Solar Cell. Langmuir, 2007, 23, 11907-11910.	1.6	58
54	In Situ Observation of the Stability of Anatase Nanoparticles and Their Transformation to Rutile in an Acidic Solution. Langmuir, 2004, 20, 11732-11737.	1.6	57

#	Article	IF	Citations
55	Effect of TiO2 particle size and layer thickness on mesoscopic perovskite solar cells. Applied Surface Science, 2019, 477, 131-136.	3.1	57
56	Recent progressive efforts in perovskite solar cells toward commercialization. Journal of Materials Chemistry A, 2018, 6, 12215-12236.	5.2	56
57	Spin-Coating Process for 10 cm Ã— 10 cm Perovskite Solar Modules Enabled by Self-Assembly of SnO₂ Nanocolloids. ACS Energy Letters, 2019, 4, 1845-1851.	8.8	56
58	Crystal phase evolution of TiO2 nanoparticles with reaction time in acidic solutions studied via freeze-drying method. Journal of Solid State Chemistry, 2005, 178, 15-21.	1.4	55
59	Tailored 2D/3D Halide Perovskite Heterointerface for Substantially Enhanced Endurance in Conducting Bridge Resistive Switching Memory. ACS Applied Materials & Interfaces, 2020, 12, 17039-17045.	4.0	55
60	Acid Adsorption on TiO₂ Nanoparticlesâ€”An Electrochemical Properties Study. Journal of Physical Chemistry C, 2008, 112, 8476-8480.	1.5	53
61	Phase evolution and dielectric properties of MgTi2O5 ceramic sintered with lithium borosilicate glass. Materials Research Bulletin, 2005, 40, 2021-2028.	2.7	51
62	Nanowireâ€Based Threeâ€Dimensional Transparent Conducting Oxide Electrodes for Extremely Fast Charge Collection. Advanced Energy Materials, 2011, 1, 829-835.	10.2	50
63	Simple Large-Scale Synthesis of Hydroxyapatite Nanoparticles: In Situ Observation of Crystallization Process. Langmuir, 2010, 26, 384-388.	1.6	49
64	Epitaxial 1D electron transport layers for high-performance perovskite solar cells. Nanoscale, 2015, 7, 15284-15290.	2.8	49
65	Chlorineâ€modified SnO₂ electron transport layer for highâ€efficiency perovskite solar cells. InformaÄnÃ-MateriÃ¡ly, 2020, 2, 401-408.	8.5	48
66	Visible-Light-Induced Photocatalytic Activity in FeNbO₄ Nanoparticles. Journal of Physical Chemistry C, 2008, 112, 18393-18398.	1.5	45
67	Aspartic Acid-Assisted Synthesis of Multifunctional Strontium-Substituted Hydroxyapatite Microspheres. Crystal Growth and Design, 2016, 16, 4318-4326.	1.4	45
68	Origin of Low Photocatalytic Activity of Rutile TiO2. Electronic Materials Letters, 2009, 5, 73-76.	1.0	44
69	Anatase TiO2 nanorod-decoration for highly efficient photoenergy conversion. Nanoscale, 2013, 5, 11725.	2.8	44
70	Fabrication of in vitro 3D mineralized tissue by fusion of composite spheroids incorporating biomineral-coated nanofibers and human adipose-derived stem cells. Acta Biomaterialia, 2018, 74, 464-477.	4.1	44
71	Enhancement of the photoelectric performance of dye-sensitized solar cells by using a CaCO3-coated TiO2 nanoparticle film as an electrode. Solar Energy Materials and Solar Cells, 2006, 90, 2405-2412.	3.0	43
72	Sustainable Green Process for Environmentally Viable Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 1154-1177.	8.8	43

#	Article	IF	Citations
73	Photophysical and Photocatalytic Properties of Ag₂M₂O₇ (M=Mo, W). Journal of the American Ceramic Society, 2010, 93, 3867-3872.	1.9	41
74	A Simple Method To Control Morphology of Hydroxyapatite Nano- and Microcrystals by Altering Phase Transition Route. Crystal Growth and Design, 2013, 13, 3414-3418.	1.4	41
75	All-in-One Lewis Base for Enhanced Precursor and Device Stability in Highly Efficient Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 3425-3434.	8.8	41
76	Low-temperature sintering and microwave dielectric properties of Ba5Nb4O15 with ZnB2O4 glass. Journal of the European Ceramic Society, 2006, 26, 2105-2109.	2.8	40
77	Facile fabrication of three-dimensional TiO 2 structures for highly efficient perovskite solar cells. Nano Energy, 2016, 22, 499-506.	8.2	40
78	Influence of Ca/P ratios of starting solutions on the crystallization of amorphous calcium phosphate to hydroxyapatite. Metals and Materials International, 2004, 10, 171-175.	1.8	38
79	Design of long-term stable red-emitting CsPb(Br0.4, I0.6)3 perovskite quantum dot film for generation of warm white light. Chemical Engineering Journal, 2017, 313, 461-465.	6.6	38
80	Synthesis and adsorption properties of gelatin-conjugated hematite (Î±-Fe2O3) nanoparticles for lead removal from wastewater. Journal of Hazardous Materials, 2021, 416, 125696.	6.5	38
81	Influence of Anataseâ€“Rutile Phase Transformation on Dielectric Properties of Solâ€“Gel Derived TiO2Thin Films. Japanese Journal of Applied Physics, 2005, 44, 6148-6151.	0.8	37
82	Electro-spray deposition of a mesoporous TiO₂charge collection layer: toward large scale and continuous production of high efficiency perovskite solar cells. Nanoscale, 2015, 7, 20725-20733.	2.8	36
83	Efficient and stable green-emitting CsPbBr3 perovskite nanocrystals in a microcapsule for light emitting diodes. Chemical Engineering Journal, 2018, 352, 957-963.	6.6	36
84	Chemical Bath Deposition of Coâ€Doped TiO₂ Electron Transport Layer for Hysteresisâ€Suppressed Highâ€Efficiency Planar Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900176.	3.1	36
85	Indiumâ^'Tinâ^'Oxide-Based Transparent Conducting Layers for Highly Efficient Photovoltaic Devices. Journal of Physical Chemistry C, 2009, 113, 7443-7447.	1.5	35
86	Microwave dielectric properties of nanocrystalline TiO2 prepared using spark plasma sintering. Journal of the European Ceramic Society, 2007, 27, 2937-2940.	2.8	34
87	Electrical behavior of laser-sintered Cu based metal-organic decomposition ink in air environment and application as current collectors in supercapacitor. International Journal of Precision Engineering and Manufacturing - Green Technology, 2015, 2, 333-337.	2.7	34
88	Stable and Efficient Methylammoniumâ€, Cesiumâ€, and Bromideâ€Free Perovskite Solar Cells by Inâ€Situ Interlayer Formation. Advanced Functional Materials, 2021, 31, 2007520.	7.8	34
89	Defect energy levels in Ta2O5 and nitrogen-doped Ta2O5. Journal of Applied Physics, 2008, 104, .	1.1	33
90	Indiumâ€“Tinâ€“Oxide Nanowire Array Based CdSe/CdS/TiO₂ One-Dimensional Heterojunction Photoelectrode for Enhanced Solar Hydrogen Production. ACS Sustainable Chemistry and Engineering, 2016, 4, 1161-1168.	3.2	33

#	Article	IF	Citations
91	Conducting Bridge Resistive Switching Behaviors in Cubic MAPbI₃, Orthorhombic RbPbI₃, and Their Mixtures. Advanced Electronic Materials, 2019, 5, 1800586.	2.6	33
92	Measurement of Quantum Yields of Monolayer TMDs Using Dye-Dispersed PMMA Thin Films. Nanomaterials, 2020, 10, 1032.	1.9	33
93	High Efficiency Perovskite Solar Cells Exceeding 22% via a Photoâ€Assisted Twoâ€Step Sequential Deposition. Advanced Functional Materials, 2021, 31, 2006718.	7.8	33
94	Enhanced photovoltaic properties of overlayer-coated nanocrystalline TiO2 dye-sensitized solar cells (DSSCs). Journal of Electroceramics, 2009, 23, 422-425.	0.8	32
95	Insulated Interlayer for Efficient and Photostable Electron-Transport-Layer-Free Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 10132-10140.	4.0	32
96	Defect Healing in FAPb(I<sub>1â€_x_xBr_x)₃ Perovskites: Multifunctional Fluorinated Sulfonate Surfactant Anchoring Enables >21%ÂModules with Improved Operation Stability. Advanced Energy Materials, 2022, 12, .	10.2	32
97	Ion-induced secondary electron emission behavior of solâ€“gel-derived MgO thin films used for protective layers in alternating current plasma display panels. Journal of Applied Physics, 2002, 92, 2855-2860.	1.1	31
98	Simultaneous Ligand Exchange Fabrication of Flexible Perovskite Solar Cells using Newly Synthesized Uniform Tin Oxide Quantum Dots. Journal of Physical Chemistry Letters, 2018, 9, 5460-5467.	2.1	31
99	Interface Design of Hybrid Electron Extraction Layer for Relieving Hysteresis and Retarding Charge Recombination in Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800993.	1.9	31
100	A Newly Designed Nb-Doped TiO₂/Al-Doped ZnO Transparent Conducting Oxide Multilayer for Electrochemical Photoenergy Conversion Devices. Journal of Physical Chemistry C, 2010, 114, 13867-13871.	1.5	30
101	3-D TiO₂nanoparticle/ITO nanowire nanocomposite antenna for efficient charge collection in solid state dye-sensitized solar cells. Nanoscale, 2014, 6, 6127-6132.	2.8	30
102	Enhancing photocatalytic activity by using TiO2â€“MgO core-shell-structured nanoparticles. Applied Physics Letters, 2006, 88, 013107.	1.5	29
103	Aligned Photoelectrodes with Large Surface Area Prepared by Pulsed Laser Deposition. Journal of Physical Chemistry C, 2012, 116, 8102-8110.	1.5	29
104	Advanced Characterization Techniques for Overcoming Challenges of Perovskite Solar Cell Materials. Advanced Energy Materials, 2021, 11, 2001753.	10.2	29
105	Dynamic structural property of organic-inorganic metal halide perovskite. IScience, 2021, 24, 101959.	1.9	29
106	SrNb2O6 nanotubes with enhanced photocatalytic activity. Journal of Materials Chemistry, 2010, 20, 3979.	6.7	28
107	The novel design of a remote phosphor ceramic plate for white light generation in high power LEDs. Journal of Materials Chemistry C, 2015, 3, 6148-6152.	2.7	28
108	Investigation of useful or deleterious residual thermal stress component to the capacitance of a multilayer ceramic capacitor. Microelectronic Engineering, 2005, 77, 270-276.	1.1	27

#	Article	IF	Citations
109	Roles of MgO Coating Layer on Mesoporous TiO₂/ITO Electrode in a Photoelectrochemical Cell for Water Splitting. Journal of Physical Chemistry C, 2008, 112, 9937-9942.	1.5	27
110	Reversible change in electrical and optical properties in epitaxially grown Al-doped ZnO thin films. Journal of Applied Physics, 2008, 104, .	1.1	27
111	Functionalization of nanomaterials by non-thermal large area atmospheric pressure plasmas: application to flexible dye-sensitized solar cells. Nanoscale, 2013, 5, 7825.	2.8	27
112	Effective passivation of Ag nanowire-based flexible transparent conducting electrode by TiO2 nanoshell. Nano Convergence, 2016, 3, 20.	6.3	27
113	Natural bone-mimicking nanopore-incorporated hydroxyapatite scaffolds for enhanced bone tissue regeneration. Biomaterials Research, 2022, 26, 7.	3.2	27
114	Mobility Enhanced Photoactivity in Solâ^'Gel Grown Epitaxial Anatase TiO₂ Films. Langmuir, 2008, 24, 2695-2698.	1.6	26
115	Confined crystallization of anatase TiO2 nanotubes and their implications on transport properties. Journal of Materials Chemistry A, 2013, 1, 14080.	5.2	26
116	Effect of Metal Electrodes on Aging-Induced Performance Recovery in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 48497-48504.	4.0	26
117	Tin doped indium oxide coreâ€"TiO2 shell nanowires on stainless steel mesh for flexible photoelectrochemical cells. Applied Physics Letters, 2012, 100, .	1.5	25
118	Nanodome Structured BiVO₄/GaO_xN_{1â^'}_x Photoanode for Solar Water Oxidation. Advanced Materials Interfaces, 2017, 4, 1700323.	1.9	25
119	Effects of Acetic Acid on the Crystallization Temperature of Sol-Gel-Derived MgO Nano-Powders and Thin Films. Journal of the American Ceramic Society, 2005, 88, 784-787.	1.9	24
120	Polyethylenimine-Assisted Growth of High-Aspect-Ratio Nitrogen-Doped ZnO (NZO) Nanorod Arrays and Their Effect on Performance of Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 10028-10043.	4.0	24
121	Ultrarapid and ultrasensitive electrical detection of proteins in a three-dimensional biosensor with high capture efficiency. Nanoscale, 2015, 7, 9844-9851.	2.8	24
122	Dual function of a high-contrast hydrophobicâ€"hydrophilic coating for enhanced stability of perovskite solar cells in extremely humid environments. Nano Research, 2017, 10, 3885-3895.	5.8	23
123	Graded functionalization of biomaterial surfaces using mussel-inspired adhesive coating of polydopamine. Colloids and Surfaces B: Biointerfaces, 2017, 159, 546-556.	2.5	23
124	Trapping charges at grain boundaries and degradation of CH₃NH₃Pb(I_{1â^'x}Br_x)₃perovskite solar cells. Nanotechnology, 2017, 28, 315402.	1.3	23
125	Degradation of CH₃NH₃PbI₃ perovskite materials by localized charges and its polarity dependency. Journal of Materials Chemistry A, 2019, 7, 12075-12085.	5.2	23
126	Residual stress evolution in multilayer ceramic capacitors corresponding to layer increase and its correlation to the dielectric constant. Journal of Applied Physics, 2005, 97, 094504.	1.1	22

#	Article	IF	Citations
127	Role of strain in the blistering of hydrogen-implanted silicon. Applied Physics Letters, 2006, 89, 101901.	1.5	22
128	Surfactant-Assisted Shape Evolution of Thermally Synthesized TiO₂ Nanocrystals and Their Applications to Efficient Photoelectrodes. Langmuir, 2008, 24, 4316-4319.	1.6	22
129	Screening effect on photovoltaic performance in ferroelectric CH₃NH₃PbI₃perovskite thin films. Journal of Materials Chemistry A, 2015, 3, 20352-20358.	5.2	22
130	Fine tuning of emission property of white light-emitting diodes by quantum-dot-coating on YAG:Ce nanophosphors. Applied Surface Science, 2016, 379, 467-473.	3.1	22
131	Single-Solution Bar-Coated Halide Perovskite Films via Mediating Crystallization for Scalable Solar Cell Fabrication. ACS Applied Materials & Interfaces, 2019, 11, 11537-11544.	4.0	21
132	Size and shape control of monoclinic vanadium dioxide thermochromic particles for smart window applications. Ceramics International, 2019, 45, 4123-4127.	2.3	21
133	Highly Efficient Photo-Induced Charge Separation Enabled by Metalâ€“Chalcogenide Interfaces in Quantum-Dot/Metal-Oxide Hybrid Phototransistors. ACS Applied Materials & Interfaces, 2020, 12, 16620-16629.	4.0	21
134	Synthesis of nano-sized MgO particle and thin film from diethanolamine-stabilized magnesium-methoxide. Journal of Solid State Chemistry, 2003, 175, 278-283.	1.4	20
135	Voltage-Tunable Dielectric Properties of Pyrochlore Biâ€“Znâ€“Nbâ€“Tiâ€“O Solid-Solution Thin Films. Japanese Journal of Applied Physics, 2005, 44, 6648-6653.	0.8	20
136	Visible-light photocatalytic activity of NH3-heat-treated Ta2O5 to decompose rhodamine B in aqueous solution. Reaction Kinetics, Mechanisms and Catalysis, 2012, 106, 67-81.	0.8	20
137	In2O3:Sn/TiO2/CdS heterojunction nanowire array photoanode in photoelectrochemical cells. International Journal of Hydrogen Energy, 2014, 39, 17473-17480.	3.8	20
138	Green-emitting Lu₃Al₅O₁₂:Ce³⁺ phosphor as a visible light amplifier for dye-sensitized solar cells. RSC Advances, 2015, 5, 24737-24741.	1.7	19
139	Revisiting Effects of Ligand-Capped Nanocrystals in Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 1032-1034.	8.8	19
140	Effects of defects generated in ALD TiO2 films on electrical properties and interfacial reaction in TiO2/SiO2/Si system upon annealing in vacuum. Metals and Materials International, 2008, 14, 759-765.	1.8	18
141	Study on the enhanced and stable field emission behavior of a novel electrosprayed Al-doped ZnO bilayer film. RSC Advances, 2014, 4, 9072.	1.7	18
142	Low Temperature Synthesis of Rutile TiO₂ Nanocrystals and Their Photovoltaic and Photocatalytic Properties. Journal of Nanoscience and Nanotechnology, 2015, 15, 4516-4521.	0.9	18
143	ITO and electron transport layer-free planar perovskite solar cells on transparent Nb-doped anatase TiO2-x electrodes. Journal of Alloys and Compounds, 2020, 845, 155531.	2.8	18
144	Correlation of anatase particle size with photocatalytic properties. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2288-2291.	0.8	17

#	Article	IF	Citations
145	Design of water stable green-emitting CH 3 NH 3 PbBr 3 perovskite luminescence materials with encapsulation for applications in optoelectronic device. Chemical Engineering Journal, 2016, 306, 791-795.	6.6	17
146	Direct Observation of Hydroxyapatite Nucleation from Amorphous Phase in a Stoichiometric Calcium/Phosphate Aqueous Solution. Chemistry Letters, 2004, 33, 1292-1293.	0.7	16
147	Synthesis of Titanium Carbide Nanoparticles with a High Specific Surface Area from a TiO₂ Coreâ€“Sucrose Shell Precursor. Journal of the American Ceramic Society, 2009, 92, 2512-2516.	1.9	16
148	Aminosilane monolayer-assisted patterning of conductive poly(3,4-ethylenedioxythiophene) source/drain electrodes for bottom contact pentacene thin film transistors. Organic Electronics, 2010, 11, 338-343.	1.4	16
149	Fabrication of a Stable New Polymorph Gold Nanowire with Sixfold Rotational Symmetry. Advanced Materials, 2018, 30, e1706261.	11.1	16
150	Role of lithium borosilicate glass in the decomposition of MgTiO3-based dielectric ceramic during sintering. Materials Research Bulletin, 2006, 41, 1206-1214.	2.7	15
151	Strain Relaxation in Solâ˜'Gel Grown Epitaxial Anatase Thin Films. Journal of Physical Chemistry C, 2008, 112, 4205-4208.	1.5	15
152	Understanding the role of the dye/oxide interface via SnO₂-based MK-2 dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2015, 17, 15193-15200.	1.3	15
153	Photoluminescence and electrical properties of epitaxial Alâ€doped ZnO transparent conducting thin films. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2133-2138.	0.8	14
154	Enhancing the Densification of Nanocrystalline TiO₂ by Reduction in Spark Plasma Sintering. Journal of the American Ceramic Society, 2010, 93, 993-997.	1.9	14
155	Surface hydroxylation of TiO2 yields notable visible-light photocatalytic activity to decompose rhodamine B in aqueous solution. Journal of Physics and Chemistry of Solids, 2013, 74, 1136-1142.	1.9	14
156	Cerium-Doped Yttrium Aluminum Garnet Hollow Shell Phosphors Synthesized via the Kirkendall Effect. ACS Applied Materials & Interfaces, 2014, 6, 1145-1151.	4.0	14
157	Preparation and luminescence characteristics of single-phase rod-like BaSi2O2N2:Eu2+ phosphor with new synthetic route for white light generation. Materials Letters, 2014, 129, 178-181.	1.3	13
158	Observation of anatase nanograins crystallizing from anodic amorphous TiO₂ nanotubes. CrystEngComm, 2015, 17, 7346-7353.	1.3	13
159	Role of submicron residual fillers in improving optical reflectance of barrier rib glasses for plasma display panels. Journal of Materials Research, 2006, 21, 1753-1758.	1.2	12
160	TiO2 nanocrystals shell layer on highly conducting indium tin oxide nanowire for photovoltaic devices. Nanoscale, 2013, 5, 3520.	2.8	12
161	Direct Low-Temperature Growth of Single-Crystalline Anatase TiO₂ Nanorod Arrays on Transparent Conducting Oxide Substrates for Use in PbS Quantum-Dot Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 10324-10330.	4.0	12
162	Osteoinductive superparamagnetic Fe nanocrystal/calcium phosphate heterostructured microspheres. Nanoscale, 2017, 9, 19145-19153.	2.8	12

#	Article	IF	Citations
163	Photo-annealed amorphous titanium oxide for perovskite solar cells. Nanoscale, 2019, 11, 19488-19496.	2.8	12
164	Enhanced stability of guanidinium-based organic-inorganic hybrid lead triiodides in resistance switching. APL Materials, 2019, 7, .	2.2	12
165	Mesoporous TiO2 nanowires as bi-functional materials for dye-sensitized solar cells. Electrochimica Acta, 2012, 74, 83-86.	2.6	11
166	Design of a thermally stable rGO-embedded remote phosphor for applications in white LEDs. Journal of Materials Chemistry C, 2015, 3, 235-238.	2.7	11
167	Electrochemically controlled CdS@CdSe nanoparticles on ITO@TiO2 dual coreâ€“shell nanowires for enhanced photoelectrochemical hydrogen production. Applied Surface Science, 2020, 505, 144569.	3.1	11
168	Tailoring of Ligandâ€Off Nanoparticles Inks for Thin pâ€Type Oxide Overlayers Formation with Maintaining Intact Halide Perovskite. Advanced Functional Materials, 2021, 31, 2100863.	7.8	11
169	Composites of cross-linked perovskite/polymer with sodium borate for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 14884-14893.	5.2	11
170	Correlation between dispersion properties of TiO2 colloidal sols and photoelectric characteristics of TiO2 films. Journal of Colloid and Interface Science, 2004, 279, 479-483.	5.0	10
171	Dielectric properties of nanocrystalline TiO2 prepared using spark plasma sintering. Journal of Electroceramics, 2006, 17, 913-917.	0.8	10
172	A Hierarchically Organized Photoelectrode Architecture for Highly Efficient CdS/CdSeâ€Sensitized Solar Cells. Advanced Energy Materials, 2014, 4, 1300395.	10.2	10
173	Point defect-reduced colloidal SnO2 electron transport layers for stable and almost hysteresis-free perovskite solar cells. RSC Advances, 2019, 9, 7334-7337.	1.7	10
174	Enhanced ferroelectric photovoltaic effect in semiconducting single-wall carbon nanotube/BiFeO₃ heterostructures enabled by wide-range light absorption and efficient charge separation. Journal of Materials Chemistry A, 2020, 8, 10377-10385.	5.2	10
175	Effect of margin widths on the residual stress in a multi-layer ceramic capacitor. Microelectronic Engineering, 2006, 83, 2558-2563.	1.1	9
176	Physical origin of residual thermal stresses in a multilayer ceramic capacitor. Journal of Applied Physics, 2007, 101, 063527.	1.1	9
177	Facile Hydrothermal Synthesis of SrNb₂O₆Nanotubes with Rhombic Cross Sections. Crystal Growth and Design, 2010, 10, 2447-2450.	1.4	9
178	Improved spectral response of sensitized photoelectrodes with the optical modulation layer. Electrochemistry Communications, 2012, 15, 29-33.	2.3	9
179	Sintering Behavior of Copper Nanoparticle Ink by Laser in Air. Journal of Nanoscience and Nanotechnology, 2019, 19, 1261-1268.	0.9	9
180	Sintering and Dielectric Properties of <scp><scp>Li₂O</scp></scp>â€“<scp><scp>B₂O₃</scp></scp>â€“<scp><scp>Al₂</sub> Glassâ€Added (<scp><scp>Ca</scp></scp>_{0.7}<scp><scp>Sr</scp></scp>_{0.3}<scp><scp>O</scp></scp>)_{1.03} for Copper Electrode. International Journal of Applied Ceramic Technology, 2013, 10, 716-722.	1.1	8

#	Article	IF	Citations
181	Facile transfer fabrication of transparent, conductive and flexible In2O3:Sn (ITO) nanowire arrays electrode via selective wet-etching ZnO sacrificial layer. Materials Letters, 2015, 158, 304-308.	1.3	8
182	A highly efficient and stable green-emitting mesoporous silica (MP)â€"(Cs0.4Rb0.6)PbBr3 perovskite composite for application in optoelectronic devices. New Journal of Chemistry, 2017, 41, 14076-14079.	1.4	8
183	High-Efficiency Flexible Perovskite Solar Cells Enabled by an Ultrafast Room-Temperature Reactive Ion Etching Process. ACS Applied Materials & Interfaces, 2020, 12, 7125-7134.	4.0	8
184	Highâ€Throughput Pb Recycling for Perovskite Solar Cells Using Biomimetic Whitlockite. Energy and Environmental Materials, 2023, 6, .	7.3	8
185	Effect of Glass Composition on the Dielectric Properties of a Liquidâ€Phaseâ€Sintered MgOâ€Doped BaTiO₃. Journal of the American Ceramic Society, 2008, 91, 2205-2210.	1.9	7
186	Transparent-conducting-oxide nanowire arrays for efficient photoelectrochemical energy conversion. Nanoscale, 2014, 6, 8649.	2.8	7
187	Epitaxial Anatase TiO2Nanorods Array with Reduced Interfacial Charge Recombination for Solar Water Splitting. Journal of the Electrochemical Society, 2016, 163, H469-H473.	1.3	7
188	Dielectric properties of ZnNb2 O 6 -TiO 2 mixture thin films. Journal of Electroceramics, 2006, 17, 179-183.	0.8	6
189	Electrical and optical properties of epitaxial and polycrystalline undoped and Al-doped ZnO thin films grown by pulsed laser deposition. Journal of Electroceramics, 2009, 23, 497-501.	0.8	6
190	Enhanced stabilisation of tetragonal (t)-ZrO₂ in the controlled nanotubular geometry. RSC Advances, 2015, 5, 80472-80479.	1.7	6
191	Recent cutting-edge strategies for flexible perovskite solar cells toward commercialization. Chemical Communications, 2021, 57, 11604-11612.	2.2	6
192	Design of orange-emitting CsPb0.77Mn0.23Cl3 perovskite film for application in optoelectronic device. Chemical Engineering Journal, 2018, 331, 803-808.	6.6	5
193	Hot Scientific Debate on Halide Perovskites: Fundamentals, Photovoltaics, and Optoelectronics at Eighth Sungkyun International Solar Forum 2019 (SISF 2019). ACS Energy Letters, 2019, 4, 2475-2479.	8.8	5
194	Oxide Passivation of Halide Perovskite Resistive Memory Device: A Strategy for Overcoming Endurance Problem. ACS Applied Materials & Interfaces, 2021, 13, 44577-44584.	4.0	5
195	Effect of phosphate ions on the formation of iron oxide/hydroxide as a stabilizer. Journal of Solid State Chemistry, 2022, 305, 122688.	1.4	5
196	Seed-layer mediated orientation evolution in dielectric Biâ€"Znâ€"Tiâ€"Nbâ€"O thin films. Applied Physics Letters, 2007, 91, 232903.	1.5	4
197	Synthesis of carbon-incorporated titanium oxide nanocrystals by pulsed solution plasma: electrical, optical investigation and nanocrystals analysis. RSC Advances, 2015, 5, 9497-9502.	1.7	4
198	A Sharp Focus on Perovskite Solar Cells at Sungkyun International Solar Forum (SISF). ACS Energy Letters, 2016, 1, 500-502.	8.8	4

#	Article	IF	Citations
199	Correlation between photoactivity of TiO2 and diffusion of Na+ ions from soda lime glass. Materials Letters, 2018, 228, 351-355.	1.3	4
200	Influence of strain on the dielectric properties of Biâ€“Znâ€“Tiâ€“Nbâ€“O solid solution thin films. Journal of the European Ceramic Society, 2006, 26, 2161-2164.	2.8	3
201	Influence of annealing atmosphere on the electrical conductivity of copper nanoparticle films. Electronic Materials Letters, 2016, 12, 338-342.	1.0	3
202	In situ formation of <scp>Imidazoleâ€Based 2D</scp> interlayer for efficient perovskite solar cells and modules. International Journal of Energy Research, 2022, 46, 15419-15427.	2.2	3
203	Role of Liquid Phase in Achieving a Fine Microstructure and Diffusive Phase Transition of MgOâ€Doped BaTiO₃. International Journal of Applied Ceramic Technology, 2009, 6, 679-686.	1.1	2
204	Ion-irradiation enhanced epitaxial growth of solâ€“gel TiO2 films. Applied Physics A: Materials Science and Processing, 2011, 103, 179-184.	1.1	2
205	Calcined MnO2â€“ZrO2â€“SiO2 sintering aid for a non-reducible (Ca0.7Sr0.3O)1.03(Ti0.1Zr0.9)O2 dielectric material. Ceramics International, 2015, 41, 3910-3917.	2.3	2
206	Flexible Perovskite Solar Cell. , 2016, , 325-341.		2
207	Enthusiastic Discussions on Halide Perovskite Materials beyond Photovoltaics at Sungkyun International Solar Forum 2017 (SISF2017). ACS Energy Letters, 2018, 3, 199-203.	8.8	2
208	Room-Temperature-Grown amorphous Indium-Tin-Silicon-Oxide thin film as a new electron transporting layer for perovskite solar cells. Applied Surface Science, 2022, 581, 151570.	3.1	2
209	Direct patterning of metal oxides by hard templates and atomic layer deposition. International Journal of Nanotechnology, 2013, 10, 692.	0.1	1
210	Ultimate Charge Extraction of Monolayer PbS Quantum Dot for Observation of Multiple Exciton Generation. ChemPhysChem, 2019, 20, 2657-2661.	1.0	1
211	Safety and efficacy of tacrolimus-coated silicone plates as an alternative to mitomycin C in a rabbit model of conjunctival fibrosis. PLoS ONE, 2019, 14, e0219194.	1.1	1
212	Combinatorial Physical Vapor Deposition : A New Methodology for Exploring Ecoâ€friendly Composition for Halideâ€based Resistive Switching Memory. Advanced Materials Interfaces, 2022, 9, .	1.9	1
213	Objective Interpretation of the Rapid Urease Test forHelicobacter pyloriInfection Using Colorimetry. Journal of Korean Medical Science, 2022, 37, .	1.1	1
214	Ferroelectric Properties of Highly (111) Oriented Pb(Zr0.4Ti0.6)O3 Thin Films Fabricated Using Sol-Gel Process. Integrated Ferroelectrics, 2004, 67, 181-190.	0.3	0
215	Structure and dielectric properties of cubic Bi2(Zn1â^•3Ta2â^•3)2O7 thin films. Journal of Applied Physics, 2009, 106, .	1.1	0
216	3D Transparent Conducting Oxides: Nanowireâ€Based Threeâ€Dimensional Transparent Conducting Oxide Electrodes for Extremely Fast Charge Collection (Adv. Energy Mater. 5/2011). Advanced Energy Materials, 2011, 1, 702-702.	10.2	0

#	Article	IF	Citations
217	Halide Perovskites: Tailoring of Ligandâ€Off Nanoparticles Inks for Thin pâ€Type Oxide Overlayers Formation with Maintaining Intact Halide Perovskite (Adv. Funct. Mater. 31/2021). Advanced Functional Materials, 2021, 31, 2170223.	7.8	0
218	Interfacial Nanomaterials Engineering in Perovskite Solar Cells. , 0, , .		0
219	(Invited) Exploitation of Nanomaterials and Interfacial Engineering in Perovskite Solar Cells. ECS Meeting Abstracts, 2018, , .	0.0	0
220	Effects of defects generated in ALD TiO2 films on electrical properties and interfacial reaction in TiO2/SiO2/Si system upon annealing in vacuum. Metals and Materials International, 2008, 14, 759-765.	1.8	0
221	Defect Healing in FAPb(I_{1â€}_xBr_x)₃ Perovskites: Multifunctional Fluorinated Sulfonate Surfactant Anchoring Enables >21%ÂModules with Improved Operation Stability (Adv. Energy Mater. 20/2022). Advanced Energy Materials, 2022, 12, .	10.2	0