Jianjun Tian

List of Publications by Year
in descending order

124 papers	6,071 citations	61984 43 h-index	76900 74 g-index
125 all docs	125 docs citations	125 times ranked	7194 citing authors

#	Article	IF	Citations
1	Highly Efficient and Stable Perovskite Solar Cells Based on Monolithically Grained CH₃NH₃PbI₃ Film. Advanced Energy Materials, 2017, 7, 1602017.	19.5	291
2	Thermally Stable Copper(II)-Doped Cesium Lead Halide Perovskite Quantum Dots with Strong Blue Emission. Journal of Physical Chemistry Letters, 2019, 10, 943-952.	4.6	274
3	From scalable solution fabrication of perovskite films towards commercialization of solar cells. Energy and Environmental Science, 2019, 12, 518-549.	30.8	269
4	Improved Stability and Photodetector Performance of CsPbI₃ Perovskite Quantum Dots by Ligand Exchange with Aminoethanethiol. Advanced Functional Materials, 2019, 29, 1902446.	14.9	206
5	Original Coreâ€“Shell Structure of Cubic CsPbBr₃@Amorphous CsPbBr_{<i>x</i>} Perovskite Quantum Dots with a High Blue Photoluminescence Quantum Yield of over 80%. ACS Energy Letters, 2018, 3, 245-251.	17.4	202
6	Perovskite Quantum Dots with Ultralow Trap Density by Acid Etchingâ€Driven Ligand Exchange for High Luminance and Stable Pureâ€Blue Lightâ€Emitting Diodes. Advanced Materials, 2021, 33, e2006722.	21.0	196
7	Enhanced Performance of CdS/CdSe Quantum Dot Cosensitized Solar Cells via Homogeneous Distribution of Quantum Dots in TiO₂ Film. Journal of Physical Chemistry C, 2012, 116, 18655-18662.	3.1	176
8	Sn-Doped V₂O₅ Film with Enhanced Lithium-Ion Storage Performance. Journal of Physical Chemistry C, 2013, 117, 23507-23514.	3.1	170
9	Monolithic MAPbI₃ films for high-efficiency solar cells via coordination and a heat assisted process. Journal of Materials Chemistry A, 2017, 5, 21313-21319.	10.3	132
10	A highly efficient (>6%) Cd_{1â^'x}Mn_xSe quantum dot sensitized solar cell. Journal of Materials Chemistry A, 2014, 2, 19653-19659.	10.3	126
11	ZnO/TiO₂nanocable structured photoelectrodes for CdS/CdSe quantum dot co-sensitized solar cells. Nanoscale, 2013, 5, 936-943.	5.6	124
12	Controlled growth of textured perovskite films towards high performance solar cells. Nano Energy, 2016, 27, 17-26.	16.0	123
13	Architectured ZnO photoelectrode for high efficiency quantum dot sensitized solar cells. Energy and Environmental Science, 2013, 6, 3542.	30.8	116
14	Semiconductor quantum dot-sensitized solar cells. Nano Reviews, 2013, 4, 22578.	3.7	109
15	Surface Trap States Passivation for Highâ€Performance Inorganic Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800188.	5.8	103
16	Control of Nanostructures and Interfaces of Metal Oxide Semiconductors for Quantum-Dots-Sensitized Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 1859-1869.	4.6	102
17	Sprayâ€Coated Colloidal Perovskite Quantum Dot Films for Highly Efficient Solar Cells. Advanced Functional Materials, 2019, 29, 1906615.	14.9	100
18	Stable CsPb_{1â€“<i>x</i>}Zn<i>_x</i>I₃ Colloidal Quantum Dots with Ultralow Density of Trap States for High-Performance Solar Cells. Chemistry of Materials, 2020, 32, 6105-6113.	6.7	93

#	Article	IF	Citations
19	Stable and Strong Emission CsPbBr₃ Quantum Dots by Surface Engineering for High-Performance Optoelectronic Films. ACS Applied Materials & Interfaces, 2019, 11, 25410-25416.	8.0	91
20	Constructing water-resistant CH₃NH₃PbI₃perovskite films via coordination interaction. Journal of Materials Chemistry A, 2016, 4, 17018-17024.	10.3	89
21	Colloidal engineering for monolayer CH₃NH₃PbI₃ films toward high performance perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 24168-24177.	10.3	87
22	Hierarchically Structured ZnO Nanorodsâ€“Nanosheets for Improved Quantum-Dot-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 4466-4472.	8.0	85
23	Engineering Halide Perovskite Crystals through Precursor Chemistry. Small, 2019, 15, e1903613.	10.0	82
24	Room-Temperature Construction of Mixed-Halide Perovskite Quantum Dots with High Photoluminescence Quantum Yield. Journal of Physical Chemistry C, 2018, 122, 5151-5160.	3.1	79
25	CsPbI₃/PbSe Heterostructured Nanocrystals for High-Efficiency Solar Cells. ACS Energy Letters, 2020, 5, 2401-2410.	17.4	77
26	Influence of Cationic Precursors on CdS Quantum-Dot-Sensitized Solar Cell Prepared by Successive Ionic Layer Adsorption and Reaction. Journal of Physical Chemistry C, 2013, 117, 26948-26956.	3.1	76
27	Constructing ZnO nanorod array photoelectrodes for highly efficient quantum dot sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 6770.	10.3	74
28	Heat treatment effects on Fe3O4 nanoparticles structure and magnetic properties prepared by carbothermal reduction. Journal of Alloys and Compounds, 2011, 509, 2316-2319.	5.5	72
29	Enhanced Performance of PbS-quantum-dot-sensitized Solar Cells via Optimizing Precursor Solution and Electrolytes. Scientific Reports, 2016, 6, 23094.	3.3	69
30	Spontaneous Selfâ€Assembly of Cesium Lead Halide Perovskite Nanoplatelets into Cuboid Crystals with High Intensity Blue Emission. Advanced Science, 2019, 6, 1900462.	11.2	69
31	Selfâ€Assembled Perovskite Nanowire Clusters for High Luminance Red Lightâ€Emitting Diodes. Advanced Functional Materials, 2020, 30, 2005990.	14.9	67
32	Structural, magnetic and optical properties of Ni-doped TiO2 thin films deposited on silicon(100) substrates by solâ€“gel process. Journal of Alloys and Compounds, 2013, 581, 318-323.	5.5	63
33	Rare earth elements recycling from waste phosphor by dual hydrochloric acid dissolution. Journal of Hazardous Materials, 2014, 272, 96-101.	12.4	63
34	High-Voltage-Efficiency Inorganic Perovskite Solar Cells in a Wide Solution-Processing Window. Journal of Physical Chemistry Letters, 2018, 9, 3646-3653.	4.6	63
35	Design, fabrication and modification of metal oxide semiconductor for improving conversion efficiency of excitonic solar cells. Coordination Chemistry Reviews, 2016, 320-321, 193-215.	18.8	56
36	Monolayer-like hybrid halide perovskite films prepared by additive engineering without antisolvents for solar cells. Journal of Materials Chemistry A, 2018, 6, 15386-15394.	10.3	53

#	Article	IF	Citations
37	Influence of transition metal doping on the structural, optical, and magnetic properties of TiO2 films deposited on Si substrates by a solâ€“gel process. Nanoscale Research Letters, 2013, 8, 533.	5.7	52
38	Dynamic Growth of Pinhole-Free Conformal CH3NH3PbI3 Film for Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 4684-4690.	8.0	50
39	Rapid construction of TiO₂ aggregates using microwave assisted synthesis and its application for dye-sensitized solar cells. RSC Advances, 2015, 5, 8622-8629.	3.6	49
40	Investigation of the role of Mn dopant in CdS quantum dot sensitized solar cell. Electrochimica Acta, 2016, 191, 62-69.	5.2	49
41	Electroluminescence Principle and Performance Improvement of Metal Halide Perovskite Lightâ€Emitting Diodes. Advanced Optical Materials, 2021, 9, 2002167.	7.3	49
42	Microsphere Light-Scattering Layer Assembled by ZnO Nanosheets for the Construction of High Efficiency (>5%) Quantum Dots Sensitized Solar Cells. Journal of Physical Chemistry C, 2014, 118, 16611-16617.	3.1	47
43	Copper nanocrystal modified activated carbon for supercapacitors with enhanced volumetric energy and power density. Journal of Power Sources, 2013, 236, 215-223.	7.8	44
44	Broadband hybrid organic/CuInSe₂ quantum dot photodetectors. Journal of Materials Chemistry C, 2018, 6, 2573-2579.	5.5	44
45	ZnO nanocrystallite aggregates synthesized through interface precipitation for dye-sensitized solar cells. Nano Energy, 2013, 2, 40-48.	16.0	43
46	Continuous Size Tuning of Monodispersed ZnO Nanoparticles and Its Size Effect on the Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 9785-9794.	8.0	43
47	Nanorodâ€“nanosheet hierarchically structured ZnO crystals on zinc foil as flexible photoanodes for dye-sensitized solar cells. Nanoscale, 2013, 5, 1894.	5.6	42
48	Microwave-Assisted Synthesis of SnO₂ Nanosheets Photoanodes for Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2014, 118, 25931-25938.	3.1	42
49	Cu₃Se₂ nanostructure as a counter electrode for high efficiency quantum dot-sensitized solar cells. Journal of Materials Chemistry C, 2016, 4, 8020-8026.	5.5	42
50	Recent advances in counter electrodes of quantum dot-sensitized solar cells. RSC Advances, 2016, 6, 90082-90099.	3.6	41
51	Mnâ€“Zn soft magnetic ferrite nanoparticles synthesized from spent alkaline Znâ€“Mn batteries. Journal of Alloys and Compounds, 2011, 509, 3991-3994.	5.5	40
52	Repairing Defects of Halide Perovskite Films To Enhance Photovoltaic Performance. ACS Applied Materials & Interfaces, 2018, 10, 37005-37013.	8.0	40
53	Improved charge generation and collection in dye-sensitized solar cells with modified photoanode surface. Nano Energy, 2014, 10, 353-362.	16.0	38
54	Novel Photoanode for Dye-Sensitized Solar Cells with Enhanced Light-Harvesting and Electron-Collection Efficiency. ACS Applied Materials & Interfaces, 2016, 8, 13418-13425.	8.0	38

#	Article	IF	Citations
55	Carbothermal reduction method for Fe3O4 powder synthesis. Journal of Alloys and Compounds, 2010, 502, 338-340.	5.5	36
56	Dye-sensitized solar cells based on hierarchically structured porous TiO₂ filled with nanoparticles. Journal of Materials Chemistry A, 2015, 3, 11320-11329.	10.3	34
57	Controlled crystallinity and morphologies of 2D Ruddlesden-Popper perovskite films grown without anti-solvent for solar cells. Chemical Engineering Journal, 2020, 394, 124959.	12.7	33
58	Gradient-Band Alignment Homojunction Perovskite Quantum Dot Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 1018-1024.	4.6	33
59	Effect of WC particle size on the microstructure, mechanical properties and fracture behavior of WCâ€"(W, Ti, Ta) Câ€"6wt% Co cemented carbides. International Journal of Refractory Metals and Hard Materials, 2007, 25, 405-410.	3.8	32
60	Significant Stability Enhancement of Perovskite Solar Cells by Facile Adhesive Encapsulation. Journal of Physical Chemistry C, 2018, 122, 25260-25267.	3.1	31
61	Surface Engineering of Quantum Dots for Remarkably High Detectivity Photodetectors. Journal of Physical Chemistry Letters, 2018, 9, 3285-3294.	4.6	31
62	Operational Stability Issues and Challenges in Metal Halide Perovskite Light-Emitting Diodes. Journal of Physical Chemistry Letters, 2022, 13, 1962-1971.	4.6	31
63	Effects of Co doping on structure and optical properties of TiO2 thin films prepared by solâ€"gel method. Thin Solid Films, 2012, 520, 5179-5183.	1.8	30
64	CuInSe₂ Quantum Dots Hybrid Hole Transfer Layer for Halide Perovskite Photodetectors. ACS Applied Materials & Interfaces, 2018, 10, 35656-35663.	8.0	30
65	Interphases, Interfaces, and Surfaces of Active Materials in Rechargeable Batteries and Perovskite Solar Cells. Advanced Materials, 2021, 33, e1905245.	21.0	30
66	Controlled growth of Cu3Se2 nanosheets array counter electrode for quantum dots sensitized solar cell through ion exchange. Science China Materials, 2017, 60, 637-645.	6.3	27
67	An air-stable ultraviolet photodetector based on mesoporous TiO₂/spiro-OMeTAD. Journal of Materials Chemistry C, 2017, 5, 10543-10548.	5.5	26
68	Synthesis of Colloidal Blue-Emitting InP/ZnS Core/Shell Quantum Dots with the Assistance of Copper Cations. Journal of Physical Chemistry Letters, 2019, 10, 6720-6726.	4.6	26
69	Insights into iodoplumbate complex evolution of precursor solutions for perovskite solar cells: from aging to degradation. Journal of Materials Chemistry A, 2021, 9, 6732-6748.	10.3	26
70	A structure of CdS/CuxS quantum dots sensitized solar cells. Applied Physics Letters, 2016, 108, 213901.	3.3	25
71	A ZnO nanorod layer with a superior light-scattering effect for dye-sensitized solar cells. RSC Advances, 2013, 3, 18537.	3.6	23
72	Impact of sol aging on TiO2 compact layer and photovoltaic performance of perovskite solar cell. Science China Materials, 2016, 59, 710-718.	6.3	23

#	Article	IF	Citations
73	Ultra-long photoluminescence lifetime in an inorganic halide perovskite thin film. Journal of Materials Chemistry A, 2019, 7, 22229-22234.	10.3	23
74	Ultrathin ALD coating on TiO2 photoanodes with enhanced quantum dot loading and charge collection in quantum dots sensitized solar cells. Science China Materials, 2016, 59, 833-841.	6.3	21
75	Dip-coated colloidal quantum-dot films for high-performance broadband photodetectors. Journal of Materials Chemistry C, 2019, 7, 6266-6272.	5.5	21
76	Co-reduction synthesis of uniform ferromagnetic SmCo nanoparticles. Materials Letters, 2012, 68, 212-214.	2.6	20
77	Double Active Layers Constructed with Halide Perovskite and Quantum Dots for Broadband Photodetection. Advanced Optical Materials, 2020, 8, 2000557.	7.3	19
78	Multiple-Function Surface Engineering of SnO₂ Nanoparticles to Achieve Efficient Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 9142-9148.	4.6	19
79	Enhanced magnetoelectric effect in magnetostrictive/piezoelectric laminates through adopting magnetic warm compaction Terfenol-D. Journal of Alloys and Compounds, 2014, 587, 287-289.	5.5	18
80	Critical current density and vortex pinning in tetragonalFeS1âˆ’xSex(x=0,0.06). Physical Review B, 2016, 94, .	3.2	18
81	Enhanced-performance of self-powered flexible quantum dot photodetectors by a double hole transport layer structure. Nanoscale, 2019, 11, 9626-9632.	5.6	18
82	Anisotropic bonded NdFeB magnets with radial oriented magnetization by 2-step warm compaction process. Journal of Alloys and Compounds, 2009, 477, 510-514.	5.5	17
83	Magnetic and optical properties of La-doped BiFeO3 films prepared by solâ€“gel route. Journal of Materials Science: Materials in Electronics, 2015, 26, 700-704.	2.2	16
84	Electron Delocalization in CsPbI₃ Quantum Dots Enables Efficient Lightâ€Emitting Diodes with Improved Efficiency Rollâ€Off. Advanced Optical Materials, 2022, 10, .	7.3	16
85	Architecturing high magnetic properties of NdFeB/SmFeN hybrid magnets. Materials Letters, 2013, 105, 87-89.	2.6	15
86	Hierarchical ZnO microspheres photoelectrodes assembled with Zn chalcogenide passivation layer for high efficiency quantum dot sensitized solar cells. Journal of Power Sources, 2018, 401, 255-262.	7.8	15
87	Combined <i>in Situ</i> Photoluminescence and X-ray Scattering Reveals Defect Formation in Lead-Halide Perovskite Films. Journal of Physical Chemistry Letters, 2021, 12, 10156-10162.	4.6	15
88	High Efficiency and Narrow Emission Band Pure-Red Perovskite Colloidal Quantum Wells. Journal of Physical Chemistry Letters, 2021, 12, 10735-10741.	4.6	14
89	Influence of Ni doping on phase transformation and optical properties of TiO2 films deposited on quartz substrates by solâ€“gel process. Applied Surface Science, 2012, 258, 4893-4897.	6.1	11
90	Perovskite CsPbBr3 Quantum Dots Prepared Using Discarded Leadâ€“Acid Battery Recycled Waste. Energies, 2019, 12, 1117.	3.1	11

#	Article	IF	Citations
91	Controllable Ferromagnetism in Super-tetragonal PbTiO₃ through Strain Engineering. Nano Letters, 2020, 20, 881-886.	9.1	11
92	Demystifying the Formation of Colloidal Perovskite Nanocrystals via Controlling Stepwise Synthesis. Journal of Physical Chemistry C, 2021, 125, 14204-14211.	3.1	11
93	Improving the Performance and Stability of Perovskite Solar Cells through Buried Interface Passivation Using Potassium Hydroxide. ACS Applied Energy Materials, 2022, 5, 1914-1921.	5.1	11
94	Thermally Stable Redâ€Emitting Mixed Halide Perovskite Nanocrystals Enabled by Solid Reaction and Coâ€Doping Process. Advanced Optical Materials, 2022, 10, .	7.3	11
95	Optical properties of Fe-doped BaTiO3 films deposited on quartz substrates by sol-gel method. Journal of Alloys and Compounds, 2016, 687, 529-533.	5.5	10
96	Spray Coated Colloidal Quantum Dot Films for Broadband Photodetectors. Nanomaterials, 2019, 9, 1738.	4.1	10
97	Exploiting Flexible Memristors Based on Solutionâ€Processed Colloidal CuInSe₂ Nanocrystals. Advanced Electronic Materials, 2020, 6, 2000035.	5.1	10
98	Highâ€Quality Î±â€FAPbI₃ Film Assisted by Lead Acetate for Efficient Solar Cells. Solar Rrl, 2021, 5, 2100747.	5.8	10
99	Behavior of residual carbon in Sm(Co, Fe, Cu, Zr)z permanent magnets. Journal of Alloys and Compounds, 2007, 440, 89-93.	5.5	9
100	Effects of Co doping on the phase transformation and optical properties of TiO2 thin films by solâ€"gel method. Physica E: Low-Dimensional Systems and Nanostructures, 2011, 44, 550-554.	2.7	9
101	Exploring performance degradation of quantum-dot light-emitting diodes. Journal of Materials Chemistry C, 2022, 10, 8642-8649.	5.5	9
102	Tuning optical and magnetic properties of nanocrystalline BaTiO3 films by Fe doping. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	8
103	Highly Pure White Light-Emitting Single-Component Perovskite Colloidal Quantum Dots. Journal of Physical Chemistry C, 2021, 125, 18810-18816.	3.1	8
104	Induction of Wurtzite to Zinc-Blende Phase Transformation in ZnSe Nanorods During Cu(I) Cation Exchange. Chemistry of Materials, 2021, 33, 2398-2407.	6.7	7
105	Antioxidation Study of Sm(Co, Cu, Fe, Zr)z-Sintered Permanent Magnets by Metal Injection Molding. Journal of Rare Earths, 2006, 24, 569-573.	4.8	6
106	2:17-type SmCo magnets prepared by powder injection molding using a water-based binder. Journal of Magnetism and Magnetic Materials, 2008, 320, 2168-2171.	2.3	6
107	Effects of Fe doping on the optical and magnetic properties of TiO2 films deposited on Si substrates by a solâ€"gel route. Journal of Sol-Gel Science and Technology, 2015, 74, 521-527.	2.4	6
108	Titanium dioxide nanowires modified tin oxide hollow spheres for dye-sensitized solar cells. MRS Communications, 2016, 6, 226-233.	1.8	6

#	Article	IF	Citations
109	Gradient Annealing of Halide Perovskite Films for Improved Performance of Solar Cells. ACS Applied Energy Materials, 2020, 3, 8130-8134.	5.1	6
110	Magnetic properties and microstructure of radially oriented Sm(Co,Fe,Cu,Zr)z ring magnets. Materials Letters, 2007, 61, 5271-5274.	2.6	5
111	Radial cracks and fracture mechanism of radially oriented ring 2:17 type SmCo magnets. Journal of Alloys and Compounds, 2009, 476, 98-101.	5.5	5
112	Bonded Terfenol-D composites with low eddy current loss and high magnetostriction. Rare Metals, 2010, 29, 579-582.	7.1	5
113	Photoelectrochemical Performance Enhancement of ZnSe Nanorods versus Dots: Combined Experimental and Computational Insights. Journal of Physical Chemistry Letters, 2020, 11, 10414-10420.	4.6	5
114	Atomic Sulfur Passivation Improves the Photoelectrochemical Performance of ZnSe Nanorods. Nanomaterials, 2020, 10, 1081.	4.1	5
115	Fe_{0.36(4)}Pd_{0.64(4)}Se₂: Magnetic Spin-Glass Polymorph of FeSe₂ and PdSe₂ Stable at Ambient Pressure. Inorganic Chemistry, 2019, 58, 3107-3114.	4.0	4
116	Filtering Strategy of Colloidal Quantum Dots for Improving Performance of Light-Emitting Diodes. Journal of Physical Chemistry C, 2021, 125, 2299-2305.	3.1	4
117	A boosting carrier transfer passivation layer for achieving efficient perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 9794-9801.	5.5	4
118	Fe doping enhances ferromagnetism in MgTiO3 films. Journal of Materials Science: Materials in Electronics, 2019, 30, 10499-10506.	2.2	3
119	Stable and Efficient Red-Emitting Perovskite Cross-Shaped Nanoplates. Journal of Physical Chemistry Letters, 2022, 13, 1506-1511.	4.6	3
120	Absence of long-range magnetic order in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">Fe</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>Î´</mml:mi></mml:mrow>< mathvariant="normal">Te</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> (<mml:math) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	3.2	3
121	Evolution of magnetoresistance with temperature in the insulating van der Waals compound Ta₂Pd₃Te₅. Applied Physics Letters, 2022, 120, 161901.	3.3	3
122	Magnetic properties and thermal stability of anisotropic bonded Nd-Fe-B magnets by warm compaction. Rare Metals, 2009, 28, 245-247.	7.1	2
123	Nucleation Temperatureâ€Dependent Synthesis of Polytypic CuInSe ₂ Nanostructures with Variable Tetrapodâ€Like and Coreâ€Shell Morphologies. ChemNanoMat, 0, , .	2.8	1
124	CdS/CdSe Quantum Dot Co-sensitized Solar Cells. , 2013, , .		0