

Shujuan Huang

List of Publications by Citations

Source: <https://exaly.com/author-pdf/8841239/shujuan-huang-publications-by-citations.pdf>
Version: 2024-04-09

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

187 papers	8,411 citations	52 h-index	87 g-index
216 ext. papers	9,790 ext. citations	9.1 avg, IF	6.25 L-index

#	Paper	IF	Citations
187	Benefit of Grain Boundaries in Organic-Inorganic Halide Planar Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 875-80	6.4	367
186	Beneficial Effects of PbI ₂ Incorporated in Organo-Lead Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2016 , 6, 1502104	21.8	335
185	Silicon quantum dot nanostructures for tandem photovoltaic cells. <i>Thin Solid Films</i> , 2008 , 516, 6748-6756	6.2	332
184	Hole Transport Layer Free Inorganic CsPbI ₂ Br ₂ Perovskite Solar Cell by Dual Source Thermal Evaporation. <i>Advanced Energy Materials</i> , 2016 , 6, 1502202	21.8	317
183	Critical Role of Grain Boundaries for Ion Migration in Formamidinium and Methylammonium Lead Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2016 , 6, 1600330	21.8	281
182	Strontium-Doped Low-Temperature-Processed CsPbI ₂ Br Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2017 , 2, 2319-2325	20.1	258
181	Acoustic-optical phonon up-conversion and hot-phonon bottleneck in lead-halide perovskites. <i>Nature Communications</i> , 2017 , 8, 14120	17.4	245
180	Mixed 3D/2D Passivation Treatment for Mixed-Cation Lead Mixed-Halide Perovskite Solar Cells for Higher Efficiency and Better Stability. <i>Advanced Energy Materials</i> , 2018 , 8, 1703392	21.8	226
179	Passivation of Grain Boundaries by Phenethylammonium in Formamidinium-Methylammonium Lead Halide Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2018 , 3, 647-654	20.1	220
178	High-Efficiency Rubidium-Incorporated Perovskite Solar Cells by Gas Quenching. <i>ACS Energy Letters</i> , 2017 , 2, 438-444	20.1	200
177	CsPbI ₂ Br ₂ Perovskite Solar Cell by Spray-Assisted Deposition. <i>ACS Energy Letters</i> , 2016 , 1, 573-577	20.1	196
176	Methylammonium Lead Bromide Perovskite-Based Solar Cells by Vapor-Assisted Deposition. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 3545-3549	3.8	195
175	Humidity-Induced Degradation via Grain Boundaries of HC(NH ₂) ₂ PbI ₃ Planar Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2018 , 28, 1705363	15.6	172
174	Gas chromatography-mass spectrometry analyses of encapsulated stable perovskite solar cells. <i>Science</i> , 2020 , 368,	33.3	167
173	Enhanced performance via partial lead replacement with calcium for a CsPbI ₃ perovskite solar cell exceeding 13% power conversion efficiency. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 5580-5586	13	162
172	Defect trapping states and charge carrier recombination in organic/inorganic halide perovskites. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 793-800	7.1	136
171	Untapped Potentials of Inorganic Metal Halide Perovskite Solar Cells. <i>Joule</i> , 2019 , 3, 938-955	27.8	131

170	Large area efficient interface layer free monolithic perovskite/homo-junction-silicon tandem solar cell with over 20% efficiency. <i>Energy and Environmental Science</i> , 2018 , 11, 2432-2443	35.4	122
169	Overcoming the Challenges of Large-Area High-Efficiency Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2017 , 2, 1978-1984	20.1	104
168	Mobile Charge-Induced Fluorescence Intermittency in Methylammonium Lead Bromide Perovskite. <i>Nano Letters</i> , 2015 , 15, 4644-9	11.5	97
167	Review of Novel Passivation Techniques for Efficient and Stable Perovskite Solar Cells. <i>Solar Rrl</i> , 2019 , 3, 1800302	7.1	94
166	Light Illumination Induced Photoluminescence Enhancement and Quenching in Lead Halide Perovskite. <i>Solar Rrl</i> , 2017 , 1, 1600001	7.1	88
165	Mobile Ion Induced Slow Carrier Dynamics in Organic-Inorganic Perovskite CH ₃ NH ₃ PbBr ₃ . <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 5351-7	9.5	87
164	Optical analysis of perovskite/silicon tandem solar cells. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 5679-5689	5.89	86
163	Silicon Quantum Dots in a Dielectric Matrix for All-Silicon Tandem Solar Cells. <i>Advances in OptoElectronics</i> , 2007 , 2007, 1-11	0.5	84
162	The Effect of Stoichiometry on the Stability of Inorganic Cesium Lead Mixed-Halide Perovskites Solar Cells. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 19642-19649	3.8	83
161	Morphology and Carrier Extraction Study of Organic-Inorganic Metal Halide Perovskite by One- and Two-Photon Fluorescence Microscopy. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 3849-53	6.4	80
160	Efficient electron transfer in carbon nanodot/graphene oxide nanocomposites. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 2894	7.1	77
159	Nucleation and Growth Control of HC(NH ₂) ₂ PbI ₃ for Planar Perovskite Solar Cell. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 11262-11267	3.8	74
158	Flexible and efficient perovskite quantum dot solar cells via hybrid interfacial architecture. <i>Nature Communications</i> , 2021 , 12, 466	17.4	73
157	Ultrafast electron transfer in the nanocomposite of the graphene oxide/Au nanocluster with graphene oxide as a donor. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 3826-3834	7.1	71
156	Solution-Processed, Silver-Doped NiOx as Hole Transporting Layer for High-Efficiency Inverted Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2018 , 1, 561-570	6.1	69
155	21.8% Efficient Monolithic Perovskite/Homo-Junction-Silicon Tandem Solar Cell on 16 cm ² . <i>ACS Energy Letters</i> , 2018 , 3, 2299-2300	20.1	69
154	Fabrication of Efficient and Stable CsPbI ₃ Perovskite Solar Cells through Cation Exchange Process. <i>Advanced Energy Materials</i> , 2019 , 9, 1901685	21.8	67
153	Four-Terminal Tandem Solar Cells Using CH ₃ NH ₃ PbBr ₃ by Spectrum Splitting. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 3931-4	6.4	65

152	Evolution of Si (and SiC) nanocrystal precipitation in SiC matrix. <i>Thin Solid Films</i> , 2008 , 516, 3824-3830	2.2	65
151	Experimental conditions for a highly ordered monolayer of gold nanoparticles fabricated by the Langmuir-Blodgett method. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001 , 19, 2045		65
150	A New Passivation Route Leading to Over 8% Efficient PbSe Quantum-Dot Solar Cells via Direct Ion Exchange with Perovskite Nanocrystals. <i>Advanced Materials</i> , 2017 , 29, 1703214	24	64
149	The role of Ag in (Ag,Cu) ₂ ZnSnS ₄ thin film for solar cell application. <i>Journal of Alloys and Compounds</i> , 2015 , 625, 277-283	5.7	63
148	An effective method of predicting perovskite solar cell lifetime—Case study on planar CH ₃ NH ₃ PbI ₃ and HC(NH ₂) ₂ PbI ₃ perovskite solar cells and hole transfer materials of spiro-OMeTAD and PTAA. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 162, 41-46	6.4	61
147	Electric field induced reversible and irreversible photoluminescence responses in methylammonium lead iodide perovskite. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 9060-9068	7.1	61
146	Effects of the surface pressure on the formation of Langmuir-Blodgett monolayer of nanoparticles. <i>Langmuir</i> , 2004 , 20, 2274-6	4	60
145	Unveiling the Relationship between the Perovskite Precursor Solution and the Resulting Device Performance. <i>Journal of the American Chemical Society</i> , 2020 , 142, 6251-6260	16.4	57
144	Achieving high-performance PbS quantum dot solar cells by improving hole extraction through Ag doping. <i>Nano Energy</i> , 2018 , 46, 212-219	17.1	57
143	Large-Area 23%-Efficient Monolithic Perovskite/Homojunction-Silicon Tandem Solar Cell with Enhanced UV Stability Using Down-Shifting Material. <i>ACS Energy Letters</i> , 2019 , 4, 2623-2631	20.1	57
142	Silicon quantum dot based solar cells: addressing the issues of doping, voltage and current transport. <i>Progress in Photovoltaics: Research and Applications</i> , 2011 , 19, 813-824	6.8	57
141	Hot carrier solar cell absorber prerequisites and candidate material systems. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 135, 124-129	6.4	55
140	Superior Self-Powered Room-Temperature Chemical Sensing with Light-Activated Inorganic Halides Perovskites. <i>Small</i> , 2018 , 14, 1702571	11	54
139	Spin-coating free fabrication for highly efficient perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 168, 165-171	6.4	53
138	Acetic Acid Assisted Crystallization Strategy for High Efficiency and Long-Term Stable Perovskite Solar Cell. <i>Advanced Science</i> , 2020 , 7, 1903368	13.6	53
137	Tunability Limit of Photoluminescence in Colloidal Silicon Nanocrystals. <i>Scientific Reports</i> , 2015 , 5, 12469	4.9	53
136	Wrapping the walls of n-TiO ₂ nanotubes with p-CuInS ₂ nanoparticles using pulsed-electrodeposition for improved heterojunction photoelectrodes. <i>Chemical Communications</i> , 2011 , 47, 11288-90	5.8	53
135	Light- and bias-induced structural variations in metal halide perovskites. <i>Nature Communications</i> , 2019 , 10, 444	17.4	51

134	Well-size-controlled Colloidal Gold Nanoparticles Dispersed in Organic Solvents. <i>Japanese Journal of Applied Physics</i> , 2001 , 40, 346-349	1.4	51
133	Spatial Distribution of Lead Iodide and Local Passivation on Organo-Lead Halide Perovskite. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 6072-6078	9.5	50
132	Theoretical and Experimental Investigation of the Electronic Structure and Quantum Confinement of Wet-Chemistry Synthesized Ag ₂ S Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 867-872	3.8	49
131	Formation of a large-scale Langmuir-Blodgett monolayer of alkanethiol-encapsulated gold particles. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001 , 19, 115		48
130	Photochemical upconversion of near-infrared light from below the silicon bandgap. <i>Nature Photonics</i> , 2020 , 14, 585-590	33.9	48
129	Balancing the Electron and Hole Transfer for Efficient Quantum Dot Light-Emitting Diodes by Employing a Versatile Organic Electron-Blocking Layer. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 15803-15811	9.5	46
128	Significant Improvement in the Performance of PbSe Quantum Dot Solar Cell by Introducing a CsPbBr ₃ Perovskite Colloidal Nanocrystal Back Layer. <i>Advanced Energy Materials</i> , 2017 , 7, 1601773	21.8	43
127	Fabrication and characterization of Si nanocrystals in SiC matrix produced by magnetron cosputtering. <i>Journal of Vacuum Science & Technology B</i> , 2007 , 25, 1327		43
126	Enhanced optoelectronic performance in AgBiS ₂ nanocrystals obtained via an improved amine-based synthesis route. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 731-737	7.1	42
125	Ultrafast Carrier Dynamics in Methylammonium Lead Bromide Perovskite. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 2542-2547	3.8	42
124	Studies of compositional dependent Cu ₂ Zn(Ge Sn) _{1-x} S ₄ thin films prepared by sulfurizing sputtered metallic precursors. <i>Journal of Alloys and Compounds</i> , 2015 , 621, 154-161	5.7	41
123	Effect of Halide Treatments on PbSe Quantum Dot Thin Films: Stability, Hot Carrier Lifetime, and Application to Photovoltaics. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 24149-24155	3.8	38
122	Rapid thermal annealing and crystallization mechanisms study of silicon nanocrystal in silicon carbide matrix. <i>Nanoscale Research Letters</i> , 2011 , 6, 129	5	38
121	Formation and photoluminescence of Si nanocrystals in controlled multilayer structure comprising of Si-rich nitride and ultrathin silicon nitride barrier layers. <i>Thin Solid Films</i> , 2011 , 519, 5408-5412	2.2	38
120	Dynamic study of the light soaking effect on perovskite solar cells by in-situ photoluminescence microscopy. <i>Nano Energy</i> , 2018 , 46, 356-364	17.1	37
119	High Performance PbS Colloidal Quantum Dot Solar Cells by Employing Solution-Processed CdS Thin Films from a Single-Source Precursor as the Electron Transport Layer. <i>Advanced Functional Materials</i> , 2017 , 27, 1703687	15.6	35
118	Monolithic Wide Band Gap Perovskite/Perovskite Tandem Solar Cells with Organic Recombination Layers. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 27256-27262	3.8	35
117	Enhancing Resistive Switching Performance and Ambient Stability of Hybrid Perovskite Single Crystals via Embedding Colloidal Quantum Dots. <i>Advanced Functional Materials</i> , 2020 , 30, 2002948	15.6	34

116	Synergistic effect of electron transport layer and colloidal quantum dot solid enable PbSe quantum dot solar cell achieving over 10 % efficiency. <i>Nano Energy</i> , 2019 , 64, 103922	17.1	34
115	Optical spectroscopic studies of the dispersibility of gold nanoparticle solutions. <i>Journal of Applied Physics</i> , 2002 , 92, 7486-7490	2.5	33
114	The Impact of a Dynamic Two-Step Solution Process on Film Formation of Cs (MA FA) PbI Perovskite and Solar Cell Performance. <i>Small</i> , 2019 , 15, e1804858	11	31
113	Nanoscale Characterization of Carrier Dynamic and Surface Passivation in InGaN/GaN Multiple Quantum Wells on GaN Nanorods. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 31887-31893	9.5	29
112	Ambient-Temperature Waterborne Polymer/rGO Nanocomposite Films: Effect of rGO Distribution on Electrical Conductivity. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 48450-48458	9.5	28
111	Synergistic effect of potassium and iodine from potassium triiodide complex additive on gas-quenched perovskite solar cells. <i>Nano Energy</i> , 2019 , 63, 103853	17.1	27
110	Self-Organization of a Two-Dimensional Array of Gold Nanodots Encapsulated by Alkanethiol. <i>Japanese Journal of Applied Physics</i> , 1998 , 37, 7198-7201	1.4	26
109	External stokes shift of perovskite nanocrystals enlarged by photon recycling. <i>Applied Physics Letters</i> , 2019 , 114, 011906	3.4	26
108	Electrode Design to Overcome Substrate Transparency Limitations for Highly Efficient 1 cm ² Mesoscopic Perovskite Solar Cells. <i>Joule</i> , 2018 , 2, 2694-2705	27.8	26
107	Quantum Dots for Photovoltaics: A Tale of Two Materials. <i>Advanced Energy Materials</i> , 2021 , 11, 2100354	21.8	25
106	Enhanced mobility in PbS quantum dot films via PbSe quantum dot mixing for optoelectronic applications. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 4497-4502	7.1	24
105	Doping of Silicon Quantum Dots Embedded in Nitride Matrix for All-Silicon Tandem Cells. <i>Japanese Journal of Applied Physics</i> , 2012 , 51, 10NE10	1.4	23
104	Hybrid Perovskite Quantum Dot/Non-Fullerene Molecule Solar Cells with Efficiency Over 15%. <i>Advanced Functional Materials</i> , 2021 , 31, 2101272	15.6	23
103	Elucidating Mechanisms behind Ambient Storage-Induced Efficiency Improvements in Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2021 , 6, 925-933	20.1	23
102	Investigation of anti-solvent induced optical properties change of cesium lead bromide iodide mixed perovskite (CsPbBrI) quantum dots. <i>Journal of Colloid and Interface Science</i> , 2017 , 504, 586-592	9.3	22
101	Sputter-grown Si quantum dot nanostructures for tandem solar cells. <i>Journal Physics D: Applied Physics</i> , 2013 , 46, 024003	3	22
100	Ligand-mediated synthesis of colloidal CsSnI three-dimensional nanocrystals and two-dimensional nanoplatelets. <i>Nanotechnology</i> , 2019 , 30, 295601	3.4	21
99	Size dependent optical properties of Si quantum dots in Si-rich nitride/Si ₃ N ₄ superlattice synthesized by magnetron sputtering. <i>Journal of Applied Physics</i> , 2011 , 109, 064302	2.5	21

98	A Review on Halide Perovskite Film Formation by Sequential Solution Processing for Solar Cell Applications. <i>Energy Technology</i> , 2020 , 8, 1901114	3.5	20
97	Enhancing PbS Colloidal Quantum Dot Tandem Solar Cell Performance by Graded Band Alignment. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 5729-5734	6.4	19
96	Three-dimensional imaging for precise structural control of Si quantum dot networks for all-Si solar cells. <i>Nanoscale</i> , 2013 , 5, 7499-504	7.7	19
95	Progress and Opportunities for Cs Incorporated Perovskite Photovoltaics. <i>Trends in Chemistry</i> , 2020 , 2, 638-653	14.8	19
94	Air-stable PbS quantum dots synthesized with slow reaction kinetics via a PbBr ₂ precursor. <i>RSC Advances</i> , 2015 , 5, 68579-68586	3.7	18
93	Fluorescence origin and spectral broadening mechanism in atomically precise Au ₈ nanoclusters. <i>Nanoscale</i> , 2013 , 5, 10251-7	7.7	18
92	Extended hot carrier lifetimes observed in bulk In _{0.265} □ _{0.02} Ga _{0.735} N under high-density photoexcitation. <i>Applied Physics Letters</i> , 2016 , 108, 131904	3.4	18
91	Optical Probe Ion and Carrier Dynamics at the CH ₃ NH ₃ PbI ₃ Interface with Electron and Hole Transport Materials. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600467	4.6	18
90	Enhanced Power Conversion Efficiency via Hybrid Ligand Exchange Treatment of p-Type PbS Quantum Dots. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 22751-22759	9.5	17
89	Bright alloy type-II quantum dots and their application to light-emitting diodes. <i>Journal of Colloid and Interface Science</i> , 2018 , 510, 376-383	9.3	17
88	Electrical properties of self-organized nanostructures of alkanethiol-encapsulated gold particles. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2000 , 18, 2653		17
87	Stabilizing CsPbBr ₃ perovskite quantum dots on zirconium phosphate nanosheets through an ion exchange/surface adsorption strategy. <i>Chemical Engineering Journal</i> , 2020 , 381, 122735	14.7	17
86	Integrating Low-Cost Earth-Abundant Co-Catalysts with Encapsulated Perovskite Solar Cells for Efficient and Stable Overall Solar Water Splitting. <i>Advanced Functional Materials</i> , 2021 , 31, 2008245	15.6	17
85	Quantification of hot carrier thermalization in PbS colloidal quantum dots by power and temperature dependent photoluminescence spectroscopy. <i>RSC Advances</i> , 2016 , 6, 90846-90855	3.7	16
84	Heteroepitaxial growth of Cu ₂ ZnSnS ₄ thin film on sapphire substrate by radio frequency magnetron sputtering. <i>Applied Physics Letters</i> , 2014 , 104, 092103	3.4	16
83	Optimizing Surface Chemistry of PbS Colloidal Quantum Dot for Highly Efficient and Stable Solar Cells via Chemical Binding. <i>Advanced Science</i> , 2021 , 8, 2003138	13.6	16
82	Nanosecond long excited state lifetimes observed in hafnium nitride. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 169, 13-18	6.4	15
81	Can quantum dots help to mitigate urban overheating? An experimental and modelling study. <i>Solar Energy</i> , 2020 , 206, 308-316	6.8	15

80	Generation of hot carrier population in colloidal silicon quantum dots for high-efficiency photovoltaics. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 145, 391-396	6.4	15
79	Linking Phase Segregation and Photovoltaic Performance of Mixed-Halide Perovskite Films through Grain Size Engineering. <i>ACS Energy Letters</i> , 1649-1658	20.1	15
78	Improving carrier extraction in a PbSe quantum dot solar cell by introducing a solution-processed antimony-doped SnO ₂ buffer layer. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 9861-9866	7.1	15
77	Superior Self-Charged and -Powered Chemical Sensing with High Performance for NO ₂ Detection at Room Temperature. <i>Advanced Optical Materials</i> , 2020 , 8, 1901863	8.1	14
76	Fabrication and characterization of tin-based nanocrystals. <i>Journal of Applied Physics</i> , 2007 , 102, 114304	2.5	14
75	Accurate determination of the size distribution of Si nanocrystals from PL spectra. <i>RSC Advances</i> , 2015 , 5, 55119-55125	3.7	13
74	Light-activated inorganic CsPbBr ₃ perovskite for room-temperature self-powered chemical sensing. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 24187-24193	3.6	13
73	Free charges versus excitons: photoluminescence investigation of InGaN/GaN multiple quantum well nanorods and their planar counterparts. <i>Nanoscale</i> , 2018 , 10, 5358-5365	7.7	12
72	Time-resolved fluorescence anisotropy study of organic lead halide perovskite. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 151, 102-112	6.4	12
71	Enhancing the Efficiency and Stability of PbS Quantum Dot Solar Cells through Engineering an Ultrathin NiO Nanocrystalline Interlayer. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 46239-46246	9.5	12
70	Resonant Tunneling through Monolayer Si Colloidal Quantum Dots and Ge Nanocrystals. <i>Advanced Functional Materials</i> , 2017 , 27, 1605348	15.6	10
69	Difference in hot carrier cooling rate between Langmuir-Blodgett and drop cast PbS QD films due to strong electron-phonon coupling. <i>Nanoscale</i> , 2017 , 9, 17133-17142	7.7	10
68	Visualizing the Impact of Light Soaking on Morphological Domains in an Operational Cesium Lead Halide Perovskite Solar Cell. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 136-143	6.4	10
67	Complementary bulk and surface passivations for highly efficient perovskite solar cells by gas quenching. <i>Cell Reports Physical Science</i> , 2021 , 2, 100511	6.1	10
66	Size-dependent evolution of phonon confinement in colloidal Si nanoparticles. <i>Journal of Raman Spectroscopy</i> , 2015 , 46, 1110-1116	2.3	9
65	Control of Interdot Space and Dot Size in a Two-Dimensional Gold Nanodot Array. <i>Japanese Journal of Applied Physics</i> , 1999 , 38, L473-L476	1.4	9
64	On the combination of quantum dots with near-infrared reflective base coats to maximize their urban overheating mitigation potential. <i>Solar Energy</i> , 2020 , 211, 111-116	6.8	9
63	Deconstruction-assisted perovskite formation for sequential solution processing of Cs _{0.15} (MA _{0.7} FA _{0.3}) _{0.85} PbI ₃ solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 203, 110200	6.4	8

62	Effect of Pressing Pressure on the Performance of Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2019 , 2, 2358-2363	6.1	8
61	In situ formation of tin nanocrystals embedded in silicon nitride matrix. <i>Journal of Applied Physics</i> , 2009 , 105, 124303	2.5	8
60	Quantum Dot Passivation of Halide Perovskite Films with Reduced Defects, Suppressed Phase Segregation, and Enhanced Stability. <i>Advanced Science</i> , 2021 , e2102258	13.6	8
59	Quantum-Dot Tandem Solar Cells Based on a Solution-Processed Nanoparticle Intermediate Layer. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 2313-2318	9.5	8
58	MgCl passivated ZnO electron transporting layer to improve PbS quantum dot solar cells. <i>Nanotechnology</i> , 2019 , 30, 085403	3.4	8
57	Lateral growth of Ge nanocrystals in a thin Ge-rich silicon nitride layer. <i>Journal of Crystal Growth</i> , 2013 , 383, 36-42	1.6	7
56	Hot Carrier solar cell absorbers: Superstructures, materials and mechanisms for slowed carrier cooling 2012 ,		7
55	Electroluminescent Solar Cells Based on CsPbI ₃ Perovskite Quantum Dots. <i>Advanced Functional Materials</i> , 2108615	15.6	7
54	Ultrafast exciton transport at early times in quantum dot solids.. <i>Nature Materials</i> , 2022 ,	27	7
53	Hot Carrier Cooling in In _{0.17} Ga _{0.83} As/GaAs _{0.80} P _{0.20} Multiple Quantum Wells: The Effect of Barrier Thickness. <i>IEEE Journal of Photovoltaics</i> , 2016 , 6, 166-171	3.7	6
52	Solution-Processed Faraday Rotators Using Single Crystal Lead Halide Perovskites. <i>Advanced Science</i> , 2020 , 7, 1902950	13.6	6
51	In-situ fabrication and characterization of ordered Ge QDs in Si ₃ N ₄ matrix without barrier layers by rf-magnetron sputtering. <i>Applied Surface Science</i> , 2014 , 290, 167-171	6.7	6
50	Hot carrier solar cells: Challenges and recent progress 2010 ,		6
49	Homologous Bromides Treatment for Improving the Open-circuit Voltage of Perovskite Solar Cells. <i>Advanced Materials</i> , 2021 , e2106280	24	6
48	Grain Quality Engineering for Organic Metal Halide Perovskites Using Mixed Antisolvent Spraying Treatment. <i>Solar Rrl</i> , 2020 , 4, 1900397	7.1	6
47	Inelastic X-ray scattering measurements of III/V multiple quantum wells. <i>Applied Physics Letters</i> , 2017 , 110, 043102	3.4	5
46	Effect of vacuum thermal annealing on a molybdenum bilayer back contact deposited by radio-frequency magnetron sputtering for chalcogenide- and kesterite-based solar cells. <i>Journal of the Korean Physical Society</i> , 2017 , 71, 968-973	0.6	5
45	Scanning Electron Microscope Observation of Heterogeneous Three-Dimensional Nanoparticle Arrays Using DNA. <i>Japanese Journal of Applied Physics</i> , 2001 , 40, L521-L523	1.4	5

44	The importance of total hemispherical emittance in evaluating performance of building-integrated silicon and perovskite solar cells in insulated glazings. <i>Applied Energy</i> , 2020 , 276, 115490	10.7	5
43	Morphology effects on the bandgap of silicon nanocrystals Numerically modelled by a full multi-grid method. <i>Journal of Applied Physics</i> , 2017 , 121, 054306	2.5	4
42	Study of Photo-cathode Materials for Tandem Photoelectrochemical Cell for Direct Water Splitting. <i>Energy Procedia</i> , 2012 , 22, 10-14	2.3	4
41	Structural and photoluminescence properties of superlattice structures consisting of Sn-rich SiO ₂ and stoichiometric SiO ₂ layers. <i>Thin Solid Films</i> , 2011 , 520, 641-645	2.2	4
40	Magnetron Sputtered SnO ₂ Constituting Double Electron Transport Layers for Efficient PbS Quantum Dot Solar Cells. <i>Solar Rrl</i> , 2020 , 4, 2000218	7.1	3
39	Study on the Ultrafast Carrier Dynamics in the Bulk In _{0.265} GaN Thin Film. <i>Energy Procedia</i> , 2015 , 84, 1652-175	1.7	3
38	Dynamics of metal-induced crystallization of ultrathin Ge films by rapid thermal annealing. <i>Applied Physics Letters</i> , 2015 , 107, 232106	3.4	3
37	Residual stress study of silicon quantum dot in silicon carbide matrix by Raman measurement. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011 , 8, 185-188		3
36	Nanomaterials for third generation photovoltaics. <i>International Journal of Nanoparticles</i> , 2011 , 4, 200	0.4	3
35	Theoretical investigation of carrier transfer by an optical contacting scheme for optoelectronic application. <i>Journal of Applied Physics</i> , 2016 , 119, 153102	2.5	3
34	Direct Determination of Total Hemispherical Emittance of Perovskite and Silicon Solar Cells. <i>Cell Reports Physical Science</i> , 2020 , 1, 100008	6.1	2
33	Ab initio calculation of electronic transport properties between PbSe quantum dots facets with halide ligands (Cl, Br, I). <i>Japanese Journal of Applied Physics</i> , 2018 , 57, 08RF01	1.4	2
32	Hot carrier solar cell absorbers: materials, mechanisms and nanostructures 2014 ,		2
31	Doping of Silicon Quantum Dots Embedded in Nitride Matrix for All-Silicon Tandem Cells. <i>Japanese Journal of Applied Physics</i> , 2012 , 51, 10NE10	1.4	2
30	Heterogeneous nano-particle array for the realization of the hot carrier solar cell 2013 ,		2
29	Fabrication of Carbon Nanotube and Nanorod Arrays Using Nanoporous Templates. <i>Japanese Journal of Applied Physics</i> , 2005 , 44, 5289-5291	1.4	2
28	Grain Quality Engineering for Organic Metal Halide Perovskites Using Mixed Antisolvent Spraying Treatment. <i>Solar Rrl</i> , 2020 , 4, 2070012	7.1	2
27	The Effect of 4-tert-Butylpyridine Removal on Efficiency and Thermal Stability in Perovskite Solar Cells. <i>Journal of Photopolymer Science and Technology = [Fotopolyma Konwakai Shi]</i> , 2019 , 32, 715-720	0.7	2

26	A Review on Halide Perovskite Film Formation by Sequential Solution Processing for Solar Cell Applications. <i>Energy Technology</i> , 2020 , 8, 2070043	3.5	2
25	Potential for improved transport in core-shell CuInS ₂ nanoparticle solar cells from an Ag surface termination. <i>CrystEngComm</i> , 2018 , 20, 3381-3387	3.3	2
24	Silicate glass-to-glass hermetic bonding for encapsulation of next-generation optoelectronics: A review. <i>Materials Today</i> , 2021 , 47, 131-155	21.8	2
23	Immediate and Temporal Enhancement of Power Conversion Efficiency in Surface-Passivated Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 39178-39185	9.5	2
22	Perovskite Quantum Dot Solar Cells Fabricated from Recycled Lead-Acid Battery Waste 2022 , 4, 120-127		2
21	Nanoscale characterization of GaN/InGa _N multiple quantum wells on GaN nanorods by photoluminescence spectroscopy 2017 ,		1
20	Solar Cells Based on Hot Carriers and Quantum Dots 2019 , 175-213		1
19	Unveiling the Importance of Precursor Preparation for Highly Efficient and Stable Phenethylammonium-Based Perovskite Solar Cells. <i>Solar Rrl</i> , 2020 , 4, 1900463	7.1	1
18	Oxygen substitution and sulfur vacancies in NaBiS ₂ : a Pb-free candidate for solution processable solar cells 2017 ,		1
17	Preparation and characterization of Cu ₂ ZnGeS ₄ thin films by sulfurizing reactively sputtered precursors 2014 ,		1
16	Cu ₂ ZnSnS ₄ thin film solar cell fabricated by magnetron sputtering and sulfurization. <i>Materials Research Society Symposia Proceedings</i> , 2014 , 1638, 1		1
15	Fabrication of Two- and Three-Dimensional Structures of Nanoparticles Using LB Method and DNA Hybridization. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 704, 451		1
14	Simultaneous FeO Nanoparticle Formation and Catalyst-Driven Hydrothermal Cellulose Degradation. <i>ACS Omega</i> , 2021 , 6, 10790-10800	3.9	1
13	Passivating Quantum Dot Carrier Transport Layer with Metal Salts. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 28679-28688	9.5	1
12	Improving hole extraction for PbS quantum dot solar cells 2018 ,		1
11	Non-Fullerene Molecules: Hybrid Perovskite Quantum Dot/Non-Fullerene Molecule Solar Cells with Efficiency Over 15% (Adv. Funct. Mater. 27/2021). <i>Advanced Functional Materials</i> , 2021 , 31, 2170196	15.6	1
10	Enhancing the cooling potential of photoluminescent materials through evaluation of thermal and transmission loss mechanisms. <i>Scientific Reports</i> , 2021 , 11, 14725	4.9	0
9	Kinetics studies of thin film amorphous titanium niobium oxides for lithium ion battery anodes. <i>Electrochimica Acta</i> , 2021 , 388, 138544	6.7	0

- 8 Adjusting optical and fluorescent properties of quantum dots: Moving towards best optical heat-rejecting materials. *Solar Energy*, **2022**, 238, 272-279 6.8 o
- 7 Interfacial Area between Hetero-Epitaxial Al₂O₃ and Silicon. *Advanced Materials Interfaces*, **2017**, 4, 1700259 4.6
- 6 Growth of Highly (112) Oriented Cu₂ZnSnS₄ Thin Film on Sapphire Substrate by Radio Frequency Magnetron Sputtering. *Materials Research Society Symposia Proceedings*, **2014**, 1640, 1
- 5 Silicon-Based Photovoltaics. *Series in Optics and Optoelectronics*, **2013**, 749-812
- 4 A ultra-thin silicon nitride barrier layer implementation for silicon quantum dots in amorphous silicon carbide matrix in photovoltaic application. *Energy Procedia*, **2011**, 10, 271-281 2.3
- 3 Fabrication and Quantum Confinement Investigation of Ge Multiple Quantum Wells with Si₃N₄ Barriers. *ECS Transactions*, **2011**, 34, 1135-1143 1
- 2 Fabrication of Two- and Three-Dimensional Structures of Nanoparticles Using LB Method and DNA Hybridization. *Materials Research Society Symposia Proceedings*, **2001**, 707, 451
- 1 Unveiling the Importance of Precursor Preparation for Highly Efficient and Stable Phenethylammonium-Based Perovskite Solar Cells. *Solar Rrl*, **2020**, 4, 2070043 7.1