Jin Hyuck Heo

List of Publications by Year
in descending order

92	16,306	87401 40	46524 93
papers	citations	h-index	g-index

97	97	97	18213
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fully Scalable and Stable CsPbI₂Br Solar Cells Realized by an All-Spray-Coating Process. ACS Applied Materials & Interfaces, 2022, 14, 7926-7935.	4.0	18
2	Neutral-Colored Semitransparent Perovskite Solar Cells with Aperture Ratios Controlled via Laser Patterning. ACS Applied Energy Materials, 2022, 5, 3660-3667.	2.5	7
3	Spray-coated nanocrystalline CsPbBr3 perovskite thin-films for large area and efficient rigid and flexible light emitting diodes. Journal of Alloys and Compounds, 2022, 918, 165560.	2.8	9
4	Ni,Ti-co-doped MoO2 nanoparticles with high stability and improved conductivity for hole transporting material in planar metal halide perovskite solar cells. Journal of Industrial and Engineering Chemistry, 2021, 94, 376-383.	2.9	8
5	Efficient and Stable Graded CsPbI3â˜xBrx Perovskite Solar Cells and Submodules by Orthogonal Processable Spray Coating. Joule, 2021, 5, 481-494.	11.7	81
6	Enhanced Weak-Light Detection of Perovskite Photodetectors through Perovskite/Hole-Transport Material Interface Treatment. ACS Applied Materials & Interfaces, 2021, 13, 16775-16783.	4.0	21
7	Morphology controlled nanocrystalline CsPbBr3 thin-film for metal halide perovskite light emitting diodes. Journal of Industrial and Engineering Chemistry, 2021, 97, 417-425.	2.9	17
8	Self-powered flexible all-perovskite X-ray detectors with high sensitivity and fast response. IScience, 2021, 24, 102927.	1.9	17
9	Graphene quantum dot-embedded perovskite photodetectors with fast response and enhanced sensitivity through bulk defect passivation. Journal of Industrial and Engineering Chemistry, 2021, 100, 383-389.	2.9	1
10	Super Flexible Transparent Conducting Oxideâ€Free Organicâ€“Inorganic Hybrid Perovskite Solar Cells with 19.01% Efficiency (Active Areaâ€‰=â€‰1â€‰cm²). Solar Rrl, 2021, 5, 2100733.	3.1	10
11	Efficient Metal Halide Perovskite Solar Cells Prepared by Reproducible Electrospray Coating on Vertically Aligned TiO₂ Nanorod Electrodes. ACS Applied Materials & Interfaces, 2020, 12, 886-892.	4.0	7
12	Full-Color Spectrum Coverage by High-Color-Purity Perovskite Nanocrystal Light-Emitting Diodes. Cell Reports Physical Science, 2020, 1, 100177.	2.8	24
13	Synthesis of post-processable metal halide perovskite nanocrystals via modified ligand-assisted re-precipitation method and their applications to self-powered panchromatic photodetectors. Journal of Industrial and Engineering Chemistry, 2020, 92, 167-173.	2.9	12
14	Interstitial Engineering toward Stable Tin Halide Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000513.	3.1	9
15	Wetting-induced formation of void-free metal halide perovskite films by green ultrasonic spray coating for large-area mesoscopic perovskite solar cells. RSC Advances, 2020, 10, 33651-33661.	1.7	7
16	Dual-site mixed layer-structured FA_xCs_{3â˜x}Sb₂I₆Cl₃ Pb-free metal halide perovskite solar cells. RSC Advances, 2020, 10, 17724-17730.	1.7	8
17	Reproducible Dry Stamping Transfer of PEDOT:PSS Transparent Top Electrode for Flexible Semitransparent Metal Halide Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 10527-10534.	4.0	40
18	Large-Scale Synthesis of Uniform PbI₂(DMSO) Complex Powder by Solvent Extraction Method for Efficient Metal Halide Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 8233-8239.	4.0	22

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19	Chiral Stereoisomer Engineering of Electron Transporting Materials for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 1905951.	7.8	22
20	Chiral Stereoisomer Engineering: Chiral Stereoisomer Engineering of Electron Transporting Materials for Efficient and Stable Perovskite Solar Cells (Adv. Funct. Mater. 13/2020). Advanced Functional Materials, 2020, 30, 2070087.	7.8	1
21	Thermally Stable Inorganic CsPbI₂Br Mesoscopic Metal Halide Perovskite Solar Submodules. ACS Applied Materials & Interfaces, 2019, 11, 43066-43074.	4.0	21
22	Hysteresis-Less CsPbI₂Br Mesoscopic Perovskite Solar Cells with a High Open-Circuit Voltage Exceeding 1.3 V and 14.86% of Power Conversion Efficiency. ACS Applied Materials & Interfaces, 2019, 11, 19123-19131.	4.0	41
23	High performance solid-state PbS/CuS hetero-nanostructured quantum dots-sensitized solar cells. Journal of Industrial and Engineering Chemistry, 2019, 75, 164-170.	2.9	11
24	Enhancing performance and stability of perovskite solar cells using hole transport layer of small molecule and conjugated polymer blend. Journal of Power Sources, 2019, 418, 167-175.	4.0	28
25	Low temperature solution processable TiO2 nano-sol for electron transporting layer of flexible perovskite solar cells. Solar Energy Materials and Solar Cells, 2019, 194, 1-6.	3.0	30
26	Recent advancements in and perspectives on flexible hybrid perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 888-900.	5.2	60
27	Homochiral Asymmetricâ€Shaped Electronâ€Transporting Materials for Efficient Nonâ€Fullerene Perovskite Solar Cells. ChemSusChem, 2019, 12, 224-230.	3.6	32
28	Semitransparent FAPbI_{3â€‹}_xBr_x Perovskite Solar Cells Stable under Simultaneous Damp Heat (85 Â°C/85%) and 1 Sun Light Soaking. Advanced Materials Technologies, 2019, 4, 1800390.	3.0	22
29	Super-flexible bis(trifluoromethanesulfonyl)-amide doped graphene transparent conductive electrodes for photo-stable perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 8251-8258.	5.2	87
30	Three-Dimensional Structures Based on the Fusion of Chrysene and Spirobifluorene Chromophores for the Development of Blue OLEDs. Journal of Organic Chemistry, 2018, 83, 2640-2646.	1.7	20
31	Nonfullerene Electron Transporting Material Based on Naphthalene Diimide Small Molecule for Highly Stable Perovskite Solar Cells with Efficiency Exceeding 20%. Advanced Functional Materials, 2018, 28, 1800346.	7.8	83
32	Roles of SnX₂ (X = F, Cl, Br) Additives in Tin-Based Halide Perovskites toward Highly Efficient and Stable Lead-Free Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2018, 9, 6024-6031.	2.1	121
33	Flexible ITO films with atomically flat surfaces for high performance flexible perovskite solar cells. Nanoscale, 2018, 10, 20587-20598.	2.8	58
34	Development of Mixedâ€Cation Cs_xRb_{1â€“}_xPbX₃ Perovskite Quantum Dots and Their Fullâ€Color Film with High Stability and Wide Color Gamut. Advanced Optical Materials, 2018, 6, 1800295.	3.6	43
35	Highâ€Performance Nextâ€Generation Perovskite Nanocrystal Scintillator for Nondestructive Xâ€Ray Imaging. Advanced Materials, 2018, 30, e1801743.	11.1	328
36	Efficient Organicâ€“Inorganic Hybrid Flexible Perovskite Solar Cells Prepared by Lamination of Polytriarylamine/CH₃NH₃PbI₃/Anodized Ti Metal Substrate and Graphene/PDMS Transparent Electrode Substrate. ACS Applied Materials & Interfaces, 2018, 10, 31413-31421.	4.0	46

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37	Highly Stable All-Inorganic Pb-Free Perovskite Solar Cells. Journal of Nanoelectronics and Optoelectronics, 2018, 13, 1764-1768.	0.1	6
38	Planar Type Trivalent Bismuth Based Pb-Free Perovskite Solar Cells. Nanoscience and Nanotechnology Letters, 2018, 10, 591-595.	0.4	8
39	Formation of uniform PbS quantum dots by a spin-assisted successive precipitation and anion exchange reaction process using PbX2 (X = Br, I) and Na2S precursors. RSC Advances, 2017, 7, 3072-3077.	1.7	13
40	Inverted CH₃NH₃PbI₃ perovskite hybrid solar cells with improved flexibility by introducing a polymeric electron conductor. Journal of Materials Chemistry C, 2017, 5, 2883-2891.	2.7	20
41	Highly flexible InSnO electrodes on thin colourless polyimide substrate for high-performance flexible CH3NH3PbI3 perovskite solar cells. Journal of Power Sources, 2017, 341, 340-347.	4.0	86
42	Highly flexible, high-performance perovskite solar cells with adhesion promoted AuCl₃-doped graphene electrodes. Journal of Materials Chemistry A, 2017, 5, 21146-21152.	5.2	92
43	Development of Dopant-Free Donorâ€“Acceptor-type Hole Transporting Material for Highly Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 39511-39518.	4.0	42
44	Efficient and thermally stable inverted perovskite solar cells by introduction of non-fullerene electron transporting materials. Journal of Materials Chemistry A, 2017, 5, 20615-20622.	5.2	74
45	Highly stable semi-transparent CH3NH3PbI3 sandwich type perovskite solar sub-module with neutral color. Materials Today Energy, 2017, 5, 280-286.	2.5	11
46	Scalable synthesis of Ti-doped MoO2 nanoparticle-hole-transporting-material with high moisture stability for CH3NH3PbI3 perovskite solar cells. Chemical Engineering Journal, 2017, 330, 698-705.	6.6	37
47	Enhanced Efficiency and Long-Term Stability of Perovskite Solar Cells by Synergistic Effect of Nonhygroscopic Doping in Conjugated Polymer-Based Hole-Transporting Layer. ACS Applied Materials & Interfaces, 2017, 9, 43846-43854.	4.0	51
48	Memory effect behavior with respect to the crystal grain size in the organic-inorganic hybrid perovskite nonvolatile resistive random access memory. Scientific Reports, 2017, 7, 16586.	1.6	53
49	High-Performance Solid-State PbS Quantum Dot-Sensitized Solar Cells Prepared by Introduction of Hybrid Perovskite Interlayer. ACS Applied Materials & Interfaces, 2017, 9, 41104-41110.	4.0	22
50	Facile scalable synthesis of MoO2 nanoparticles by new solvothermal cracking process and their application to hole transporting layer for CH3NH3PbI3 planar perovskite solar cells. Chemical Engineering Journal, 2017, 310, 179-186.	6.6	30
51	Mesoscopic CH₃NH₃PbI₃ perovskite solar cells using TiO₂ inverse opal electron-conducting scaffolds. Journal of Materials Chemistry A, 2017, 5, 1972-1977.	5.2	39
52	Recent advances of flexible hybrid perovskite solar cells. Journal of the Korean Physical Society, 2017, 71, 593-607.	0.3	16
53	CH₃NH₃PbBr₃â€“CH₃NH₃PbI₃ Perovskiteâ€“Perovskite Tandem Solar Cells with Exceeding 2.2 V Open Circuit Voltage. Advanced Materials, 2016, 28, 5121-5125.	11.1	195
54	Solar Cells: Highly Efficient Organic Hole Transporting Materials for Perovskite and Organic Solar Cells with Long-Term Stability (Adv. Mater. 4/2016). Advanced Materials, 2016, 28, 685-685.	11.1	0

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55	Effect of multi-armed triphenylamine-based hole transporting materials for high performance perovskite solar cells. Chemical Science, 2016, 7, 5517-5522.	3.7	78
56	CH₃NH₃PbI₃planar perovskite solar cells with antireflection and self-cleaning function layers. Journal of Materials Chemistry A, 2016, 4, 7573-7579.	5.2	78
57	Efficiency enhancement of semi-transparent sandwich type CH₃NH₃PbI₃ perovskite solar cells with island morphology perovskite film by introduction of polystyrene passivation layer. Journal of Materials Chemistry A, 2016, 4, 16324-16329.	5.2	54
58	Highly efficient CH₃NH₃PbI_{3â^'x}Cl_x mixed halide perovskite solar cells prepared by re-dissolution and crystal grain growth via spray coating. Journal of Materials Chemistry A, 2016, 4, 17636-17642.	5.2	223
59	Enhancement of charge transport properties of small molecule semiconductors by controlling fluorine substitution and effects on photovoltaic properties of organic solar cells and perovskite solar cells. Chemical Science, 2016, 7, 6649-6661.	3.7	52
60	Highly efficient metal halide substituted CH3NH3I(PbI2)1â^'X(CuBr2)X planar perovskite solar cells. Nano Energy, 2016, 27, 330-339.	8.2	106
61	A discussion on the origin and solutions of hysteresis in perovskite hybrid solar cells. Journal Physics D: Applied Physics, 2016, 49, 473001.	1.3	45
62	Effects of thermal treatment on organic-inorganic hybrid perovskite films and luminous efficiency of light-emitting diodes. Current Applied Physics, 2016, 16, 1069-1074.	1.1	23
63	Highly Efficient Organic Hole Transporting Materials for Perovskite and Organic Solar Cells with Longâ€Term Stability. Advanced Materials, 2016, 28, 686-693.	11.1	166
64	Reproducible formation of uniform CH3NH3PbI3â^'xClx mixed halide perovskite film by separation of the powder formation and spin-coating process. Journal of Power Sources, 2016, 310, 130-136.	4.0	23
65	Highly reproducible, efficient hysteresis-less CH₃NH₃PbI_{3â^'x}Cl_xplanar hybrid solar cells without requiring heat-treatment. Nanoscale, 2016, 8, 2554-2560.	2.8	75
66	Highly efficient low temperature solution processable planar type CH₃NH₃PbI₃ perovskite flexible solar cells. Journal of Materials Chemistry A, 2016, 4, 1572-1578.	5.2	223
67	Highly efficient solid-state mesoscopic PbS with embedded CuS quantum dot-sensitized solar cells. Journal of Materials Chemistry A, 2016, 4, 785-790.	5.2	42
68	Solar Cells: Planar CH3NH3PbI3Perovskite Solar Cells with Constant 17.2% Average Power Conversion Efficiency Irrespective of the Scan Rate (Adv. Mater. 22/2015). Advanced Materials, 2015, 27, 3464-3464.	11.1	3
69	Hysteresis-less mesoscopic CH3NH3PbI3 perovskite hybrid solar cells by introduction of Li-treated TiO2 electrode. Nano Energy, 2015, 15, 530-539.	8.2	246
70	Overcoming the electroluminescence efficiency limitations of perovskite light-emitting diodes. Science, 2015, 350, 1222-1225.	6.0	2,440
71	Lightâ€Emitting Diodes: Multicolored Organic/Inorganic Hybrid Perovskite Lightâ€Emitting Diodes (Adv.) Tj ETQq1 1 0.784314 rgBT /Ov	11.1	8
72	Planar CH₃NH₃PbI₃ Perovskite Solar Cells with Constant 17.2% Average Power Conversion Efficiency Irrespective of the Scan Rate. Advanced Materials, 2015, 27, 3424-3430.	11.1	435

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73	Exceptional stability of Mg-implemented PbS quantum dot solar cells realized by galvanic corrosion protection. Journal of Materials Chemistry A, 2015, 3, 8433-8437.	5.2	5
74	Recent Progress of Innovative Perovskite Hybrid Solar Cells. Israel Journal of Chemistry, 2015, 55, 966-977.	1.0	34
75	Hysteresis-less inverted CH₃NH₃PbI₃ planar perovskite hybrid solar cells with 18.1% power conversion efficiency. Energy and Environmental Science, 2015, 8, 1602-1608.	15.6	1,079
76	Oxide-free Sb2S3 sensitized solar cells fabricated by spin and heat-treatment of Sb(III)(thioacetamide)2Cl3. Organic Electronics, 2015, 21, 155-159.	1.4	33
77	A [2,2]paracyclophane triarylamine-based hole-transporting material for high performance perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 24215-24220.	5.2	87
78	Stable semi-transparent CH₃NH₃PbI₃planar sandwich solar cells. Energy and Environmental Science, 2015, 8, 2922-2927.	15.6	109
79	Multicolored Organic/Inorganic Hybrid Perovskite Lightâ€Emitting Diodes. Advanced Materials, 2015, 27, 1248-1254.	11.1	1,077
80	Robust and scale-up synthesis of hollow TiO2 nanospheres with sub-100-nm scale by templating of PS-b-P2VP nanospheres. Macromolecular Research, 2014, 22, 1-3.	1.0	4
81	Synthesis of PS-b-P2VP di-block copolymer particles with internal structure via simple reprecipitation method. Macromolecular Research, 2014, 22, 324-328.	1.0	7
82	PbS Colloidal Quantumâ€Dotâ€Sensitized Inorganicâ€“Organic Hybrid Solar Cells with Radialâ€Directional Charge Transport. ChemPhysChem, 2014, 15, 1024-1027.	1.0	17
83	Planar CH₃NH₃PbBr₃ Hybrid Solar Cells with 10.4% Power Conversion Efficiency, Fabricated by Controlled Crystallization in the Spinâ€Coating Process. Advanced Materials, 2014, 26, 8179-8183.	11.1	449
84	Highly reproducible planar Sb₂S₃-sensitized solar cells based on atomic layer deposition. Nanoscale, 2014, 6, 14549-14554.	2.8	182
85	CH₃NH₃PbI₃/poly-3-hexylthiophen perovskite mesoscopic solar cells: Performance enhancement by Li-assisted hole conduction. Physica Status Solidi - Rapid Research Letters, 2014, 8, 816-821.	1.2	68
86	Improvement of nonlinear response for the power conversion efficiency with light intensities in cobalt complex electrolyte system. Chemical Physics Letters, 2013, 573, 63-69.	1.2	11
87	Chemical Management for Colorful, Efficient, and Stable Inorganicâ€“Organic Hybrid Nanostructured Solar Cells. Nano Letters, 2013, 13, 1764-1769.	4.5	4,144
88	Efficient inorganicâ€“organic hybrid heterojunction solar cells containing perovskite compound and polymeric hole conductors. Nature Photonics, 2013, 7, 486-491.	15.6	2,423
89	A Study on Formation of Vertically Aligned ZnO Nanorods Arrays on a Rough FTO Transparent Electrode by the Introduction of TiO₂Crystalline Nano-sol Blocking Interlayer. Korean Chemical Engineering Research, 2013, 51, 774-779.	0.2	1
90	Air-stable and efficient inorganicâ€“organic heterojunction solar cells using PbS colloidal quantum dots co-capped by 1-dodecanethiol and oleic acid. Physical Chemistry Chemical Physics, 2012, 14, 14999.	1.3	36

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91	Sb₂S₃-Sensitized Photoelectrochemical Cells: Open Circuit Voltage Enhancement through the Introduction of Poly-3-hexylthiophene Interlayer. Journal of Physical Chemistry C, 2012, 116, 20717-20721.	1.5	45
92	Large Area, High Performance and Stable Perovskite Light Emitting Diodes. SSRN Electronic Journal, 0, , .	0.4	1