Hui-Seon Kim

List of Publications by Year
in descending order

57 papers	16,733 citations	117453 34 h-index	168136 53 g-index
59 all docs	59 docs citations	59 times ranked	14673 citing authors

#	Article	IF	Citations
1	Lead Iodide Perovskite Sensitized All-Solid-State Submicron Thin Film Mesoscopic Solar Cell with Efficiency Exceeding 9%. Scientific Reports, 2012, 2, 591.	1.6	6,763
2	Formamidinium and Cesium Hybridization for Photoâ€•and Moistureâ€Stable Perovskite Solar Cell. Advanced Energy Materials, 2015, 5, 1501310.	10.2	1,350
3	Parameters Affecting <i>I</i>â€“<i>V</i> Hysteresis of CH₃NH₃PbI₃ Perovskite Solar Cells: Effects of Perovskite Crystal Size and Mesoporous TiO₂ Layer. Journal of Physical Chemistry Letters, 2014, 5, 2927-2934.	2.1	974
4	High Efficiency Solid-State Sensitized Solar Cell-Based on Submicrometer Rutile TiO₂ Nanorod and CH₃NH₃PbI₃ Perovskite Sensitizer. Nano Letters, 2013, 13, 2412-2417.	4.5	908
5	Lewis Acidâ€“Base Adduct Approach for High Efficiency Perovskite Solar Cells. Accounts of Chemical Research, 2016, 49, 311-319.	7.6	878
6	Mechanism of carrier accumulation in perovskite thin-absorber solar cells. Nature Communications, 2013, 4, 2242.	5.8	760
7	Organolead Halide Perovskite: New Horizons in Solar Cell Research. Journal of Physical Chemistry C, 2014, 118, 5615-5625.	1.5	616
8	11% Efficient Perovskite Solar Cell Based on ZnO Nanorods: An Effective Charge Collection System. Journal of Physical Chemistry C, 2014, 118, 16567-16573.	1.5	611
9	Control of <i>I</i>â€“<i>V</i> Hysteresis in CH₃NH₃PbI₃ Perovskite Solar Cell. Journal of Physical Chemistry Letters, 2015, 6, 4633-4639.	2.1	430
10	Morphology-photovoltaic property correlation in perovskite solar cells: One-step versus two-step deposition of CH3NH3PbI3. APL Materials, 2014, 2, .	2.2	399
11	Material and Device Stability in Perovskite Solar Cells. ChemSusChem, 2016, 9, 2528-2540.	3.6	256
12	Bifunctional Organic Spacers for Formamidinium-Based Hybrid Dionâ€“Jacobson Two-Dimensional Perovskite Solar Cells. Nano Letters, 2019, 19, 150-157.	4.5	218
13	Novel p-dopant toward highly efficient and stable perovskite solar cells. Energy and Environmental Science, 2018, 11, 2985-2992.	15.6	216
14	Effect of Selective Contacts on the Thermal Stability of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 7148-7153.	4.0	203
15	Ferroelectric Polarization in CH₃NH₃PbI₃ Perovskite. Journal of Physical Chemistry Letters, 2015, 6, 1729-1735.	2.1	180
16	Real-Space Imaging of the Atomic Structure of Organicâ€“Inorganic Perovskite. Journal of the American Chemical Society, 2015, 137, 16049-16054.	6.6	155
17	Effects of Seed Layer on Growth of ZnO Nanorod and Performance of Perovskite Solar Cell. Journal of Physical Chemistry C, 2015, 119, 10321-10328.	1.5	151
18	Morphological and compositional progress in halide perovskite solar cells. Chemical Communications, 2019, 55, 1192-1200.	2.2	136

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19	High efficiency solar cells combining a perovskite and a silicon heterojunction solar cells via an optical splitting system. Applied Physics Letters, 2015, 106, .	1.5	119
20	Boosting the Efficiency of Perovskite Solar Cells with CsBrâ€Modified Mesoporous TiO₂ Beads as Electronâ€Selective Contact. Advanced Functional Materials, 2018, 28, 1705763.	7.8	115
21	Wafer-scale reliable switching memory based on 2-dimensional layered organicâ€“inorganic halide perovskite. Nanoscale, 2017, 9, 15278-15285.	2.8	113
22	Pseudo First-Order Adsorption Kinetics of N719 Dye on TiO₂ Surface. ACS Applied Materials & Interfaces, 2011, 3, 1953-1957.	4.0	101
23	Decoupling the effects of defects on efficiency and stability through phosphonates in stable halide perovskite solar cells. Joule, 2021, 5, 1246-1266.	11.7	91
24	Importance of tailoring lattice strain in halide perovskite crystals. NPG Asia Materials, 2020, 12, .	3.8	88
25	Improvement of mass transport of the [Co(bpy)3]II/III redox couple by controlling nanostructure of TiO2 films in dye-sensitized solar cells. Chemical Communications, 2011, 47, 12637.	2.2	71
26	Empowering Semiâ€Transparent Solar Cells with Thermalâ€Mirror Functionality. Advanced Energy Materials, 2016, 6, 1502466.	10.2	68
27	Dopant Engineering for Spiroâ€OMeTAD Holeâ€Transporting Materials towards Efficient Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2102124.	7.8	67
28	Acridine-based novel hole transporting material for high efficiency perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 7603-7611.	5.2	57
29	Surface Reconstruction Engineering with Synergistic Effect of Mixedâ€Salt Passivation Treatment toward Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2102902.	7.8	57
30	Impact of Selective Contacts on Long-Term Stability of CH₃NH₃PbI₃ Perovskite Solar Cells. Journal of Physical Chemistry C, 2016, 120, 27840-27848.	1.5	47
31	Outstanding Passivation Effect by a Mixed-Salt Interlayer with Internal Interactions in Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 3159-3167.	8.8	47
32	Effect of Cs-Incorporated NiO_{<i>x</i>} on the Performance of Perovskite Solar Cells. ACS Omega, 2017, 2, 9074-9079.	1.6	43
33	Sustainable Green Process for Environmentally Viable Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 1154-1177.	8.8	43
34	Interfacial Engineering of Metal Oxides for Highly Stable Halide Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800367.	1.9	39
35	PbZrTiO₃ ferroelectric oxide as an electron extraction material for stable halide perovskite solar cells. Sustainable Energy and Fuels, 2019, 3, 382-389.	2.5	35
36	Power output stabilizing feature in perovskite solar cells at operating condition: Selective contact-dependent charge recombination dynamics. Nano Energy, 2019, 61, 126-131.	8.2	35

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37	Revealing the Mechanism of Doping of <i>spiro</i>-MeOTAD via Zn Complexation in the Absence of Oxygen and Light. ACS Energy Letters, 2020, 5, 1271-1277.	8.8	29
38	Mesoscopic perovskite solar cells with an admixture of nanocrystalline TiO₂and Al₂O₃: role of interconnectivity of TiO₂in charge collection. Nanoscale, 2016, 8, 6341-6351.	2.8	26
39	Photoinduced Lattice Symmetry Enhancement in Mixed Hybrid Perovskites and Its Beneficial Effect on the Recombination Behavior. Advanced Optical Materials, 2019, 7, 1801512.	3.6	26
40	3D/2D Bilayerd Perovskite Solar Cells with an Enhanced Stability and Performance. Materials, 2020, 13, 3868.	1.3	25
41	Reduced Graphene Oxide Improves Moisture and Thermal Stability of Perovskite Solar Cells. Cell Reports Physical Science, 2020, 1, 100053.	2.8	24
42	Liquid State and Zombie Dye Sensitized Solar Cells with Copper Bipyridine Complexes Functionalized with Alkoxy Groups. Journal of Physical Chemistry C, 2020, 124, 7071-7081.	1.5	24
43	Role of LiTFSI in high T_gtriphenylamine-based hole transporting material in perovskite solar cell. RSC Advances, 2016, 6, 68553-68559.	1.7	19
44	Progress of Perovskite Solar Modules. Advanced Energy and Sustainability Research, 2021, 2, 2000051.	2.8	19
45	Correction to â€œParameters Affecting <i>I</i>â€“<i>V</i> Hysteresis of CH₃NH₃PbI₃ Perovskite Solar Cells: Effects of Perovskite Crystal Size and Mesoporous TiO₂ Layerâ€ Journal of Physical Chemistry Letters, 2014, 5, 3434-3434.	2.1	17
46	Challenges for Thermally Stable Spiro-MeOTAD toward the Market Entry of Highly Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 34220-34227.	4.0	17
47	Multiple-Stage Structure Transformation of Organic-Inorganic Hybrid Perovskite<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CH</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></ Physical Review X, 2016, 6, .	2.8	13
48	Effect of Overlayer Thickness of Hole Transport Material on Photovoltaic Performance in Solid-Sate Dye-Sensitized Solar Cell. Bulletin of the Korean Chemical Society, 2012, 33, 670-674.	1.0	13
49	Design, synthesis and characterization of 1,8-naphthalimide based fullerene derivative as electron transport material for inverted perovskite solar cells. Synthetic Metals, 2019, 249, 25-30.	2.1	10
50	Current-voltage analysis: lessons learned from hysteresis. , 2020, , 81-108.		9
51	Evaluation of Limiting Factors Affecting Photovoltaic Performance of Lowâ€Temperatureâ€Processed TiO₂ Films in Dyeâ€Sensitized Solar Cells. ChemPhysChem, 2014, 15, 1098-1105.	1.0	7
52	Dependence of porosity, charge recombination kinetics and photovoltaic performance on annealing condition of TiO2 films. Frontiers of Optoelectronics in China, 2011, 4, 59-64.	0.2	5
53	A Sharp Focus on Perovskite Solar Cells at Sungkyun International Solar Forum (SISF). ACS Energy Letters, 2016, 1, 500-502.	8.8	4
54	APbI3 (AÂ=ÂCH3NH3 and HC(NH2)2) Perovskite Solar Cells: From Sensitization to Planar Heterojunction. , 2016, , 223-253.		3

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55	2D White-Light Spectroscopy: Application to Lead-Halide Perovskites with Mixed Cations. ACS Symposium Series, 0, , 135-151.	0.5	1
56	Effects of domain size in polycrystalline perovskite organic-inorganic hybrids investigated by spatially resolved optical spectroscopy. , 2015, , .		0
57	Intrinsic Raman signatures of pristine hybrid perovskite CH₃NH₃PbI₃ and its multiple stages of structure transformation. , 2016, , .		0