Sanghyun Paek

List of Publications by Year
in descending order

53 papers	3,266 citations	185998 28 h-index	182168 51 g-index
55 all docs	55 docs citations	55 times ranked	4427 citing authors

#	Article	IF	Citations
1	Greenâ€Chemistryâ€Inspired Synthesis of Cyclobutaneâ€Based Holeâ€Selective Materials for Highly Efficient Perovskite Solar Cells and Modules. Angewandte Chemie, 2022, 134, .	1.6	4
2	Greenâ€Chemistryâ€Inspired Synthesis of Cyclobutaneâ€Based Holeâ€Selective Materials for Highly Efficient Perovskite Solar Cells and Modules. Angewandte Chemie - International Edition, 2022, 61, .	7.2	23
3	Synthesis, crystal structure and photophysical properties of chlorido[2-(2â€²,6â€²-difluoro-2,3â€²-bipyridin-6-yl-Îº<i>N</i>) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 662 Td (¹) Crystallographica Section E: Crystallographic Communications, 2021, 77, 107-110.	0.2	1
4	Cation optimization for <i>burn-in loss-free</i> perovskite solar devices. Journal of Materials Chemistry A, 2021, 9, 5374-5380.	5.2	6
5	Effect of illumination and applied potential on the electrochemical impedance spectra in triple cation (FA/MA/Cs) 3D and 2D/3D perovskite solar cells. Journal of Electroanalytical Chemistry, 2021, 902, 115800.	1.9	9
6	Synthesis, crystal structure and photophysical properties of bis[2,6-difluoro-3-(pyridin-2-yl)pyridine-Îº<i>N</i>](trifluoromethanesulfonato-Îº<i>O</i>)silver(I). Acta Crystallographica Section E: Crystallographic Communications, 2021, 77, 1224-1228.	0.2	0
7	Novel Anthracene HTM Containing TIPs for Perovskite Solar Cells. Processes, 2021, 9, 2249.	1.3	3
8	Band-bending induced passivation: high performance and stable perovskite solar cells using a perhydropoly(silazane) precursor. Energy and Environmental Science, 2020, 13, 1222-1230.	15.6	114
9	Doped but Stable: Spirobisacridine Hole Transporting Materials for Hysteresis-Free and Stable Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 1792-1800.	6.6	39
10	Effective Preparation of Nanoscale CH₃NH₃PbI₃ Perovskite Photosensitizers for Mesoporous TiO₂â€Based Solar Cells by Successive Precursor Layer Adsorption and Reaction Process. Energy Technology, 2020, 8, 1901186.	1.8	3
11	Dynamical evolution of the 2D/3D interface: a hidden driver behind perovskite solar cell instability. Journal of Materials Chemistry A, 2020, 8, 2343-2348.	5.2	112
12	Gradient band structure: high performance perovskite solar cells using poly(bisphenol A) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302 Td (a	5.2	14
13	Molecular Design and Operational Stability: Toward Stable 3D/2D Perovskite Interlayers. Advanced Science, 2020, 7, 2001014.	5.6	43
14	Dâ€"Ï€â€"Aâ€Type Triazatruxeneâ€Based Dopantâ€Free Hole Transporting Materials for Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000173.	3.1	33
15	Selfâ€Crystallized Multifunctional 2D Perovskite for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 1910620.	7.8	68
16	Enhanced stability of Î±-phase FAPbI₃perovskite solar cells by insertion of 2D (PEA)₂PbI₄nanosheets. Journal of Materials Chemistry A, 2020, 8, 8058-8064.	5.2	45
17	Assessing mobile ions contributions to admittance spectra and current-voltage characteristics of 3D and 2D/3D perovskite solar cells. Solar Energy Materials and Solar Cells, 2020, 215, 110670.	3.0	15
18	Elucidating the Doping Mechanism in Fluoreneâ€"Dithiophene-Based Hole Selective Layer Employing Ultrahydrophobic Ionic Liquid Dopant. ACS Applied Materials & Interfaces, 2020, 12, 9395-9403.	4.0	26

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19	Carbazole-Terminated Isomeric Hole-Transporting Materials for Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 19710-19717.	4.0	28
20	Detection of voltage pulse width effect on charge accumulation in PSCs using EFISHG measurement. Results in Physics, 2020, 17, 103063.	2.0	2
21	Perovskite Solar Cells: 18% Efficiency Using Zn(II) and Cu(II) Octakis(diarylamine)phthalocyanines as Hole-Transporting Materials. ACS Applied Energy Materials, 2019, 2, 6195-6199.	2.5	12
22	Dimensionally Engineered Perovskite Heterostructure for Photovoltaic and Optoelectronic Applications. Advanced Energy Materials, 2019, 9, 1902470.	10.2	40
23	Crystal Orientation Drives the Interface Physics at Two/Three-Dimensional Hybrid Perovskites. Journal of Physical Chemistry Letters, 2019, 10, 5713-5720.	2.1	47
24	Optoelectronic Properties of Layered Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900126.	3.1	13
25	Stable perovskite solar cells using tin acetylacetonate based electron transporting layers. Energy and Environmental Science, 2019, 12, 1910-1917.	15.6	57
26	Molecular engineering of enamine-based small organic compounds as hole-transporting materials for perovskite solar cells. Journal of Materials Chemistry C, 2019, 7, 2717-2724.	2.7	19
27	Inkjetâ€Printed Mesoporous TiO₂ and Perovskite Layers for High Efficiency Perovskite Solar Cells. Energy Technology, 2019, 7, 317-324.	1.8	67
28	Degradation analysis in mixed (MAPbI3 and MAPbBr3) perovskite solar cells under thermal stress. Journal of Materials Science: Materials in Electronics, 2019, 30, 1354-1359.	1.1	11
29	Stability in 3D and 2D/3D hybrid perovskite solar cells studied by EFISHG and IS techniques under light and heat soaking. Organic Electronics, 2019, 66, 7-12.	1.4	18
30	Diphenylamineâ€Substituted Carbazoleâ€Based Hole Transporting Materials for Perovskite Solar Cells: Influence of Isomeric Derivatives. Advanced Functional Materials, 2018, 28, 1704351.	7.8	95
31	Selective growth of layered perovskites for stable and efficient photovoltaics. Energy and Environmental Science, 2018, 11, 952-959.	15.6	305
32	Efficient Planar Perovskite Solar Cells Using Passivated Tin Oxide as an Electron Transport Layer. Advanced Science, 2018, 5, 1800130.	5.6	120
33	Unsymmetrical and Symmetrical Zn(II) Phthalocyanines as Hole-Transporting Materials for Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 2399-2404.	2.5	16
34	A Facile Preparative Route of Nanoscale Perovskites over Mesoporous Metal Oxide Films and Their Applications to Photosensitizers and Light Emitters. Advanced Functional Materials, 2018, 28, 1803801.	7.8	17
35	Pyridination of hole transporting material in perovskite solar cells questions the long-term stability. Journal of Materials Chemistry C, 2018, 6, 8874-8878.	2.7	67
36	Carbazole-based enamine: Low-cost and efficient hole transporting material for perovskite solar cells. Nano Energy, 2017, 32, 551-557.	8.2	97

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37	Femtosecond Chargeâ€Injection Dynamics at Hybrid Perovskite Interfaces. ChemPhysChem, 2017, 18, 2381-2389.	1.0	24
38	Methoxydiphenylamine-substituted fluorene derivatives as hole transporting materials: role of molecular interaction on device photovoltaic performance. Scientific Reports, 2017, 7, 150.	1.6	22
39	Molecular engineering of face-on oriented dopant-free hole transporting material for perovskite solar cells with 19% PCE. Journal of Materials Chemistry A, 2017, 5, 7811-7815.	5.2	209
40	Highly efficient perovskite solar cells with a compositionally engineered perovskite/hole transporting material interface. Energy and Environmental Science, 2017, 10, 621-627.	15.6	436
41	Approaches for Selective Synthesis of Ullazine Donorâ€“Acceptor Systems. Chemistry - A European Journal, 2017, 23, 17209-17212.	1.7	15
42	Dopantâ€Free Holeâ€Transporting Materials for Stable and Efficient Perovskite Solar Cells. Advanced Materials, 2017, 29, 1606555.	11.1	171
43	Lowâ€Cost Perovskite Solar Cells Employing Dimethoxydiphenylamineâ€Substituted Bistricyclic Aromatic Enes as Hole Transport Materials. ChemSusChem, 2017, 10, 3825-3832.	3.6	37
44	Enhanced charge collection with passivation of the tin oxide layer in planar perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 12729-12734.	5.2	103
45	Highly Efficient Perovskite Solar Cells Employing an Easily Attainable Bifluorenylideneâ€Based Holeâ€Transporting Material. Angewandte Chemie, 2016, 128, 7590-7594.	1.6	37
46	Highly Efficient Perovskite Solar Cells Employing an Easily Attainable Bifluorenylideneâ€Based Holeâ€Transporting Material. Angewandte Chemie - International Edition, 2016, 55, 7464-7468.	7.2	165
47	PbI₂â€“HMPA Complex Pretreatment for Highly Reproducible and Efficient CH₃NH₃PbI₃ Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 14380-14387.	6.6	107
48	Beneficial Role of Reduced Graphene Oxide for Electron Extraction in Highly Efficient Perovskite Solar Cells. ChemSusChem, 2016, 9, 3040-3044.	3.6	73
49	A highly hindered bithiophene-functionalized dispiro-oxepine derivative as an efficient hole transporting material for perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 18259-18264.	5.2	78
50	A dual-functional asymmetric squaraine-based low band gap hole transporting material for efficient perovskite solar cells. Nanoscale, 2016, 8, 6335-6340.	2.8	32
51	Silolothiophene-linked triphenylamines as stable hole transporting materials for high efficiency perovskite solar cells. Energy and Environmental Science, 2015, 8, 2946-2953.	15.6	163
52	Growth of layered perovskites for stable and efficient photovoltaics. , 0, , .		0
53	Blue Phosphorescent Platinum(IV) Complex Bearing Bipyridine Ligand for Potential Application in Organic Light-Emitting Diodes (OLEDs). Canadian Journal of Chemistry, 0, , .	0.6	2