

Chengwu Shi

List of Publications by Year in descending order

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52
papers

822
citations

471509

17
h-index

552781

26
g-index

52
all docs

52
docs citations

52
times ranked

1100
citing authors

#	ARTICLE	IF	CITATIONS
1	The adsorption of 4-tert-butylpyridine on the nanocrystalline TiO ₂ and Raman spectra of dye-sensitized solar cells in situ. <i>Vibrational Spectroscopy</i> , 2005, 39, 99-105.	2.2	73
2	Preparation of ultra-thin and high-quality WO ₃ compact layers and comparison of WO ₃ and TiO ₂ compact layer thickness in planar perovskite solar cells. <i>Journal of Solid State Chemistry</i> , 2016, 238, 223-228.	2.9	50
3	Combination of short-length TiO ₂ nanorod arrays and compact PbS quantum-dot thin films for efficient solid-state quantum-dot-sensitized solar cells. <i>Applied Surface Science</i> , 2017, 410, 8-13.	6.1	43
4	A two-layer structured PbI ₂ thin film for efficient planar perovskite solar cells. <i>Nanoscale</i> , 2015, 7, 12092-12095.	5.6	40
5	Pyrolysis preparation of Cu ₂ ZnSnS ₄ thin film and its application to counter electrode in quantum dot-sensitized solar cells. <i>Electrochimica Acta</i> , 2014, 118, 41-44.	5.2	38
6	PbI ₂ : A new precursor solution for efficient planar perovskite solar cell by vapor-assisted solution process. <i>Applied Surface Science</i> , 2015, 357, 2372-2377.	6.1	37
7	Influence of PbCl ₂ content in PbI ₂ solution of DMF on the absorption, crystal phase, morphology of lead halide thin films and photovoltaic performance in planar perovskite solar cells. <i>Journal of Solid State Chemistry</i> , 2015, 231, 20-24.	2.9	30
8	Structural and electrochemical characterization of LiFePO ₄ /C prepared by a sol-gel route with long- and short-chain carbon sources. <i>Journal of Solid State Electrochemistry</i> , 2009, 13, 921-926.	2.5	27
9	Nb-Doping TiO ₂ Electron Transporting Layer for Efficient Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2018, 1, 2576-2581.	5.1	26
10	Facile synthesis of simple arylamine-substituted naphthalene derivatives as hole-transporting materials for efficient and stable perovskite solar cells. <i>Journal of Power Sources</i> , 2019, 425, 87-93.	7.8	26
11	Two-dimensional triphenylene cored hole-transporting materials for efficient perovskite solar cells. <i>Chemical Communications</i> , 2020, 56, 1879-1882.	4.1	25
12	All-solid-state quantum-dot-sensitized solar cells with compact PbS quantum-dot thin films and TiO ₂ nanorod arrays. <i>Ceramics International</i> , 2017, 43, 10052-10056.	4.8	22
13	Soluble tetra-methoxytriphenylamine substituted zinc phthalocyanine as dopant-free hole transporting materials for perovskite solar cells. <i>Organic Electronics</i> , 2019, 69, 248-254.	2.6	22
14	Gradient-band-gap strategy for efficient solid-state PbS quantum-dot sensitized solar cells. <i>Nanoscale</i> , 2019, 11, 8402-8407.	5.6	22
15	Y-doping TiO ₂ nanorod arrays for efficient perovskite solar cells. <i>Superlattices and Microstructures</i> , 2018, 117, 283-287.	3.1	18
16	Yttrium-doped TiO ₂ compact layers for efficient perovskite solar cells. <i>Journal of Solid State Chemistry</i> , 2019, 275, 206-209.	2.9	18
17	The pyrolysis preparation of the compact and full-coverage AgSbS ₂ thin films and the photovoltaic performance of the corresponding solar cells. <i>Journal of Materials Science and Technology</i> , 2022, 98, 268-271.	10.7	18
18	Tunable Br-doping CH ₃ NH ₃ PbI _{3-x} Br _x thin films for efficient planar perovskite solar cells. <i>Superlattices and Microstructures</i> , 2017, 104, 445-450.	3.1	17

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19	200-nm long TiO ₂ nanorod arrays for efficient solid-state PbS quantum dot-sensitized solar cells. <i>Journal of Energy Chemistry</i> , 2018, 27, 1214-1218.	12.9	17
20	A 200-nm length TiO ₂ nanorod array with a diameter of 13 nm and areal density of 1100 Å ² for efficient perovskite solar cells. <i>Ceramics International</i> , 2017, 43, 12534-12539.	4.8	15
21	Hydrolysis preparation of the compact TiO ₂ layer using metastable TiCl ₄ isopropanol/water solution for inorganic-organic hybrid heterojunction perovskite solar cells. <i>Journal of Semiconductors</i> , 2015, 36, 074003.	3.7	14
22	Short-length and high-density TiO ₂ nanorod arrays for the efficient charge separation interface in perovskite solar cells. <i>Journal of Solid State Chemistry</i> , 2017, 249, 169-173.	2.9	14
23	The low-temperature preparation for crystalline Sb ₂ S ₃ thin films and photovoltaic performance of the corresponding solar cells. <i>Solar Energy</i> , 2021, 217, 25-28.	6.1	14
24	Mass Transfer Performance for Low SO ₂ Absorption into Aqueous N,N-Bis(2-hydroxypropyl)piperazine Solution in a $\bar{\Gamma}$ -Ring Packed Column. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 4462-4468.	3.7	13
25	Fabrication of Sb ₂ S ₃ sensitized TiO ₂ nanorod array solar cells using spin-coating assisted successive ionic layer absorption and reaction. <i>Materials Today Communications</i> , 2019, 19, 393-395.	1.9	13
26	Ultrathin SnO ₂ Buffer Layer Aids in Interface and Band Engineering for Sb ₂ S ₃ (S,Se) Solar Cells with over 8% Efficiency. <i>ACS Applied Energy Materials</i> , 2022, 5, 3022-3033.	5.1	13
27	Pyrolysis preparation of WO ₃ thin films using ammonium metatungstate DMF/water solution for efficient compact layers in planar perovskite solar cells. <i>Journal of Semiconductors</i> , 2016, 37, 033002.	3.7	12
28	130°C CH ₃ NH ₃ I treatment temperature in vapor-assisted solution process for large grain and full-coverage perovskite thin films. <i>Optical Materials</i> , 2016, 60, 230-234.	3.6	12
29	Influence of dimethoxytriphenylamine groups on carbazole-based hole transporting materials for perovskite solar cells. <i>Solar Energy</i> , 2019, 190, 361-366.	6.1	12
30	Influence of Surface Modifier Molecular Structures on the Photovoltaic Performance of Sb ₂ S ₃ Sensitized TiO ₂ Nanorod Array Solar Cells. <i>Energy Technology</i> , 2020, 8, 1901368.	3.8	12
31	Combination of full-coverage Sb ₂ S ₃ thin films and spiro-OMeTAD:P3HT hybrid hole transporting materials for efficient solar cells. <i>New Journal of Chemistry</i> , 2021, 45, 10357-10361.	2.8	12
32	Simply designed nonspiro fluorene-based hole-transporting materials for high performance perovskite solar cells. <i>Synthetic Metals</i> , 2019, 250, 42-48.	3.9	11
33	Preparation of 596-nm-thick and full-coverage CH ₃ NH ₃ PbI ₃ Br _x thin films using 1.9-Å PbI ₂ -NMP complex solution in DMF. <i>Superlattices and Microstructures</i> , 2016, 100, 179-184.	3.1	9
34	The non-aqueous chemical bath deposition of Sb ₂ S ₃ thin films using SbCl ₃ -thioacetamide complex solution in DMF and the photovoltaic performance of the corresponding solar cells. <i>Materials Letters</i> , 2019, 256, 126636.	2.6	9
35	Introduction of polysulfide anions to increase the loading quantity of PbS quantum-dots for efficient solid-state quantum-dot sensitized TiO ₂ nanorod array solar cells. <i>Journal of Nanoparticle Research</i> , 2019, 21, 1.	1.9	8
36	High concentration PbI ₂ ·DMSO complex precursor solution of 1.7 Å in DMF for high-thickness and full-coverage CH ₃ NH ₃ PbI ₃ Br _x thin films. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 5603-5608.	2.2	7

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37	Fluorene-terminated hole transporting materials with a spiro[fluorene-9,9'-xanthene] core for perovskite solar cells. <i>New Journal of Chemistry</i> , 2021, 45, 5497-5502.	2.8	7
38	Preparation of ZnO nanorod arrays by hydrothermal procedure and its application in perovskite solar cells. <i>Materials Research Innovations</i> , 2016, 20, 338-342.	2.3	6
39	The pyrolysis preparation of porous Sb ₂ S _x Se _{3-x} thin films and photovoltaic performance of the corresponding solar cells. <i>Journal of Nanoparticle Research</i> , 2020, 22, 1.	1.9	6
40	Molecular tailor-making of zinc phthalocyanines as dopant-free hole-transporting materials for efficient and stable perovskite solar cells. <i>Journal of Power Sources</i> , 2021, 505, 230095.	7.8	6
41	Preparation of SnS thin films with gear-like sheet appearance by close-spaced vacuum thermal evaporation. <i>International Journal of Modern Physics B</i> , 2017, 31, 1744054.	2.0	4
42	PbI ₂ precursor solutions for all solid-state PbS quantum-dot sensitized TiO ₂ nanorod array solar cells using successive ionic layer adsorption and reaction method. <i>Current Applied Physics</i> , 2018, 18, 648-651.	2.4	4
43	The low temperature pyrolysis preparation of In ₂ S ₃ thin film and its application in Sb ₂ S ₃ thin film solar cells. <i>Materials Science in Semiconductor Processing</i> , 2022, 137, 106186.	4.0	4
44	High-crystallinity and large-grain CH ₃ NH ₃ PbI ₃ thin films for efficient TiO ₂ nanorod array perovskite solar cells. <i>Micro and Nano Letters</i> , 2018, 13, 131-134.	1.3	3
45	A facile two-step preparation of compact and crystalline Sb ₂ S ₃ thin film for efficient solar cells. <i>Current Applied Physics</i> , 2021, 29, 5-8.	2.4	3
46	Br-Doping CH ₃ NH ₃ PbI ₃ Br _x Thin Films for Efficient TiO ₂ Nanorod Array Perovskite Solar Cells. <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 5095-5100.	0.9	2
47	The low-temperature preparation for low-selenium Sb ₂ S _x Se _y thin film solar cells with efficiency of > 5%. <i>Journal of Nanoparticle Research</i> , 2021, 23, 1.	1.9	2
48	Ultra-thin CdS buffer layer for efficient Sb ₂ S ₃ -sensitized TiO ₂ nanorod array solar cells using Sb-thiourea complex solution. <i>Journal of Nanoparticle Research</i> , 2021, 23, 1.	1.9	2
49	In-situ Growth Mirror-Like Cobalt Sulfide Nanosheets on ITO for High Efficiency Counter Electrode of Dye-Sensitized Solar Cells**. <i>ChemistrySelect</i> , 2021, 6, 7537-7541.	1.5	2
50	Pb/S _{1,2} -ethanedithiol composite thin films for efficient solid-state quantum-dot sensitized TiO ₂ nanorod array solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 11783-11789.	2.2	1
51	The Preparation of AgBiS ₂ Sensitized TiO ₂ Nanorod Array Solar Cells and Photovoltaic Performance of the Corresponding Solar Cells. <i>Chemistry Letters</i> , 2022, 51, 577-580.	1.3	1
52	Influence of N-Butyldithiocarbamic Acid Content on the Properties of Sb ₂ S ₃ Sensitized TiO ₂ Nanorod Arrays and Photovoltaic Performance of the Corresponding Solar Cells. <i>ChemistrySelect</i> , 2021, 6, 6507-6511.	1.5	0