Wenzhong Shen

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/9349349/publications.pdf

Version: 2024-02-01

74	1,239	394390	434170
papers	citations	19 h-index	31 g-index

76	76	76	1899
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Efficient Inverted Planar Perovskite Solar Cells Using Ultraviolet/Ozoneâ€Treated NiO_x as the Hole Transport Layer. Solar Rrl, 2019, 3, 1900045.	5.8	81
2	Fully Solutionâ€Processed Semiâ€Transparent Perovskite Solar Cells With Inkâ€Jet Printed Silver Nanowires Top Electrode. Solar Rrl, 2018, 2, 1700184.	5.8	66
3	Perovskite/c-Si tandem solar cell with inverted nanopyramids: realizing high efficiency by controllable light trapping. Scientific Reports, 2015, 5, 16504.	3.3	61
4	Electrochemically induced Ti3+ self-doping of TiO2 nanotube arrays for improved photoelectrochemical water splitting. Journal of Materials Science, 2017, 52, 6976-6986.	3.7	58
5	Highly efficient and stable perovskite solar cellsviabilateral passivation layers. Journal of Materials Chemistry A, 2019, 7, 21730-21739.	10.3	56
6	Allâ€Solutionâ€Processed Random Si Nanopyramids for Excellent Light Trapping in Ultrathin Solar Cells. Advanced Functional Materials, 2016, 26, 4768-4777.	14.9	45
7	Simulation of High-Efficiency Crystalline Silicon Solar Cells With Homoâ€“Hetero Junctions. IEEE Transactions on Electron Devices, 2013, 60, 2104-2110.	3.0	44
8	High-Performance Inverted Perovskite Solar Cells with Mesoporous NiO_x Hole Transport Layer by Electrochemical Deposition. ACS Omega, 2018, 3, 18434-18443.	3.5	38
9	A Facile Self-assembly Synthesis of Hexagonal ZnO Nanosheet Films and Their Photoelectrochemical Properties. Nano-Micro Letters, 2016, 8, 137-142.	27.0	34
10	Deep learningâ€based automatic detection of multitype defects in photovoltaic modules and application in real production line. Progress in Photovoltaics: Research and Applications, 2021, 29, 471-484.	8.1	32
11	An effective way to simultaneous realization of excellent optical and electrical performance in largeâ€scale Si nano/microstructures. Progress in Photovoltaics: Research and Applications, 2015, 23, 964-972.	8.1	29
12	Fast and Controllable Electricâ€Fieldâ€Assisted Reactive Deposited Stable and Annealingâ€Free Perovskite toward Applicable Highâ€Performance Solar Cells. Advanced Functional Materials, 2017, 27, 1606156.	14.9	28
13	Broadband THz to NIR up-converter for photon-type THz imaging. Nature Communications, 2019, 10, 3513.	12.8	28
14	Synchronous exfoliation and assembly of graphene on 3D Ni(OH)₂ for supercapacitors. Chemical Communications, 2016, 52, 13373-13376.	4.1	25
15	20.0% Efficiency Si Nano/Microstructures Based Solar Cells with Excellent Broadband Spectral Response. Advanced Functional Materials, 2016, 26, 1892-1898.	14.9	24
16	Electrochemical Deposition of CsPbBr₃ Perovskite for Photovoltaic Devices with Robust Ambient Stability. ACS Applied Materials & Interfaces, 2020, 12, 50455-50463.	8.0	24
17	Boosting supercapacitive performance of ultrathin mesoporous NiCo₂O₄ nanosheet arrays by surface sulfation. Journal of Materials Chemistry A, 2018, 6, 8742-8749.	10.3	23
18	Flexible all-solid-state supercapacitors based on PPy/rGO nanocomposite on cotton fabric. Nanotechnology, 2021, 32, 305401.	2.6	22

#	Article	IF	Citations
19	Thin Al₂O₃ passivated boron emitter of nâ€type bifacial câ€Si solar cells with industrial process. Progress in Photovoltaics: Research and Applications, 2017, 25, 280-290.	8.1	21
20	One-Step In Situ Self-Assembly of Cypress Leaf-Like Cu(OH)2 Nanostructure/Graphene Nanosheets Composite with Excellent Cycling Stability for Supercapacitors. Nanoscale Research Letters, 2019, 14, 167.	5.7	20
21	Suppression of surface and Auger recombination by formation and control of radial junction in silicon microwire solar cells. Nano Energy, 2019, 58, 817-824.	16.0	20
22	Superior broadband antireflection from buried Mie resonator arrays for high-efficiency photovoltaics. Scientific Reports, 2015, 5, 8915.	3.3	19
23	Engineering MoSx/Ti/InP Hybrid Photocathode for Improved Solar Hydrogen Production. Scientific Reports, 2016, 6, 29738.	3.3	19
24	Perovskite/câ€Si tandem solar cells with realistic inverted architecture: Achieving high efficiency by optical optimization. Progress in Photovoltaics: Research and Applications, 2018, 26, 924-933.	8.1	19
25	Highlights of mainstream solar cell efficiencies in 2021. Frontiers in Energy, 2022, 16, 1-8.	2.3	19
26	Unique Three-Dimensional InP Nanopore Arrays for Improved Photoelectrochemical Hydrogen Production. ACS Applied Materials & Interfaces, 2016, 8, 22493-22500.	8.0	18
27	In situ asymmetric island sidewall growth of high-quality semipolar (112Ì„2) GaN on m-plane sapphire. CrystEngComm, 2016, 18, 5440-5447.	2.6	18
28	Design principles for single standing nanowire solar cells: going beyond the planar efficiency limits. Scientific Reports, 2014, 4, 4915.	3.3	17
29	Interfacial and Permeating Modification Effect of n-type Non-fullerene Acceptors toward High-Performance Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 40778-40787.	8.0	17
30	Shape-Controlled Silicon Microwire Arrays from Auâ€“Ag-Catalyzed Metal-Assisted Chemical Etching for Radial Junction Solar Cells. ACS Applied Energy Materials, 2019, 2, 5871-5876.	5.1	16
31	Temperature Gradient-Induced Instability of Perovskite via Ion Transport. ACS Applied Materials & Interfaces, 2018, 10, 835-844.	8.0	15
32	Solutionâ€Processed Electronâ€Selective Contacts Enabling 21.8% Efficiency Crystalline Silicon Solar Cells. Solar Rrl, 2020, 4, 2000569.	5.8	14
33	Chemical assisted formation of secondary structures towards high efficiency solar cells based on ordered TiO2 nanotube arrays. Journal of Materials Chemistry, 2012, 22, 7863.	6.7	13
34	Porous 3D graphene aerogel co-doped with nitrogen and sulfur for high-performance supercapacitors. Nanotechnology, 2021, 32, 195405.	2.6	12
35	Tuning oxygen impurities and microstructure of nanocrystalline silicon photovoltaic materials through hydrogen dilution. Nanoscale Research Letters, 2014, 9, 303.	5.7	11
36	Study and development of rearâ€emitter Si heterojunction solar cells and application of direct copper metallization. Progress in Photovoltaics: Research and Applications, 2018, 26, 385-396.	8.1	11

#	Article	IF	Citations
37	High-Efficiency Silicon Inverted Pyramid-Based Passivated Emitter and Rear Cells. Nanoscale Research Letters, 2020, 15, 174.	5.7	11
38	A review on monolithic perovskite/c-Si tandem solar cells: progress, challenges, and opportunities. Journal of Materials Chemistry A, 2022, 10, 10811-10828.	10.3	11
39	Broadband and photovoltaic THz/IR response in the GaAs-based ratchet photodetector. Science Advances, 2022, 8, .	10.3	11
40	Current promoted micro-annealing in anodic TiO₂tube arrays and its application in sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 783-791.	10.3	10
41	Fast anodization fabrication of AAO and barrier perforation process on ITO glass. Nanoscale Research Letters, 2014, 9, 159.	5.7	10
42	Fast Growth of Highly Ordered TiO2 Nanotube Arrays on Si Substrate under High-Field Anodization. Nano-Micro Letters, 2017, 9, 13.	27.0	10
43	Silicon homo-heterojunction solar cells: A promising candidate to realize high performance more stably. AIP Advances, 2017, 7, .	1.3	10
44	SiO2 passivation layer grown by liquid phase deposition for silicon solar cell application. Frontiers in Energy, 2017, 11, 52-59.	2.3	10
45	A Convenient and Effective Method to Deposit Low-Defect-Density nc-Si:H Thin Film by PECVD. Nanoscale Research Letters, 2018, 13, 234.	5.7	10
46	Ambient Manipulation of Perovskites by Alternating Electric Field toward Tunable Photovoltaic Performance. Advanced Functional Materials, 2020, 30, 2004652.	14.9	9
47	Controllable Electrochemical Deposition and Theoretical Understanding of Conformal Perovskite on Textured Silicon towards Efficient Perovskite/Silicon Tandem Solar Cells. Journal of Physical Chemistry C, 2021, 125, 2875-2883.	3.1	9
48	Size control of CuInSe2 nanotube arrays via nanochannel-confined galvanic displacement. Journal of Materials Chemistry, 2011, 21, 17091.	6.7	8
49	Perovskite/c-Si Monolithic Tandem Solar Cells under Real Solar Spectra: Improving Energy Yield by Oblique Incident Optimization. Journal of Physical Chemistry C, 2019, 123, 28659-28667.	3.1	8
50	Efficient Inverted Planar Perovskite Solar Cells Using Ultraviolet/Ozoneâ€Treated NiO_x as the Hole Transport Layer (Solar RRL 6â•2019). Solar Rrl, 2019, 3, 1970063.	5.8	8
51	Quasiâ€Omnidirectional Ultrathin Silicon Solar Cells Realized by Industrially Compatible Processes. Advanced Electronic Materials, 2019, 5, 1800858.	5.1	8
52	Hierarchical Hollow Bimetal Oxide Microspheres Synthesized through a Recrystallization Mechanism for Highâ€Performance Lithiumâ€Ion Batteries. ChemElectroChem, 2020, 7, 3468-3477.	3.4	7
53	Fully Solutionâ€Processed Semiâ€Transparent Perovskite Solar Cells With Inkâ€Jet Printed Silver Nanowires Top Electrode (Solar RRL 2â•2018). Solar Rrl, 2018, 2, 1770152.	5.8	6
54	Edge effect in silicon solar cells with dopant-free interdigitated back-contacts. Nano Energy, 2020, 74, 104893.	16.0	6

#	Article	IF	Citations
55	Evolution process of orderly nanoporous alumina by constant high field anodization in oxalic acid electrolyte. Applied Physics A: Materials Science and Processing, 2011, 104, 89-94.	2.3	5
56	Improved interface quality and luminescence capability of InGaN/GaN quantum wells with Mg pretreatment. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	5
57	Development of back-junction back-contact silicon solar cells based on industrial processes. Progress in Photovoltaics: Research and Applications, 2017, 25, 441-451.	8.1	5
58	Optical field simulation of edge coupled terahertz quantum well photodetectors. AIP Advances, 2018, 8, 035214.	1.3	5
59	A facile and controllable electrochemically fabricated nonstoichiometric MoO_x film for novel opto-electronic devices. Journal of Micromechanics and Microengineering, 2019, 29, 065012.	2.6	5
60	Hierarchical hollow structured Ni_xCo_{3â^'x}O₄ particles for high-performance hybrid supercapacitors with ultralong cyclic stability. Sustainable Energy and Fuels, 2021, 5, 2018-2027.	4.9	5
61	SnO _x /graphene anode material with multiple oxidation states for high-performance Li-ion batteries. Nanotechnology, 2021, 32, 195407.	2.6	5
62	Lowâ€Cost Strategy for Highâ€Efficiency Bifacial Perovskite/câ€Si Tandem Solar Cells. Solar Rrl, 2022, 6, 2100781.	5.8	5
63	Monolithic perovskite/c-Si tandem solar cell: Progress on numerical simulation. , 2022, 1, .		5
64	Boosting ZnO nanowire dye-sensitized solar cell efficiency by coating a porous ZnO layer on the nanowires. Journal of Materials Science: Materials in Electronics, 2014, 25, 4547-4552.	2.2	2
65	Highâ€Efficiency Interdigitated Back Contact Silicon Solar Cells with Front Floating Emitter. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900445.	1.8	2
66	Enhancement in external quantum efficiency of light-emitting diode based on colloidal silicon nanocrystals. Nanotechnology, 2021, 32, 505611.	2.6	2
67	Realization of a general method for extracting specific contact resistance of siliconâ€based dopantâ€free heterojunctions. Solar Rrl, 0, , 2100394.	5.8	2
68	Solar Cells: Fast and Controllable Electricâ€Fieldâ€Assisted Reactive Deposited Stable and Annealingâ€Free Perovskite toward Applicable Highâ€Performance Solar Cells (Adv. Funct. Mater. 11/2017). Advanced Functional Materials, 2017, 27, .	14.9	1
69	Perovskite Fabrication: Ambient Manipulation of Perovskites by Alternating Electric Field toward Tunable Photovoltaic Performance (Adv. Funct. Mater. 42/2020). Advanced Functional Materials, 2020, 30, 2070282.	14.9	1
70	Anion Modification and Theoretical Understanding for Improving Annealing-Free Electrochemistry Deposition of Perovskites under an Ambient Atmosphere. Journal of Physical Chemistry C, 2022, 126, 4785-4791.	3.1	1
71	Electronic states in hydrogenated nanocrystalline silicon thin films detected by photocurrent technique. Applied Physics Letters, 2013, 102, 121107.	3.3	0
72	Ultrathin Solar Cells: Quasi-Omnidirectional Ultrathin Silicon Solar Cells Realized by Industrially Compatible Processes (Adv. Electron. Mater. 3/2019). Advanced Electronic Materials, 2019, 5, 1970014.	5.1	0

#	Article	IF	Citations
73	Ultraâ€thin bifacial passivated emitter and rear cell with inverted pyramid textures. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, 2100481.	1.8	0
74	Realization of high voltage output on monolithic silicon solar cells in series for selfâ€powered systems. Solar Rrl, 0, , .	5.8	0