Shao-Long Wu

List of Publications by Year
in descending order

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75 papers	1,287 citations	331670 21 h-index	434195 31 g-index
76 all docs	76 docs citations	76 times ranked	1506 citing authors

#	Article	IF	Citations
1	Planar Dual-Layer System for Ultra-Broadband Absorption and Hot-Carrier Photodetection in Longwave Near-Infrared Band. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-9.	2.9	0
2	Constructing a full-space internal electric field in a hematite photoanode to facilitate photogenerated-carrier separation and transfer. Journal of Materials Chemistry A, 2022, 10, 8546-8555.	10.3	17
3	Back Interface Passivation for Efficient Low-Bandgap Perovskite Solar Cells and Photodetectors. Nanomaterials, 2022, 12, 2065.	4.1	3
4	Photo-assisted decoration of Ag-Pt nanoparticles on Si photocathodes for reducing overpotential toward enhanced photoelectrochemical water splitting. Science China Materials, 2022, 65, 3033-3042.	6.3	4
5	Reconstructing Oxygen Vacancies in the Bulk and Nickel Oxyhydroxide Overlayer to Promote the Hematite Photoanode for Photoelectrochemical Water Oxidation. ACS Applied Energy Materials, 2022, 5, 8999-9008.	5.1	13
6	Understanding the varying mechanisms between the conformal interlayer and overlayer in the silicon/hematite dual-absorber photoanode for solar water splitting. Dalton Transactions, 2021, 50, 2936-2944.	3.3	10
7	Design and fabrication of silicon immersion grating. , 2021, , .		0
8	Nanobowls-assisted broadband absorber for unbiased Si-based infrared photodetection. Optics Express, 2021, 29, 15505.	3.4	13
9	Direct growth of hematite film on p+n-silicon micro-pyramid arrays for low-bias water splitting. Solar Energy Materials and Solar Cells, 2021, 224, 110987.	6.2	4
10	Selective optical sensing of glucose based on ordered nanowires/disordered porous Si hybrid structure. , 2021, , .		0
11	Size-dependent performances in homogeneous, controllable, and large-area silicon wire array photocathode. Journal of Power Sources, 2020, 473, 228580.	7.8	13
12	Designing a Transparent CdIn₂S₄/In₂S₃ Bulkâ€Heterojunction Photoanode Integrated with a Perovskite Solar Cell for Unbiased Water Splitting. Advanced Materials, 2020, 32, e2002893.	21.0	67
13	A mechanically bendable and conformally attachable polymer membrane microlaser array enabled by digital interference lithography. Nanoscale, 2020, 12, 6736-6743.	5.6	1
14	Underlayer engineering into the Sn-doped hematite photoanode for facilitating carrier extraction. Physical Chemistry Chemical Physics, 2020, 22, 7306-7313.	2.8	12
15	Tin and Oxygen-Vacancy Co-doping into Hematite Photoanode for Improved Photoelectrochemical Performances. Nanoscale Research Letters, 2020, 15, 54.	5.7	22
16	Tunable infrared hot-electron photodetection by exciting gap-mode plasmons with wafer-scale gold nanohole arrays. Optics Express, 2020, 28, 6511.	3.4	18
17	Unity integration of Au grating and microfluid for refractive-index sensing. , 2020, , .		0
18	Self-improvement of solar water oxidation for the continuously-irradiated hematite photoanode. Dalton Transactions, 2019, 48, 15151-15159.	3.3	15

#	Article	IF	Citations
19	Planar dual-cavity hot-electron photodetectors. Nanoscale, 2019, 11, 1396-1402.	5.6	24
20	Regulating the Silicon/Hematite Microwire Photoanode by the Conformal Al₂O₃ Intermediate Layer for Water Splitting. ACS Applied Materials & Interfaces, 2019, 11, 5978-5988.	8.0	33
21	Gap-mode excitation, manipulation, and refractive-index sensing application by gold nanocube arrays. Nanoscale, 2019, 11, 5467-5473.	5.6	16
22	Planar, narrowband, and tunable photodetection in the near-infrared with Au/TiO₂ nanodiodes based on Tamm plasmons. Nanoscale, 2019, 11, 23182-23187.	5.6	12
23	All-organic room temperature thermally switchable dielectric system. Journal of Materials Chemistry C, 2019, 7, 15315-15321.	5.5	6
24	Narrowband and Full-Angle Refractive Index Sensor Based on a Planar Multilayer Structure. IEEE Sensors Journal, 2019, 19, 2924-2930.	4.7	23
25	Thermodynamic loss mechanisms and strategies for efficient hot-electron photoconversion. Nano Energy, 2019, 55, 164-172.	16.0	50
26	Simultaneously performing optical and electrical responses from a plasmonic sensor based on gold/silicon Schottky junction. Optics Express, 2019, 27, 38382.	3.4	21
27	Planar Narrowband Hot-Electron Photodetector Based on Tamm Plasmons. , 2019, , .		1
28	Facile Preparation of nâ€Type LaFeO₃ Perovskite Film for Efficient Photoelectrochemical Water Splitting. ChemistrySelect, 2018, 3, 968-972.	1.5	29
29	Photonic surface waves enabled perfect infrared absorption by monolayer graphene. Nano Energy, 2018, 48, 161-169.	16.0	33
30	Optoelectronic modeling of the Si/Î±-Fe2O3 heterojunction photoanode. Nano Energy, 2018, 43, 177-183.	16.0	34
31	Physical manipulation of ultrathin-film optical interference for super absorption and two-dimensional heterojunction photoconversion. Chinese Physics B, 2018, 27, 124202.	1.4	2
32	Tunable light absorbance by exciting the plasmonic gap mode for refractive index sensing. Optics Letters, 2018, 43, 1427.	3.3	22
33	Perovskite Solar Cells: Optoelectronic Simulation and Optimization. Solar Rrl, 2018, 2, 1800126.	5.8	39
34	Modulating oxygen vacancies in Sn-doped hematite film grown on silicon microwires for photoelectrochemical water oxidation. Journal of Materials Chemistry A, 2018, 6, 15593-15602.	10.3	53
35	Si microwire array photoelectrochemical cells: Stabilized and improved performances with surface modification of Pt nanoparticles and TiO2 ultrathin film. Journal of Power Sources, 2017, 342, 460-466.	7.8	18
36	Tunable multi-wavelength polymer laser based on a triangular-lattice photonic crystal structure. Journal Physics D: Applied Physics, 2016, 49, 335103.	2.8	8

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37	Optoelectronic and thermodynamic simulation of solar cells. , 2016, , .		0
38	Facile fabrication of wafer-scale, micro-spacing and high-aspect-ratio silicon microwire arrays. RSC Advances, 2016, 6, 87486-87492.	3.6	12
39	Stabilized and Improved Photoelectrochemical Responses of Silicon Nanowires Modified with Ag@SiO₂ Nanoparticles and Crystallized TiO₂ Film. ACS Applied Materials & Interfaces, 2016, 8, 30072-30078.	8.0	14
40	Strong and highly asymmetrical optical absorption in conformal metal-semiconductor-metal grating system for plasmonic hot-electron photodetection application. Scientific Reports, 2015, 5, 14304.	3.3	36
41	Study on limiting efficiencies of a-Si:H/Î¼c-Si:H-based single-nanowire solar cells under single and tandem junction configurations. Applied Physics Letters, 2015, 107, 181106.	3.3	0
42	Simulation Analysis on Photoelectric Conversion Characteristics of Silicon Nanowire Array Photoelectrodes. Nanoscale Research Letters, 2015, 10, 985.	5.7	4
43	High-efficiency photon capturing in ultrathin silicon solar cells with front nanobowl texture and truncated-nanopyramid reflector. Optics Letters, 2015, 40, 1077.	3.3	31
44	Nanowire and nanohole silicon solar cells: a thorough optoelectronic evaluation. Progress in Photovoltaics: Research and Applications, 2015, 23, 1734-1741.	8.1	35
45	High thermoelectric figure-of-merits from large-area porous silicon nanowire arrays. Nano Energy, 2015, 13, 433-441.	16.0	95
46	Limiting efficiency calculation of silicon single-nanowire solar cells with considering Auger recombination. Applied Physics Letters, 2015, 106, .	3.3	10
47	Coaxial Ag/ZnO/Ag nanowire for highly sensitive hot-electron photodetection. Applied Physics Letters, 2015, 106, 081109.	3.3	12
48	Omnidirectional absorption enhancement of symmetry-broken crescent-deformed single-nanowire photovoltaic cells. Nano Energy, 2015, 13, 9-17.	16.0	26
49	Infrared hot-carrier photodetection based on planar perfect absorber. Optics Letters, 2015, 40, 4261.	3.3	28
50	Proximity effect assisted absorption enhancement in thin film with locally clustered nanoholes. Optics Letters, 2015, 40, 792.	3.3	4
51	Surface-plasmon enhanced photodetection at communication band based on hot electrons. Journal of Applied Physics, 2015, 118, .	2.5	22
52	Improved optical absorption of silicon single-nanowire solar cells by off-axial core/shell design. Nano Energy, 2015, 17, 233-240.	16.0	23
53	Enhanced Light Trapping in a-Si:H/Î¼c-Si:H Tandem Solar Cells via Nanopatterning Top Absorber and Embedding Wavelength-Selective Intermediate Reflectors. IEEE Journal of Photovoltaics, 2015, 5, 46-54.	2.5	2
54	Influences of Metal Nanoparticles on the Photoelectrochemical Activity of Silicon Nanowires for Photon Harvesting. , 2015, , .		0

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55	Enhanced photoabsorption in front-tapered single-nanowire solar cells. Optics Letters, 2014, 39, 5756.	3.3	14
56	Absorption enhancement of single silicon nanowire by tailoring rear metallic film for photovoltaic applications. Optics Letters, 2014, 39, 817.	3.3	11
57	Design of Î¼c-Si:H/a-Si:H coaxial tandem single-nanowire solar cells considering photocurrent matching. Optics Express, 2014, 22, A1761.	3.4	12
58	Plasmon gap mode-assisted third-harmonic generation from metal film-coupled nanowires. Applied Physics Letters, 2014, 104, .	3.3	21
59	Design of dual-diameter nanoholes for efficient solar-light harvesting. Nanoscale Research Letters, 2014, 9, 481.	5.7	19
60	Enhanced Photoelectrochemical Response of Silicon Nanowire Arrays through Coating the Carbon Shell. Journal of the Electrochemical Society, 2014, 161, H240-H243.	2.9	7
61	Performance-improved thin-film a-Si:H/Î¼c-Si:H tandem solar cells by two-dimensionally nanopatterning photoactive layer. Nanoscale Research Letters, 2014, 9, 73.	5.7	5
62	Enhanced Photoresponsivity of a Germanium Single-Nanowire Photodetector Confined within a Superwavelength Metallic Slit. ACS Photonics, 2014, 1, 483-488.	6.6	14
63	Numerical Simulations of Optical Absorption and Spectral Selective of Ni Nanowire/AAO Composites. Key Engineering Materials, 2014, 602-603, 975-979.	0.4	0
64	Irradiation Damage Determined Field Emission of Ion Irradiated Carbon Nanotubes. ACS Applied Materials & Interfaces, 2014, 6, 5137-5143.	8.0	18
65	Diamond-like carbon decoration enhances the field electron emission of silicon nanowires. Surface and Coatings Technology, 2013, 228, S349-S353.	4.8	12
66	Morphology-dependent optical properties of one-dimensional nanostructure-arrayed silicon. Journal of the Korean Physical Society, 2013, 63, 1189-1193.	0.7	5
67	Fabricating vertically aligned ultrathin graphene nanosheets without any catalyst using rf sputtering deposition. Nuclear Instruments & Methods in Physics Research B, 2013, 307, 177-180.	1.4	7
68	Surface Morphology-Dependent Photoelectrochemical Properties of One-Dimensional Si Nanostructure Arrays Prepared by Chemical Etching. ACS Applied Materials & Interfaces, 2013, 5, 4769-4776.	8.0	34
69	Significant reduction of thermal conductivity in silicon nanowire arrays. Nanotechnology, 2013, 24, 505718.	2.6	25
70	Tunable synthesis of carbon nanosheet/silicon nanowire hybrids for field emission applications. Diamond and Related Materials, 2012, 26, 83-88.	3.9	11
71	Facile morphological control of single-crystalline silicon nanowires. Applied Surface Science, 2012, 258, 9792-9799.	6.1	39
72	Structures and Field Emission Properties of Silicon Nanowire Arrays Implanted with Energetic Carbon Ion Beam. Journal of Nanoscience and Nanotechnology, 2012, 12, 6543-6547.	0.9	1

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73	H plasma processing triggered phase transformation from DLC to diamond nano-particles. Diamond and Related Materials, 2012, 25, 45-49.	3.9	1
74	Photoelectrochemical responses of silicon nanowire arrays for light detection. Chemical Physics Letters, 2012, 538, 102-107.	2.6	13
75	Field emission enhancement of Au-Si nano-particle-decorated silicon nanowires. Nanoscale Research Letters, 2011, 6, 176.	5.7	28