Chun-Yan Wu

List of Publications by Year
in descending order

77 papers	3,688 citations	117625 34 h-index	128289 60 g-index
77 all docs	77 docs citations	77 times ranked	4806 citing authors

#	Article	IF	Citations
1	Monolayer Graphene/Germanium Schottky Junction As High-Performance Self-Driven Infrared Light Photodetector. ACS Applied Materials & Interfaces, 2013, 5, 9362-9366.	8.0	347
2	Monolayer Graphene Film on ZnO Nanorod Array for Highâ€Performance Schottky Junction Ultraviolet Photodetectors. Small, 2013, 9, 2872-2879.	10.0	271
3	Coreâ€“Shell Heterojunction of Silicon Nanowire Arrays and Carbon Quantum Dots for Photovoltaic Devices and Self-Driven Photodetectors. ACS Nano, 2014, 8, 4015-4022.	14.6	258
4	Large scale synthesis of uniform CuS nanotubes in ethylene glycol by a sacrificial templating method under mild conditions. Journal of Materials Chemistry, 2006, 16, 3326.	6.7	178
5	Nearâ€Infrared Light Photovoltaic Detector Based on GaAs Nanocone Array/Monolayer Graphene Schottky Junction. Advanced Functional Materials, 2014, 24, 2794-2800.	14.9	167
6	Light trapping and surface plasmon enhanced high-performance NIR photodetector. Scientific Reports, 2014, 4, 3914.	3.3	132
7	Monolayer graphene film/silicon nanowire array Schottky junction solar cells. Applied Physics Letters, 2011, 99, .	3.3	120
8	Self-powered and fast-speed photodetectors based on CdS:Ga nanoribbon/Au Schottky diodes. Journal of Materials Chemistry, 2012, 22, 23272.	6.7	116
9	Transforming ground mica into high-performance biomimetic polymeric mica film. Nature Communications, 2018, 9, 2974.	12.8	107
10	In Situ Carbon-Doped Mo(Se_{0.85}S_{0.15})₂Hierarchical Nanotubes as Stable Anodes for High-Performance Sodium-Ion Batteries. Small, 2015, 11, 5667-5674.	10.0	101
11	Complex Concaved Cuboctahedrons of Copper Sulfide Crystals with Highly Geometrical Symmetry Created by a Solution Process. Chemistry of Materials, 2006, 18, 3599-3601.	6.7	98
12	Device structure-dependent field-effect and photoresponse performances of p-type ZnTe:Sb nanoribbons. Journal of Materials Chemistry, 2012, 22, 6206.	6.7	96
13	Surface induced negative photoconductivity in p-type ZnSeâ€‰:â€‰Bi nanowires and their nano-optoelectronic applications. Journal of Materials Chemistry, 2011, 21, 6736.	6.7	89
14	Aluminium-doped n-type ZnS nanowires as high-performance UV and humidity sensors. Journal of Materials Chemistry, 2012, 22, 6856.	6.7	79
15	Transparent and flexible selenium nanobelt-based visible light photodetector. CrystEngComm, 2012, 14, 1942.	2.6	68
16	Chlorine-doped n-type CdS nanowires with enhanced photoconductivity. Nanotechnology, 2010, 21, 505203.	2.6	66
17	Schottky solar cells based on graphene nanoribbon/multiple silicon nanowires junctions. Applied Physics Letters, 2012, 100, 193103.	3.3	65
18	High-gain visible-blind UV photodetectors based on chlorine-doped n-type ZnS nanoribbons with tunable optoelectronic properties. Journal of Materials Chemistry, 2011, 21, 12632.	6.7	64

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19	Catalystâ€Free Vaporâ€“Solid Deposition Growth of Î²â€Ga₂O₃ Nanowires for DUV Photodetector and Image Sensor Application. Advanced Optical Materials, 2019, 7, 1901257.	7.3	62
20	A high-performance near-infrared light photovoltaic detector based on a multilayered PtSe₂/Ge heterojunction. Journal of Materials Chemistry C, 2019, 7, 5019-5027.	5.5	58
21	Grapheneâ€Assisted Growth of Patterned Perovskite Films for Sensitive Light Detector and Optical Image Sensor Application. Small, 2019, 15, e1900730.	10.0	53
22	Efficient defect passivation of Sb₂Se₃ film by tellurium doping for high performance solar cells. Journal of Materials Chemistry A, 2020, 8, 6510-6516.	10.3	48
23	The Effect of Plasmonic Nanoparticles on the Optoelectronic Characteristics of CdTe Nanowires. Small, 2014, 10, 2645-2652.	10.0	43
24	Design and construction of ultra-thin MoSe2 nanosheet-based heterojunction for high-speed and low-noise photodetection. Nano Research, 2016, 9, 2641-2651.	10.4	43
25	Three-dimensional imaging of a complex concaved cuboctahedron copper sulfide crystal by x-ray nanotomography. Applied Physics Letters, 2008, 92, .	3.3	41
26	High-performance CdS:P nanoribbon field-effect transistors constructed with high-Îº dielectric and top-gate geometry. Applied Physics Letters, 2010, 96, .	3.3	41
27	Asymmetric Contactâ€Induced Selfâ€Driven Perovskiteâ€Microwireâ€Array Photodetectors. Advanced Electronic Materials, 2019, 5, 1900135.	5.1	40
28	Tectonic arrangement of Bi2S3 nanocrystals into 2D networks. Journal of Materials Chemistry, 2009, 19, 3378.	6.7	38
29	p-CdTe nanoribbon/n-silicon nanowires array heterojunctions: photovoltaic devices and zero-power photodetectors. CrystEngComm, 2012, 14, 7222.	2.6	38
30	Water Additive Enhanced Solution Processing of Alloy Sb₂(S_{1â^’x}Se_x)₃â€Based Solar Cells. Solar Rrl, 2020, 4, 1900582.	5.8	38
31	Ultrahigh Mobility of pâ€Type CdS Nanowires: Surface Charge Transfer Doping and Photovoltaic Devices. Advanced Energy Materials, 2013, 3, 579-583.	19.5	37
32	Self-Powered Filterless Narrow-Band pâ€“n Heterojunction Photodetector for Low Background Limited Near-Infrared Image Sensor Application. ACS Applied Materials & Interfaces, 2020, 12, 21845-21853.	8.0	37
33	Defect-induced broadband photodetection of layered Î³-In₂Se₃ nanofilm and its application in near infrared image sensors. Journal of Materials Chemistry C, 2019, 7, 11532-11539.	5.5	36
34	Nano-Schottky barrier diodes based on Sb-doped ZnS nanoribbons with controlled p-type conductivity. Applied Physics Letters, 2011, 98, .	3.3	35
35	Water Evaporation Induced Conversion of CuSe Nanoflakes to Cu_{2â^’x}Se Hierarchical Columnar Superstructures for High-Performance Solar Cell Applications. Particle and Particle Systems Characterization, 2015, 32, 840-847.	2.3	34
36	Coreâ€“shell silicon nanowire arrayâ€“Cu nanofilm Schottky junction for a sensitive self-powered near-infrared photodetector. Journal of Materials Chemistry C, 2016, 4, 10804-10811.	5.5	32

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37	Tuning the p-type conductivity of ZnSe nanowiresvia silver doping for rectifying and photovoltaic device applications. Journal of Materials Chemistry A, 2013, 1, 1148-1154.	10.3	29
38	Opening the Band Gap of Graphene via Fluorination for High-Performance Dual-Mode Photodetector Application. ACS Applied Materials & Interfaces, 2019, 11, 21702-21710.	8.0	28
39	High-speed ultraviolet-visible-near infrared photodiodes based on p-ZnS nanoribbonâ€“n-silicon heterojunction. CrystEngComm, 2013, 15, 1635.	2.6	27
40	Surface charge transfer induced p-CdS nanoribbon/n-Si heterojunctions as fast-speed self-driven photodetectors. Journal of Materials Chemistry C, 2015, 3, 6307-6313.	5.5	24
41	Fabrication of Addressable Perovskite Film Arrays for High-Performance Photodetection and Real-Time Image Sensing Application. Journal of Physical Chemistry Letters, 2021, 12, 2930-2936.	4.6	23
42	p-type ZnS:N nanowires: Low-temperature solvothermal doping and optoelectronic properties. Applied Physics Letters, 2013, 103, 213111.	3.3	21
43	Nanochannel-confined growth of crystallographically orientated perovskite nanowire arrays for polarization-sensitive photodetector application. Science China Materials, 2021, 64, 2497-2506.	6.3	21
44	p-type ZnTe:Ga nanowires: controlled doping and optoelectronic device application. RSC Advances, 2015, 5, 13324-13330.	3.6	20
45	Multilayered PtSe₂/pyramid-Si heterostructure array with light confinement effect for high-performance photodetection, image sensing and light trajectory tracking applications. Journal of Materials Chemistry C, 2021, 9, 2823-2832.	5.5	20
46	Multilayered PdTeâ„‚/GaN Heterostructures for Visible-Blind Deep-Ultraviolet Photodetection. IEEE Electron Device Letters, 2021, 42, 1192-1195.	3.9	18
47	Interfacial state induced ultrasensitive ultraviolet light photodetector with resolved flux down to 85 photons per second. Nano Research, 2015, 8, 1098-1107.	10.4	17
48	Flexible CuS nanotubesâ€“ITO film Schottky junction solar cells with enhanced light harvesting by using an Ag mirror. Nanotechnology, 2013, 24, 045402.	2.6	16
49	Probing the trap states in Nâ€“iâ€“P Sb2(S,Se)3 solar cells by deep-level transient spectroscopy. Journal of Chemical Physics, 2020, 153, 124703.	3.0	16
50	Pulsed laser deposition of antimony selenosulfide thin film for efficient solar cells. Applied Physics Letters, 2020, 116, .	3.3	16
51	Chlorineâ€Doped ZnSe Nanoribbons with Tunable nâ€Type Conductivity as Highâ€Gain and Flexible Blue/UV Photodetectors. ChemPlusChem, 2012, 77, 470-475.	2.8	15
52	Self-assembled KCu₇S₄ nanowire monolayers for self-powered near-infrared photodetectors. Nanoscale, 2018, 10, 18502-18509.	5.6	15
53	Electrically adjusted deep-ultraviolet/near-infrared single-band/dual-band imaging photodetectors based on Cs₃Cu₂I₅/PdTe₂/Ge multiheterostructures. Journal of Materials Chemistry C, 2021, 9, 14897-14907.	5.5	14
54	Tailoring the electrical properties of tellurium nanowires via surface charge transfer doping. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	13

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55	Nonâ€Ultrawide Bandgap Semiconductor GaSe Nanobelts for Sensitive Deep Ultraviolet Light Photodetector Application. Small, 2022, 18, e2200594.	10.0	13
56	A top-down strategy to synthesize wurtzite Cu₂ZnSnS₄ nanocrystals by green chemistry. Chemical Communications, 2016, 52, 9821-9824.	4.1	12
57	Facial synthesis of KCu₇S₄nanobelts for nonvolatile memory device applications. Journal of Materials Chemistry C, 2016, 4, 589-595.	5.5	12
58	Controlled synthesis of GaSe microbelts for high-gain photodetectors induced by the electron trapping effect. Journal of Materials Chemistry C, 2020, 8, 5375-5379.	5.5	12
59	High-performance light trajectory tracking and image sensing devices based on a Î³-In₂Se₃/GaAs heterostructure. Journal of Materials Chemistry C, 2020, 8, 13762-13769.	5.5	11
60	Controllable synthesis of p-type Cu2S nanowires for self-driven NIR photodetector application. Journal of Nanoparticle Research, 2017, 19, 1.	1.9	10
61	Gallium doped n-type Zn_xCd_{1-x}S nanoribbons: Synthesis and photoconductivity properties. Journal of Applied Physics, 2014, 115, 063108.	2.5	8
62	Coreâ€“shell CdS:Gaâ€“ZnTe:Sb pâ€“n nano-heterojunctions: fabrication and optoelectronic characteristics. Journal of Materials Chemistry C, 2015, 3, 2933-2939.	5.5	8
63	Cu-Cu low temperature bonding based on lead-free solder with graphene interlayer. Applied Physics Letters, 2019, 115, .	3.3	8
64	Thickness-Dependent Resistive Switching Behavior of KCu₇S₄/Cu_xO/Au Device. Journal of Nanoscience and Nanotechnology, 2019, 19, 2844-2850.	0.9	8
65	Surface charge transfer doping of germanium nanowires by MoO3 deposition. RSC Advances, 2012, 2, 3361.	3.6	7
66	Enhanced Light Trapping in Conformal CuO/Si Microholes Array Heterojunction for Self-Powered Broadband Photodetection. IEEE Electron Device Letters, 2021, 42, 883-886.	3.9	7
67	n-Type KCu₃S₂microbelts: optical, electrical, and optoelectronic properties. RSC Advances, 2014, 4, 59221-59225.	3.6	6
68	Grating Perovskite Enhanced Polarization-Sensitive GaAs-Based Photodetector. IEEE Transactions on Electron Devices, 2022, 69, 2469-2473.	3.0	5
69	A quasi-2D perovskite antireflection coating to boost the performance of multilayered PdTe₂/Ge heterostructure-based near-infrared photodetectors. Journal of Materials Chemistry C, 2022, 10, 6025-6035.	5.5	5
70	Wavelength-Tunable Multispectral Photodetector With Both Ultraviolet and Near-Infrared Narrowband Detection Capability. IEEE Transactions on Electron Devices, 2022, 69, 3258-3261.	3.0	5
71	Synthesis and optoelectronic properties of silver-doped n-type CdS nanoribbons. Frontiers of Optoelectronics in China, 2011, 4, 161-165.	0.2	4
72	Preparation and Photoelectric and Magnetic Properties of Cu₂MnSnS₄ Nanosheets. ChemPlusChem, 2015, 80, 1537-1540.	2.8	4

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73	Fabrication of a Î³-In₂Se₃/Si heterostructure phototransistor for heart rate detection. Journal of Materials Chemistry C, 0, , .	5.5	4
74	Interfacially Engineered Highâ€Speed Nonvolatile Memories Employing pâ€Type Nanoribbons. Advanced Materials Interfaces, 2014, 1, 1400130.	3.7	3
75	Highly reliable Cu Cu low temperature bonding using SAC305 solder with rGO interlayer. Microelectronics Reliability, 2022, 129, 114483.	1.7	3
76	Spectral Engineering of InSe Nanobelts for Full-Color Imaging by Tailoring the Thickness. Journal of Physical Chemistry Letters, 2022, 13, 2668-2673.	4.6	3
77	Ultraviolet Photodetectors Based on Nanometer-Thick Films of the Narrow Band Gap Semiconductor PbS. ACS Applied Nano Materials, 2022, 5, 8894-8901.	5.0	1