Zhiming M Wang

List of Publications by Year
in descending order

39 papers	2,208 citations	236925 25 h-index	302126 39 g-index
40 all docs	40 docs citations	40 times ranked	2157 citing authors

#	Article	IF	Citations
1	Broadband Metamaterial Absorbers. Advanced Optical Materials, 2019, 7, 1800995.	7.3	404
2	Photothermal Circular Dichroism Induced by Plasmon Resonances in Chiral Metamaterial Absorbers and Bolometers. Nano Letters, 2018, 18, 2001-2008.	9.1	123
3	The fast and the furious: Ultrafast hot electrons in plasmonic metastructures. Size and structure matter. Nano Today, 2019, 27, 120-145.	11.9	112
4	Emerging light-emitting diodes for next-generation data communications. Nature Electronics, 2021, 4, 559-572.	26.0	102
5	Electronic Structure of the Plasmons in Metal Nanocrystals: Fundamental Limitations for the Energy Efficiency of Hot Electron Generation. ACS Energy Letters, 2019, 4, 2552-2568.	17.4	98
6	Core/Shell Quantum Dots Solar Cells. Advanced Functional Materials, 2020, 30, 1908762.	14.9	98
7	Highly Stable Colloidal â€œGiantâ€•Quantum Dots Sensitized Solar Cells. Advanced Functional Materials, 2017, 27, 1701468.	14.9	92
8	Chiral Plasmonic Nanocrystals for Generation of Hot Electrons: Toward Polarization-Sensitive Photochemistry. Nano Letters, 2019, 19, 1395-1407.	9.1	83
9	Rational Synthesis of Branched CoMoO₄@CoNiO₂ Core/Shell Nanowire Arrays for All-Solid-State Supercapacitors with Improved Performance. ACS Applied Materials & Interfaces, 2015, 7, 24204-24211.	8.0	79
10	Generation of Hot Electrons with Chiral Metamaterial Perfect Absorbers: Giant Optical Chirality for Polarization-Sensitive Photochemistry. ACS Photonics, 2019, 6, 3241-3252.	6.6	64
11	Metamaterial perfect absorber with unabated size-independent absorption. Optics Express, 2018, 26, 20471.	3.4	63
12	Materials engineering for adsorption and catalysis in room-temperature Naâ€“S batteries. Energy and Environmental Science, 2021, 14, 3757-3795.	30.8	62
13	Hot Electrons Generated in Chiral Plasmonic Nanocrystals as a Mechanism for Surface Photochemistry and Chiral Growth. Journal of the American Chemical Society, 2020, 142, 4193-4205.	13.7	58
14	An Emerging Energy Storage System: Advanced Naâ€“Se Batteries. ACS Nano, 2021, 15, 5876-5903.	14.6	56
15	Structure/Property Relations in â€œGiantâ€•Semiconductor Nanocrystals: Opportunities in Photonics and Electronics. Accounts of Chemical Research, 2018, 51, 609-618.	15.6	51
16	Quantum Dotsâ€Based Photoelectrochemical Hydrogen Evolution from Water Splitting. Advanced Energy Materials, 2021, 11, 2003233.	19.5	51
17	Engineering plasmonic hot carrier dynamics toward efficient photodetection. Applied Physics Reviews, 2021, 8, .	11.3	47
18	â€œGreenâ€• gradient multi-shell CuInSe2/(CuInSexS1-x)5/CuInS2 quantum dots for photo-electrochemical hydrogen generation. Applied Catalysis B: Environmental, 2021, 280, 119402.	20.2	46

#	Article	IF	Citations
19	Advanced Highâ€Performance Potassiumâ€“Chalcogen (S, Se, Te) Batteries. Small, 2021, 17, e2004369.	10.0	45
20	Interfacial engineering in colloidal â€œgiantâ€•quantum dots for high-performance photovoltaics. Nano Energy, 2019, 55, 377-388.	16.0	44
21	Efficient and stable photoelectrochemical hydrogen generation using optimized colloidal heterostructured quantum dots. Nano Energy, 2021, 79, 105416.	16.0	43
22	Broadband Tamm plasmon-enhanced planar hot-electron photodetector. Nanoscale, 2020, 12, 23945-23952.	5.6	37
23	Toward Continuous-Wave Pumped Metal Halide Perovskite Lasers: Strategies and Challenges. ACS Nano, 2022, 16, 7116-7143.	14.6	32
24	Rechargeable Potassiumâ€“Selenium Batteries. Advanced Functional Materials, 2021, 31, 2102326.	14.9	30
25	Metal-based electrocatalysts for room-temperature Naâ€“S batteries. Materials Horizons, 2021, 8, 2870-2885.	12.2	29
26	Nanostructure Engineering Strategies of Cathode Materials for Room-Temperature Naâ€“S Batteries. ACS Nano, 2022, 16, 5103-5130.	14.6	27
27	Chiral Bioinspired Plasmonics: A Paradigm Shift for Optical Activity and Photochemistry. ACS Photonics, 2022, 9, 2219-2236.	6.6	26
28	Generation of hot electrons in nanostructures incorporating conventional and unconventional plasmonic materials. Faraday Discussions, 2019, 214, 199-213.	3.2	24
29	Planar hot-electron photodetector utilizing high refractive index MoS2 in Fabryâ€“PÃ©rot perfect absorber. Nanotechnology, 2020, 31, 274001.	2.6	24
30	Chiral Optofluidics with a Plasmonic Metasurface Using the Photothermal Effect. ACS Nano, 2021, 15, 16357-16367.	14.6	23
31	High efficiency photoelectrochemical hydrogen generation using eco-friendly Cu doped Zn-In-Se colloidal quantum dots. Nano Energy, 2021, 88, 106220.	16.0	23
32	Red phosphorus: A rising star of anode materials for advanced K-ion batteries. Energy Storage Materials, 2021, 42, 193-208.	18.0	22
33	Ultraflexible Photothermal Superhydrophobic Coating with Multifunctional Applications Based on Plasmonic TiN Nanoparticles. Advanced Optical Materials, 2022, 10, .	7.3	18
34	Fibrous cathode materials for advanced sodium-chalcogen batteries. Energy Storage Materials, 2022, 45, 265-280.	18.0	15
35	Plasmonic Nanocrystals with Complex Shapes for Photocatalysis and Growth: Contrasting Anisotropic Hotâ€Electron Generation with the Photothermal Effect. Advanced Optical Materials, 2022, 10, .	7.3	15
36	Role of Interfacial Engineering of â€œGiantâ€•Coreâ€“Shell Quantum Dots. ACS Applied Energy Materials, 2022, 5, 1447-1459.	5.1	14

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37	Photoluminescence and Raman Spectra of One-Dimensional Lead-free Perovskite CsCu₂I₃ Single-Crystal Wires. Journal of Physical Chemistry Letters, 2022, 13, 6447-6454.	4.6	13
38	DNA-Assembled Chiral Satellite-Core Nanoparticle Superstructures: Two-State Chiral Interactions from Dynamic and Static Conformations. Nano Letters, 2022, 22, 4784-4791.	9.1	10
39	Signature of p-type semiconductor features in paper-based back gate metal-organic framework thin-film transistors. Applied Physics Letters, 2020, 117, .	3.3	5