Chao Zhao

List of Publications by Year
in descending order

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71 papers	3,858 citations	218662 26 h-index	144002 57 g-index
73 all docs	73 docs citations	73 times ranked	6210 citing authors

#	Article	IF	Citations
1	Novel III-V semiconductor epitaxy for optoelectronic devices through two-dimensional materials. Progress in Quantum Electronics, 2021, 76, 100313.	7.0	9
2	In(Ga)N Nanostructures and Devices Grown by Molecular Beam Epitaxy and Metal-Assisted Photochemical Etching. Nanomaterials, 2021, 11, 126.	4.1	6
3	Gating control effect facilitates excellent gas selectivity in a novel Na-SSZ-27 zeolite. Chemical Communications, 2021, 57, 4170-4173.	4.1	2
4	Optical management in organic photovoltaic devices. , 2021, 3, 4-23.		15
5	Photocatalytic Water Oxidation Directly Using Plasmonics from Single Au Nanowires without the Contact with Semiconductors. ACS Catalysis, 2021, 11, 12940-12946.	11.2	8
6	Facile Synthesis of Defect-Modified Thin-Layered and Porous g-C₃N₄ with Synergetic Improvement for Photocatalytic H₂ Production. ACS Applied Materials & Interfaces, 2020, 12, 52603-52614.	8.0	65
7	Piezotronic AlGaN nanowire Schottky junctions grown on a metal substrate. AIP Advances, 2020, 10, .	1.3	4
8	Preface to the Special Issue on the Celebration of the 60th Anniversary of Dedicating to Scientific Research of Prof. Zhanguo Wang. Journal of Semiconductors, 2020, 41, 010101.	3.7	0
9	An efficient entangled-photon source from semiconductor quantum dots. Journal of Semiconductors, 2020, 41, 010401.	3.7	2
10	Boron-doped IIIâ€“V semiconductors for Si-based optoelectronic devices. Journal of Semiconductors, 2020, 41, 011301.	3.7	12
11	Circulating exosomal CPNE3 as a diagnostic and prognostic biomarker for colorectal cancer. Journal of Cellular Physiology, 2019, 234, 1416-1425.	4.1	92
12	Direct Growth of Single Crystalline GaN Nanowires on Indium Tin Oxide-Coated Silica. Nanoscale Research Letters, 2019, 14, 45.	5.7	5
13	Ultraviolet-A LED Based on Quantum-Disks-In-AlGaN-Nanowiresâ€”Optimization and Device Reliability. IEEE Photonics Journal, 2018, 10, 1-11.	2.0	8
14	Multi-wavelength emission from a single InGaN/GaN nanorod analyzed by cathodoluminescence hyperspectral imaging. Scientific Reports, 2018, 8, 1742.	3.3	9
15	Imaging Localized Energy States in Silicon-Doped InGaN Nanowires Using 4D Electron Microscopy. ACS Energy Letters, 2018, 3, 476-481.	17.4	15
16	Water splitting to hydrogen over epitaxially grown InGaN nanowires on a metallic titanium/silicon template: reduced interfacial transfer resistance and improved stability to hydrogen. Journal of Materials Chemistry A, 2018, 6, 6922-6930.	10.3	41
17	Role of quantum-confined stark effect on bias dependent photoluminescence of N-polar GaN/InGaN multi-quantum disk amber light emitting diodes. Journal of Applied Physics, 2018, 123, .	2.5	20
18	Rechargeable Aqueous Zincâ€ion Battery Based on Porous Framework Zinc Pyrovanadate Intercalation Cathode. Advanced Materials, 2018, 30, 1705580.	21.0	738

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19	Ultraviolet-A LED Based on Quantum-Disks-in-AlGaN-Nanowiresâ€"Optimization and Device Reliability. , 2018, , .		1
20	Controlled Growth of InAs/GaAs Nanostructures by Droplet Epitaxy. Journal of Nanoscience and Nanotechnology, 2018, 18, 7617-7622.	0.9	1
21	InGaN-based Nanowires on Conductive Substrates for Enhanced Solar Hydrogen Generation. , 2018, , .		0
22	Large Intercalation Pseudocapacitance in 2D VO₂ (B): Breaking through the Kinetic Barrier. Advanced Materials, 2018, 30, e1803594.	21.0	50
23	Quantified hole concentration in AlGaN nanowires for high-performance ultraviolet emitters. Nanoscale, 2018, 10, 15980-15988.	5.6	17
24	Flexible InGaN nanowire membranes for enhanced solar water splitting. Optics Express, 2018, 26, A640.	3.4	13
25	III-nitride nanowires on unconventional substrates: From materials to optoelectronic device applications. Progress in Quantum Electronics, 2018, 61, 1-31.	7.0	76
26	Diode junction temperature in ultraviolet AlGaN quantum-disks-in-nanowires. Journal of Applied Physics, 2018, 124, 015702.	2.5	11
27	Direct Growth of III-Nitride Nanowire-Based Yellow Light-Emitting Diode on Amorphous Quartz Using Thin Ti Interlayer. Nanoscale Research Letters, 2018, 13, 41.	5.7	17
28	Graded-Index Separate Confinement Heterostructure AlGaN Nanowires: Toward Ultraviolet Laser Diodes Implementation. ACS Photonics, 2018, 5, 3305-3314.	6.6	54
29	Unleashing the potential of molecular beam epitaxy grown AlGaN-based ultraviolet-spectrum nanowires devices. Journal of Nanophotonics, 2018, 12, 1.	1.0	24
30	Evolution of Junction Temperature and Heating Effects in UV AlGaN Nanowires LEDs. , 2018, , .		0
31	Ti/TaN Bilayer for Efficient Injection and Reliable AlGaN Nanowires LEDs. , 2018, , .		1
32	Health-friendly high-quality white light using violet-green-red laser and InGaN nanowires-based true yellow nanowires light-emitting diodes. , 2017, , .		3
33	Surface Passivation of GaN Nanowires for Enhanced Photoelectrochemical Water-Splitting. Nano Letters, 2017, 17, 1520-1528.	9.1	175
34	Unbiased photocatalytic hydrogen generation from pure water on stable Ir-treated In 0.33 Ga 0.67 N nanorods. Nano Energy, 2017, 37, 158-167.	16.0	49
35	InGaN/GaN nanowires epitaxy on large-area MoS2 for high-performance light-emitters. RSC Advances, 2017, 7, 26665-26672.	3.6	32
36	Self-planarized quantum-disks-in-nanowires ultraviolet-B emitters utilizing pendeo-epitaxy. Nanoscale, 2017, 9, 7805-7813.	5.6	36

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37	Spatially resolved investigation of competing nanocluster emission in quantum-disks-in-nanowires structure characterized by nanoscale cathodoluminescence. Journal of Nanophotonics, 2017, 11, 026015.	1.0	3
38	Enhancing the Light-Extraction Efficiency of an AlGaN Nanowire Ultraviolet Light-Emitting Diode by Using Nitride/Air Distributed Bragg Reflector Nanogratings. IEEE Photonics Journal, 2017, 9, 1-8.	2.0	15
39	Droop-free Al_xGa_{1-x}N/Al_yGa_{1-y}N quantum-disks-in-nanowires ultraviolet LED emitting at 337 nm on metal/silicon substrates. Optics Express, 2017, 25, 1381.	3.4	60
40	Highly uniform ultraviolet-A quantum-confined AlGaN nanowire LEDs on metal/silicon with a TaN interlayer. Optical Materials Express, 2017, 7, 4214.	3.0	27
41	A Yellow Emitting InGaN/GaN Nanowires-based Light Emitting Diode Grown on Scalable Quartz Substrate. , 2017, , .		0
42	Enhanced Optoelectronic Performance of a Passivated Nanowireâ€Based Device: Key Information from Realâ€Space Imaging Using 4D Electron Microscopy. Small, 2016, 12, 2313-2320.	10.0	37
43	Droop-Free, Reliable, and High-Power InGaN/GaN Nanowire Light-Emitting Diodes for Monolithic Metal-Optoelectronics. Nano Letters, 2016, 16, 4616-4623.	9.1	101
44	InGaN/GaN nanowire LEDs and lasers. , 2016, , .		2
45	Selenideâ€Based Electrocatalysts and Scaffolds for Water Oxidation Applications. Advanced Materials, 2016, 28, 77-85.	21.0	544
46	Asymmetric supercapacitors with metal-like ternary selenides and porous graphene electrodes. Nano Energy, 2016, 24, 78-86.	16.0	180
47	Engineering of CH₃NH₃PbI₃ Perovskite Crystals by Alloying Large Organic Cations for Enhanced Thermal Stability and Transport Properties. Angewandte Chemie - International Edition, 2016, 55, 10686-10690.	13.8	152
48	Ultrabroad linewidth orange-emitting nanowires LED for high CRI laser-based white lighting and gigahertz communications. Optics Express, 2016, 24, 19228.	3.4	20
49	True Yellow Light-Emitting Diodes as Phosphor for Tunable Color-Rendering Index Laser-Based White Light. ACS Photonics, 2016, 3, 2089-2095.	6.6	25
50	Site controlled red-yellow-green light emitting InGaN quantum discs on nano-tipped GaN rods. Nanoscale, 2016, 8, 11019-11026.	5.6	12
51	Lattice-Polarity-Driven Epitaxy of Hexagonal Semiconductor Nanowires. Nano Letters, 2016, 16, 1328-1334.	9.1	35
52	Facile Formation of High-Quality InGaN/GaN Quantum-Disks-in-Nanowires on Bulk-Metal Substrates for High-Power Light-Emitters. Nano Letters, 2016, 16, 1056-1063.	9.1	84
53	Direct Growth of High-Power InGaN/GaN Quantum-Disks-in-Nanowires Red Light-Emitting Diodes on Polycrystalline Molybdenum Substrates. , 2016, , .		0
54	High-performance InGaN/GaN Quantum-Disks-in-Nanowires Light-emitters for Monolithic Metal-Optoelectronics. , 2016, , .		0

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55	Origin of competing blue and green emission in InGaN/GaN quantum-disks in nanowires heterostructure. , 2015, , .		0
56	Enzymatic Dissolution of Biocomposite Solids Consisting of Phosphopeptides to Form Supramolecular Hydrogels. Chemistry - A European Journal, 2015, 21, 18047-18051.	3.3	10
57	Solution-phase synthesis of chromium-functionalized single-walled carbon nanotubes. Materials Letters, 2015, 142, 312-316.	2.6	5
58	AlGaN-based deep-ultraviolet light-emitting diodes grown on High-quality AlN template using MOVPE. Journal of Crystal Growth, 2015, 414, 254-257.	1.5	93
59	An enhanced surface passivation effect in InGaN/GaN disk-in-nanowire light emitting diodes for mitigating Shockleyâ€“Readâ€“Hall recombination. Nanoscale, 2015, 7, 16658-16665.	5.6	84
60	Air-Stable Surface-Passivated Perovskite Quantum Dots for Ultra-Robust, Single- and Two-Photon-Induced Amplified Spontaneous Emission. Journal of Physical Chemistry Letters, 2015, 6, 5027-5033.	4.6	466
61	Red to Near-Infrared Emission from InGaN/GaN Quantum-Disks-in-Nanowires LED. , 2014, , .		2
62	The formation of hexagonal-shaped InGaN-nanodisk on GaN-nanowire observed in plasma source molecular beam epitaxy. , 2014, , .		1
63	Integrating carbon nanotubes into silicon by means of vertical carbon nanotube field-effect transistors. Nanoscale, 2014, 6, 8956-8961.	5.6	6
64	Monolithic Electrically Injected Nanowire Array Edge-Emitting Laser on (001) Silicon. Nano Letters, 2014, 14, 4535-4541.	9.1	177
65	Growth and characterization of titanium oxide by plasma enhanced atomic layer deposition. Thin Solid Films, 2013, 542, 38-44.	1.8	8
66	Bioâ€Assembled Nanocomposites in Conch Shells Exhibit Giant Electret Hysteresis. Advanced Materials, 2013, 25, 711-718.	21.0	19
67	The influence of metal interlayers on the structural and optical properties of nano-crystalline TiO2 films. Applied Surface Science, 2012, 258, 4532-4537.	6.1	31
68	Self-assembled manganese oxide structures through direct oxidation. Applied Surface Science, 2012, 263, 397-404.	6.1	2
69	Vertically aligned carbon nanotube field-effect transistors. Carbon, 2012, 50, 4628-4632.	10.3	12
70	Improved performance of UVâ€LED by pâ€AlGaN with graded composition. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 461-463.	0.8	30
71	Morphology and wetting layer properties of InAs/GaAs nanostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 789-792.	0.8	0