

Jian Xu

List of Publications by Year in descending order

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56
papers

2,385
citations

394421

19
h-index

197818

49
g-index

56
all docs

56
docs citations

56
times ranked

3713
citing authors

#	ARTICLE	IF	CITATIONS
1	Bright, multicoloured light-emitting diodes based on quantum dots. <i>Nature Photonics</i> , 2007, 1, 717-722.	31.4	1,042
2	Bright and Color-Saturated Emission from Blue Light-Emitting Diodes Based on Solution-Processed Colloidal Nanocrystal Quantum Dots. <i>Nano Letters</i> , 2007, 7, 3803-3807.	9.1	197
3	Near-Band-Edge Electroluminescence from Heavy-Metal-Free Colloidal Quantum Dots. <i>Advanced Materials</i> , 2011, 23, 3553-3558.	21.0	180
4	Synthesis of Nitrogen and Sulfur Co-doped Carbon Dots from Garlic for Selective Detection of Fe ³⁺ . <i>Nanoscale Research Letters</i> , 2016, 11, 110.	5.7	150
5	Time-resolved photoluminescence properties of CuInS ₂ /ZnS nanocrystals: Influence of intrinsic defects and external impurities. <i>Journal of Applied Physics</i> , 2012, 111, 124314.	2.5	69
6	Surface-enhanced fluorescence from metal sculptured thin films with application to biosensing in water. <i>Applied Physics Letters</i> , 2009, 94, 063106.	3.3	65
7	High-speed optical humidity sensors based on chiral sculptured thin films. <i>Sensors and Actuators B: Chemical</i> , 2011, 156, 593-598.	7.8	45
8	Colloidal nanocrystal-based light-emitting diodes fabricated on plastic toward flexible quantum dot optoelectronics. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	43
9	Monolithic integration of nitride light emitting diodes and photodetectors for bi-directional optical communication. <i>Optics Letters</i> , 2014, 39, 5657.	3.3	39
10	Near-infrared quantum dot light emitting diodes employing electron transport nanocrystals in a layered architecture. <i>Nanotechnology</i> , 2012, 23, 375202.	2.6	36
11	Integration of planar and bulk heterojunctions in polymer/nanocrystal hybrid photovoltaic cells. <i>Applied Physics Letters</i> , 2009, 95, 063510.	3.3	35
12	Oxygen and seizure dynamics: I. Experiments. <i>Journal of Neurophysiology</i> , 2014, 112, 205-212.	1.8	35
13	Stable Binary Complementary White Light-Emitting Diodes Based on Quantum-Dot/Polymer-Bilayer Structures. <i>IEEE Photonics Technology Letters</i> , 2008, 20, 1998-2000.	2.5	32
14	Nonradiative energy transfer between colloidal quantum dot-phosphors and nanopillar nitride LEDs. <i>Optics Express</i> , 2012, 20, A333.	3.4	30
15	Sidewall passivation for InGaN/GaN nanopillar light emitting diodes. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	30
16	A Compact and Broadband Photonic Crystal Fiber Polarization Filter Based on a Plasmonic Resonant Thin Gold Film. <i>IEEE Photonics Journal</i> , 2019, 11, 1-12.	2.0	28
17	Multiphoton absorption induced amplified spontaneous emission from biocatalyst-synthesized ZnO nanorods. <i>Applied Physics Letters</i> , 2008, 92, 233116.	3.3	25
18	Circularly polarized fluorescence from light-emitting microcavities with sculptured-thin-film chiral reflectors. <i>Optics Communications</i> , 2006, 264, 235-239.	2.1	21

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19	Room temperature mid-infrared surface-emitting photonic crystal laser on silicon. Applied Physics Letters, 2011, 99, .	3.3	20
20	Microcavity light-emitting devices based on colloidal semiconductor nanocrystal quantum dots. IEEE Photonics Technology Letters, 2005, 17, 2008-2010.	2.5	19
21	Six Emerging Directions in Sculptured-Thin-Film Research. , 2008, , 295-307.		19
22	Composition-limited spectral response of hybrid photovoltaic cells containing infrared PbSe nanocrystals. Journal of Applied Physics, 2008, 104, 044306.	2.5	19
23	Bias-Enhanced Visible-Rejection of GaN Schottky Barrier Ultraviolet Photodetectors. IEEE Photonics Technology Letters, 2015, 27, 994-997.	2.5	19
24	The Impact of Carrier Transport Confinement on the Energy Transfer Between InGaN/GaN Quantum Well Nanorods and Colloidal Nanocrystals. Advanced Functional Materials, 2012, 22, 3146-3152.	14.9	17
25	Frequency upconverted lasing of nanocrystal quantum dots in microbeads. Applied Physics Letters, 2009, 95, 183109.	3.3	15
26	Colloidal quantum dot absorption enhancement in flexible Fano filters. Applied Physics Letters, 2010, 96, .	3.3	15
27	Elimination of threading dislocations in as-grown PbSe film on patterned Si(111) substrate using molecular beam epitaxy. Applied Physics Letters, 2010, 96, 251911.	3.3	14
28	Ultra-sensitive tandem colloidal quantum-dot photodetectors. Nanoscale, 2015, 7, 16195-16199.	5.6	13
29	Design of a Metal-Filled Photonic-Crystal Fiber Polarization Filter Based on Surface Plasmon Resonance at 1.31 and $1.55\mu\text{m}$. IEEE Photonics Journal, 2018, 10, 1-13.	2.0	13
30	Solution-processed high-performance colloidal quantum dot tandem photodetectors on flexible substrates. Journal of Applied Physics, 2014, 116, 084303.	2.5	10
31	An essential difference between dielectric mirrors and chiral mirrors. Microwave and Optical Technology Letters, 2005, 47, 63-64.	1.4	9
32	Mid-infrared surface-emitting photonic crystal microcavity light emitter on silicon. Applied Physics Letters, 2010, 97, 231103.	3.3	9
33	Suppression of dark current through barrier engineer for solution-processed colloidal quantum-dots infrared photodetectors. Applied Physics Letters, 2015, 107, .	3.3	8
34	Junction temperature measurement of alternating current light-emitting-diode by threshold voltage method. Frontiers of Optoelectronics, 2016, 9, 555-559.	3.7	8
35	Modeling the back gate effects of AlGaIn/GaN HEMTs. Journal of Computational Electronics, 2014, 13, 872-876.	2.5	7
36	On the design of GaN vertical MESFETs on commercial LED sapphire wafers. Solid-State Electronics, 2016, 126, 23-31.	1.4	7

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37	Reduced reabsorption and enhanced propagation induced by large Stokes shift in quantum dot-filled optical fiber. <i>Journal of Nanoparticle Research</i> , 2016, 18, 1.	1.9	7
38	Alternating Current III-Nitride Light-Emitting Diodes With On-Chip Schottky Barrier Diode Rectifiers. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 3881-3886.	3.0	7
39	Modeling the spectral responsivity of ultraviolet GaN Schottky barrier photodetectors under reverse bias. <i>Journal of Applied Physics</i> , 2015, 117, 134503.	2.5	5
40	Feasibility study for thermal-field directed self-assembly of heteroepitaxial quantum dots. <i>Applied Physics Letters</i> , 2006, 88, 093105.	3.3	4
41	Electrical and optical modeling of gap-free III-nitride micro-LED arrays. <i>AIP Advances</i> , 2020, 10, .	1.3	4
42	Time-resolved fluorescence up-conversion study of radiative recombination dynamics in III-nitride light emitting diodes over a wide bias range. <i>Applied Physics Letters</i> , 2013, 103, 121109.	3.3	3
43	Modeling of Nanophosphor-Coupled Porous Layers for Color Conversion in III-Nitride Micro-LED Arrays. <i>Journal of Electronic Materials</i> , 2022, 51, 3023-3032.	2.2	3
44	Developing PbSe/PbS core-shell nanocrystals quantum dots toward their potential heterojunction applications. <i>Journal of Experimental Nanoscience</i> , 2007, 2, 13-21.	2.4	2
45	The configuration of DMD and the maximum intensity projection method for improving contrast in DMD-based confocal microscope. <i>Microscopy Research and Technique</i> , 2018, 81, 1017-1023.	2.2	2
46	Degradation Studies of Colloidal Quantum Dot Light-Emitting Diodes. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1286, 55.	0.1	1
47	Stability Investigation of CuInS ₂ based heavy-metal free nanocrystals. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1316, 1.	0.1	1
48	Nonradiative Energy Transfer Between Colloidal Quantum-Dot Phosphors and Silicon Carbide Diodes. <i>Journal of Electronic Materials</i> , 2013, 42, 805-808.	2.2	1
49	Full-color GaN-based LED Microdisplay Integrated with Dynamic Color Filter. <i>Digest of Technical Papers SID International Symposium</i> , 2019, 50, 852-855.	0.3	1
50	Fabrication of high-breakdown GaN Schottky barrier diodes over deeply-etched crystal surfaces. <i>Journal of Applied Physics</i> , 2020, 128, 115703.	2.5	1
51	Microcavity Light Emitting Devices Based on Colloidal Semiconductor Nanocrystal Quantum Dots. , 2006, , .		0
52	Efficient harvest of near infrared light in nanocrystal-polymer hybrid photovoltaic composites. , 2006, , .		0
53	Developing bright and color-saturated quantum dot light emitting diodes towards next generation displays and solid state lighting. , 2008, , .		0
54	Colloidal nanocrystal-based light-emitting diodes fabricated on plastic - Towards flexible quantum dot optoelectronics. , 2009, , .		0

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55	Employing Photo-Assisted Ligand Exchange Technique in Layered Quantum Dot LEDs. Materials Research Society Symposia Proceedings, 2011, 1286, 54.	0.1	0
56	18.1: Invited Paper: Color Conversion in III-Nitride Micro-LEDs with Embedded Nanostructures. Digest of Technical Papers SID International Symposium, 2021, 52, 238-238.	0.3	0