Min-Jae Choi

List of Publications by Year
in descending order

44 papers	3,429 citations	172386 29 h-index	233338 45 g-index
46 all docs	46 docs citations	46 times ranked	4947 citing authors

#	Article	IF	Citations
1	Bipolar-shell resurfacing for blue LEDs based on strongly confined perovskite quantum dots. Nature Nanotechnology, 2020, 15, 668-674.	15.6	541
2	Metalâ€“Organic Frameworks Mediate Cu Coordination for Selective CO₂ Electroreduction. Journal of the American Chemical Society, 2018, 140, 11378-11386.	6.6	326
3	Controlled Doping of Vacancy-Containing Few-Layer MoS₂ <i>via</i> Highly Stable Thiol-Based Molecular Chemisorption. ACS Nano, 2015, 9, 12115-12123.	7.3	320
4	Lattice anchoring stabilizes solution-processed semiconductors. Nature, 2019, 570, 96-101.	13.7	208
5	Cascade surface modification of colloidal quantum dot inks enables efficient bulk homojunction photovoltaics. Nature Communications, 2020, 11, 103.	5.8	181
6	Monolayer Perovskite Bridges Enable Strong Quantum Dot Coupling for Efficient Solar Cells. Joule, 2020, 4, 1542-1556.	11.7	143
7	Machine Learning Accelerates Discovery of Optimal Colloidal Quantum Dot Synthesis. ACS Nano, 2019, 13, 11122-11128.	7.3	108
8	Stable Colloidal Quantum Dot Inks Enable Inkjet-Printed High-Sensitivity Infrared Photodetectors. ACS Nano, 2019, 13, 11988-11995.	7.3	99
9	Bright and Stable Light-Emitting Diodes Based on Perovskite Quantum Dots in Perovskite Matrix. Journal of the American Chemical Society, 2021, 143, 15606-15615.	6.6	94
10	A Facetâ€Specific Quantum Dot Passivation Strategy for Colloid Management and Efficient Infrared Photovoltaics. Advanced Materials, 2019, 31, e1805580.	11.1	87
11	Mixed Lead Halide Passivation of Quantum Dots. Advanced Materials, 2019, 31, e1904304.	11.1	81
12	Extremely High Yield Conversion from Lowâ€Cost Sand to Highâ€Capacity Si Electrodes for Liâ€Ion Batteries. Advanced Energy Materials, 2014, 4, 1400622.	10.2	75
13	Butylamineâ€Catalyzed Synthesis of Nanocrystal Inks Enables Efficient Infrared CQD Solar Cells. Advanced Materials, 2018, 30, e1803830.	11.1	67
14	Extremely Small Pyrrhotite Fe₇S₈ Nanocrystals with Simultaneous Carbonâ€Encapsulation for Highâ€Performance Naâ€“Ion Batteries. Small, 2018, 14, 1702816.	5.2	62
15	A Chemically Orthogonal Hole Transport Layer for Efficient Colloidal Quantum Dot Solar Cells. Advanced Materials, 2020, 32, e1906199.	11.1	59
16	Activated Electronâ€Transport Layers for Infrared Quantum Dot Optoelectronics. Advanced Materials, 2018, 30, e1801720.	11.1	57
17	Acid-Assisted Ligand Exchange Enhances Coupling in Colloidal Quantum Dot Solids. Nano Letters, 2018, 18, 4417-4423.	4.5	57
18	A Tuned Alternating Dâ€“A Copolymer Holeâ€Transport Layer Enables Colloidal Quantum Dot Solar Cells with Superior Fill Factor and Efficiency. Advanced Materials, 2020, 32, e2004985.	11.1	56

#	Article	IF	Citations
19	Tailoring of the PbS/metal interface in colloidal quantum dot solar cells for improvements of performance and air stability. Energy and Environmental Science, 2014, 7, 3052.	15.6	55
20	Long-Term Stable 2H-MoS₂ Dispersion: Critical Role of Solvent for Simultaneous Phase Restoration and Surface Functionalization of Liquid-Exfoliated MoS₂. ACS Omega, 2017, 2, 4678-4687.	1.6	55
21	Thermodynamic-driven polychromatic quantum dot patterning for light-emitting diodes beyond eye-limiting resolution. Nature Communications, 2020, 11, 3040.	5.8	53
22	Nanostructured Back Reflectors for Efficient Colloidal Quantumâ€Dot Infrared Optoelectronics. Advanced Materials, 2019, 31, e1901745.	11.1	49
23	Orthogonal colloidal quantum dot inks enable efficient multilayer optoelectronic devices. Nature Communications, 2020, 11, 4814.	5.8	48
24	Stabilizing Surface Passivation Enables Stable Operation of Colloidal Quantum Dot Photovoltaic Devices at Maximum Power Point in an Air Ambient. Advanced Materials, 2020, 32, e1906497.	11.1	47
25	Ligand-Assisted Reconstruction of Colloidal Quantum Dots Decreases Trap State Density. Nano Letters, 2020, 20, 3694-3702.	4.5	46
26	Facetâ€Oriented Coupling Enables Fast and Sensitive Colloidal Quantum Dot Photodetectors. Advanced Materials, 2021, 33, e2101056.	11.1	42
27	Porous silicon nanowires for lithium rechargeable batteries. Nanotechnology, 2013, 24, 424008.	1.3	38
28	Ligand Exchange at a Covalent Surface Enables Balanced Stoichiometry in IIIâ€"V Colloidal Quantum Dots. Nano Letters, 2021, 21, 6057-6063.	4.5	34
29	Interfacial band-edge engineered TiO2 protection layer on Cu2O photocathodes for efficient water reduction reaction. Electronic Materials Letters, 2017, 13, 57-65.	1.0	33
30	Control Over Ligand Exchange Reactivity in Hole Transport Layer Enables High-Efficiency Colloidal Quantum Dot Solar Cells. ACS Energy Letters, 2021, 6, 468-476.	8.8	32
31	Ultraâ€High Optical Transparency of Robust, Gradedâ€Index, and Antiâ€Fogging Silica Coating Derived from Siâ€Containing Block Copolymers. Advanced Optical Materials, 2013, 1, 428-433.	3.6	29
32	Highly Asymmetric n⁺â€"p Heterojunction Quantumâ€Dot Solar Cells with Significantly Improved Chargeâ€Collection Efficiencies. Advanced Materials, 2016, 28, 1780-1787.	11.1	29
33	Tuning Soluteâ€Redistribution Dynamics for Scalable Fabrication of Colloidal Quantumâ€Dot Optoelectronics. Advanced Materials, 2019, 31, e1805886.	11.1	28
34	Efficient and Stable Colloidal Quantum Dot Solar Cells with a Greenâ€Solvent Holeâ€Transport Layer. Advanced Energy Materials, 2020, 10, 2002084.	10.2	23
35	Colloidal Quantum Dot Bulk Heterojunction Solids with Nearâ€Unity Charge Extraction Efficiency. Advanced Science, 2020, 7, 2000894.	5.6	22
36	Infrared Cavity-Enhanced Colloidal Quantum Dot Photovoltaics Employing Asymmetric Multilayer Electrodes. ACS Energy Letters, 2018, 3, 2908-2913.	8.8	20

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37	Surfaceâ€Shielding Nanostructures Derived from Selfâ€Assembled Block Copolymers Enable Reliable Plasma Doping for Fewâ€Layer Transition Metal Dichalcogenides. Advanced Functional Materials, 2016, 26, 5631-5640.	7.8	19
38	Localized surface plasmon-enhanced nanosensor platform using dual-responsive polymer nanocomposites. Nanoscale, 2013, 5, 7403.	2.8	16
39	Monolithic Organic/Colloidal Quantum Dot Hybrid Tandem Solar Cells via Buffer Engineering. Advanced Materials, 2020, 32, e2004657.	11.1	16
40	Suppression of Auger Recombination by Gradient Alloying in InAs/CdSe/CdS QDs. Chemistry of Materials, 2020, 32, 7703-7709.	3.2	15
41	Suppressing Interfacial Dipoles to Minimize Openâ€Circuit Voltage Loss in Quantum Dot Photovoltaics. Advanced Energy Materials, 2019, 9, 1901938.	10.2	14
42	Evaluation of nonequibiaxial residual stress using Knoop indenter. Journal of Materials Research, 2012, 27, 121-125.	1.2	13
43	Accelerated solution-phase exchanges minimize defects in colloidal quantum dot solids. Nano Energy, 2019, 63, 103876.	8.2	12
44	Single Nanoparticle Localization in the Perforated Lamellar Phase of Self-Assembled Block Copolymer Driven by Entropy Minimization. Macromolecules, 2015, 48, 7938-7944.	2.2	11