Sohee Jeong

List of Publications by Year
in descending order

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118 papers	5,662 citations	71061 41 h-index	82499 72 g-index
120 all docs	120 docs citations	120 times ranked	7883 citing authors

#	Article	IF	Citations
1	Shapeâ€Tuned Multiphotonâ€Emitting InP Nanotetrapods. Advanced Materials, 2022, 34, e2110665.	11.1	8
2	Energetic Sulfide Vaporâ€Processed Colloidal InAs Quantum Dot Solids for Efficient Charge Transport and Photoconduction. Advanced Photonics Research, 2022, 3, .	1.7	4
3	Shapeâ€Tuned Multiphotonâ€Emitting InP Nanotetrapods (Adv. Mater. 19/2022). Advanced Materials, 2022, 34, .	11.1	0
4	Chargeâ€Selective, Narrowâ€Gap Indium Arsenide Quantum Dot Layer for Highly Stable and Efficient Organic Photovoltaics. Advanced Energy Materials, 2022, 12, .	10.2	14
5	Unraveling the Role of Triiodides in Halide Precursors for Facile Anion Exchange in Lead Halide Perovskite Nanocrystals. Chemistry of Materials, 2022, 34, 6402-6407.	3.2	5
6	Purification of Colloidal Nanocrystals Along the Road to Highly Efficient Photovoltaic Devices. International Journal of Precision Engineering and Manufacturing - Green Technology, 2021, 8, 1309-1321.	2.7	6
7	Artificial stimulus-response system capable of conscious response. Science Advances, 2021, 7, .	4.7	44
8	Tip-Induced Strain Engineering of a Single Metal Halide Perovskite Quantum Dot. ACS Nano, 2021, 15, 9057-9064.	7.3	13
9	Diffusion dynamics controlled colloidal synthesis of highly monodisperse InAs nanocrystals. Nature Communications, 2021, 12, 3013.	5.8	41
10	Tailored growth of single-crystalline InP tetrapods. Nature Communications, 2021, 12, 4454.	5.8	17
11	Origin of the Stability and Transition from Anionic to Cationic Surface Ligand Passivation of All-Inorganic Cesium Lead Halide Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2020, 11, 652-658.	2.1	33
12	IIIâ€“V colloidal nanocrystals: control of covalent surfaces. Chemical Science, 2020, 11, 913-922.	3.7	77
13	A relationship between the surface composition and spectroscopic properties of cesium lead bromide (CsPbBr₃) perovskite nanocrystals: focusing on photoluminescence efficiency. Nanoscale, 2020, 12, 1563-1570.	2.8	11
14	Efficiency Limit of Colloidal Quantum Dot Solar Cells: Effect of Optical Interference on Active Layer Absorption. ACS Energy Letters, 2020, 5, 248-251.	8.8	30
15	Design Strategy of Quantum Dot Thinâ€Film Solar Cells. Small, 2020, 16, e2002460.	5.2	27
16	Graphene/PbS quantum dot hybrid structure for application in near-infrared photodetectors. Scientific Reports, 2020, 10, 12475.	1.6	28
17	Revisiting Effects of Ligand-Capped Nanocrystals in Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 1032-1034.	8.8	19
18	Suppression of hydroxylation on the surface of colloidal quantum dots to enhance the open-circuit voltage of photovoltaics. Journal of Materials Chemistry A, 2020, 8, 4844-4849.	5.2	21

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19	Ultimate Charge Extraction of Monolayer PbS Quantum Dot for Observation of Multiple Exciton Generation. ChemPhysChem, 2019, 20, 2657-2661.	1.0	1
20	Environmentally benign nanocrystals: challenges and future directions. Journal of Information Display, 2019, 20, 61-72.	2.1	15
21	Efficient hybrid colloidal quantum dot/organic solar cells mediated by near-infrared sensitizing small molecules. Nature Energy, 2019, 4, 969-976.	19.8	120
22	PbS Colloidal Quantum Dot Solar Cells With Organic Hole Transport Layers for Enhanced Carrier Separation and Ambient Stability. IEEE Journal of Photovoltaics, 2018, 8, 493-498.	1.5	10
23	A Review on Eco-Friendly Quantum Dot Solar Cells: Materials and Manufacturing Processes. International Journal of Precision Engineering and Manufacturing - Green Technology, 2018, 5, 349-358.	2.7	36
24	High performance ultraviolet photodetector based on a spray-coated nanocrystal quantum dots layer and Si photodiode. Sensors and Actuators A: Physical, 2018, 273, 182-188.	2.0	3
25	Enhancement of Hot Electron Flow in Plasmonic Nanodiodes by Incorporating PbS Quantum Dots. ACS Applied Materials & Interfaces, 2018, 10, 5081-5089.	4.0	20
26	AC-dielectrophoretic force assisted fabrication of conducting quantum dot aggregates in the electrical breakdown-induced CNT nanogap. Applied Physics Letters, 2018, 112, 133105.	1.5	2
27	Energy level tuned indium arsenide colloidal quantum dot films for efficient photovoltaics. Nature Communications, 2018, 9, 4267.	5.8	67
28	A hydro/oxo-phobic top hole-selective layer for efficient and stable colloidal quantum dot solar cells. Energy and Environmental Science, 2018, 11, 2078-2084.	15.6	41
29	A Colloidalâ€Quantumâ€Dotâ€Based Selfâ€Charging System via the Nearâ€Infrared Band. Advanced Materials, 2018, 30, e1707224.	11.1	17
30	Continuous Purification of Colloidal Quantum Dots in Large-Scale Using Porous Electrodes in Flow Channel. Scientific Reports, 2017, 7, 43581.	1.6	22
31	High Performance Colloidal Quantum Dot Photovoltaics by Controlling Protic Solvents in Ligand Exchange. Advanced Energy Materials, 2017, 7, 1700301.	10.2	51
32	Supersonically Spray-Coated Colloidal Quantum Dot Ink Solar Cells. Scientific Reports, 2017, 7, 622.	1.6	51
33	Hysteresis and Photoinstability Caused by Mobile Ions in Colloidal Quantum Dot Photovoltaics. Journal of Physical Chemistry Letters, 2017, 8, 5259-5263.	2.1	14
34	Colloidal quantum dot based solar cells: from materials to devices. Nano Convergence, 2017, 4, 21.	6.3	41
35	Facetâ€Specific Ligand Interactions on Ternary AgSbS₂ Colloidal Quantum Dots. Chemistry - A European Journal, 2017, 23, 17707-17713.	1.7	16
36	Highly Stable Cesium Lead Halide Perovskite Nanocrystals through in Situ Lead Halide Inorganic Passivation. Chemistry of Materials, 2017, 29, 7088-7092.	3.2	292

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37	Broadband light trapping strategies for quantum-dot photovoltaic cells (>10%) and their issues with the measurement of photovoltaic characteristics. Scientific Reports, 2017, 7, 17393.	1.6	8
38	Facet-Specific Ligand Interactions on Ternary AgSbS2 Colloidal Quantum Dots.. Chemistry - A European Journal, 2017, 23, 17625-17625.	1.7	0
39	Oxygen aided photoresponse enhancement of air-stable PbSe quantum dot based photoconductors. Optical Materials Express, 2017, 7, 2905.	1.6	5
40	Halideâ€“Amine Coâ€Passivated Indium Phosphide Colloidal Quantum Dots in Tetrahedral Shape. Angewandte Chemie, 2016, 128, 3778-3782.	1.6	82
41	Chemistry of InP Nanocrystal Syntheses. Chemistry of Materials, 2016, 28, 2491-2506.	3.2	301
42	Fine tuning of emission property of white light-emitting diodes by quantum-dot-coating on YAG:Ce nanophosphors. Applied Surface Science, 2016, 379, 467-473.	3.1	22
43	Colloidal Single-Layer Quantum Dots with Lateral Confinement Effects on 2D Exciton. Journal of the American Chemical Society, 2016, 138, 13253-13259.	6.6	49
44	Tuning Size and Size Distribution of Colloidal InAs Nanocrystals via Continuous Supply of Prenucleation Clusters on Nanocrystal Seeds. Chemistry of Materials, 2016, 28, 8119-8122.	3.2	49
45	Halideâ€“Amine Coâ€Passivated Indium Phosphide Colloidal Quantum Dots in Tetrahedral Shape. Angewandte Chemie - International Edition, 2016, 55, 3714-3718.	7.2	102
46	Air-Stable PbSe Nanocrystals Passivated by Phosphonic Acids. Journal of the American Chemical Society, 2016, 138, 876-883.	6.6	69
47	Role of Surface States in Photocatalysis: Study of Chlorine-Passivated CdSe Nanocrystals for Photocatalytic Hydrogen Generation. Chemistry of Materials, 2016, 28, 962-968.	3.2	71
48	Electronic Structure and Elemental Composition of the Lead Sulfide Colloidal Quantum Dots Depending on the Types of Ligand and Post-Treatment. Journal of the Korean Chemical Society, 2016, 60, 402-409.	0.2	1
49	A Resonanceâ€Shifting Hybrid nâ€Type Layer for Boosting Nearâ€Infrared Response in Highly Efficient Colloidal Quantum Dots Solar Cells. Advanced Materials, 2015, 27, 8102-8108.	11.1	28
50	Colloidal Synthesis of Single-Layer MSe₂ (M = Mo, W) Nanosheets via Anisotropic Solution-Phase Growth Approach. Journal of the American Chemical Society, 2015, 137, 7266-7269.	6.6	147
51	Synthesis of colloidal InSb nanocrystals via in situ activation of InCl₃. Dalton Transactions, 2015, 44, 16923-16928.	1.6	22
52	Analysis and characterization of iron pyrite nanocrystals and nanocrystalline thin films derived from bromide anion synthesis. Journal of Materials Chemistry A, 2015, 3, 6853-6861.	5.2	36
53	Origin of photoluminescence from colloidal gallium phosphide nanocrystals synthesized via a hot-injection method. RSC Advances, 2015, 5, 2466-2469.	1.7	15
54	Tandem intercalation strategy for single-layer nanosheets as an effective alternative to conventional exfoliation processes. Nature Communications, 2015, 6, 5763.	5.8	137

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55	Air-Stable and Efficient PbSe Quantum-Dot Solar Cells Based upon ZnSe to PbSe Cation-Exchanged Quantum Dots. ACS Nano, 2015, 9, 8157-8164.	7.3	103
56	Photovoltaic light absorber with spatial energy band gradient using PbS quantum dot layers. Solar Energy Materials and Solar Cells, 2015, 141, 270-274.	3.0	8
57	Long-term stability of CdSe/CdZnS quantum dot encapsulated in a multi-lamellar microcapsule. Nanotechnology, 2015, 26, 275602.	1.3	22
58	Fabrication of periodic nanoparticle clusters using a soft lithographic template. Journal of Materials Chemistry C, 2015, 3, 4598-4602.	2.7	16
59	All-solution-processed PbS quantum dot solar modules. Nanoscale, 2015, 7, 8829-8834.	2.8	19
60	Direct Low-Temperature Growth of Single-Crystalline Anatase TiO₂ Nanorod Arrays on Transparent Conducting Oxide Substrates for Use in PbS Quantum-Dot Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 10324-10330.	4.0	12
61	Size Dependence of Excitation-Energy-Related Surface Trapping Dynamics in PbS Quantum Dots. Journal of Physical Chemistry C, 2015, 119, 7517-7524.	1.5	25
62	Atomic layer deposition effect on the electrical properties of Al2O3-passivated PbS quantum dot field-effect transistors. Applied Physics Letters, 2015, 106, 093507.	1.5	22
63	High performance of PbSe/PbS core/shell quantum dot heterojunction solar cells: short circuit current enhancement without the loss of open circuit voltage by shell thickness control. Nanoscale, 2015, 7, 17473-17481.	2.8	31
64	Charge Transport Characterization of PbS Quantum Dot Solids for High Efficiency Solar Cells. Journal of the Optical Society of Korea, 2015, 19, 272-276.	0.6	6
65	Determination of heterojunction band offsets between CdS bulk and PbS quantum dots using photoelectron spectroscopy. Applied Physics Letters, 2014, 105, 131604.	1.5	16
66	Space charge limited conduction in ultrathin PbS quantum dot solid diodes. Journal of Applied Physics, 2014, 115, .	1.1	17
67	Near-infrared-sensitive bulk heterojunction solar cells using nanostructured hybrid composites of HgTe quantum dots and a low-bandgap polymer. Solar Energy Materials and Solar Cells, 2014, 126, 163-169.	3.0	20
68	One-Step Deposition of Photovoltaic Layers Using Iodide Terminated PbS Quantum Dots. Journal of Physical Chemistry Letters, 2014, 5, 4002-4007.	2.1	57
69	Optical properties and carrier dynamics of CaSrSiO4:Eu3+ phosphors prepared by using the solid-state reaction method. Journal of the Korean Physical Society, 2014, 64, 1721-1725.	0.3	4
70	Electronic Structure of PbS Colloidal Quantum Dots on Indium Tin Oxide and Titanium Oxide. Journal of Physical Chemistry C, 2014, 118, 27884-27889.	1.5	20
71	Inverted Schottky quantum dot solar cells with enhanced carrier extraction and air-stability. Journal of Materials Chemistry A, 2014, 2, 20799-20805.	5.2	22
72	Continuous flow purification of nanocrystal quantum dots. Nanoscale, 2014, 6, 14467-14472.	2.8	15

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73	Slow colloidal growth of PbSe nanocrystals for facile morphology and size control. RSC Advances, 2014, 4, 9842.	1.7	22
74	Chemical Synthetic Strategy for Single-Layer Transition-Metal Chalcogenides. Journal of the American Chemical Society, 2014, 136, 14670-14673.	6.6	151
75	PbS Quantum Dot Solar Cells Integrated with Solâ€“Gel-Derived ZnO as an n-Type Charge-Selective Layer. Journal of Physical Chemistry C, 2014, 118, 17374-17382.	1.5	28
76	Ultrastable PbSe Nanocrystal Quantum Dots via in Situ Formation of Atomically Thin Halide Adlayers on PbSe(100). Journal of the American Chemical Society, 2014, 136, 8883-8886.	6.6	172
77	Improvement of the quality of gluten-free rice pound cake using extruded rice flour. Food Science and Biotechnology, 2013, 22, 173-180.	1.2	14
78	Graded synthetic approach for the fabrication of nanocrystal quantum dots for enhanced carrier injection in light-emitting diodes. Nanotechnology, 2013, 24, 505601.	1.3	2
79	Thin film solar cells based on the heterojunction of colloidal PbS quantum dots with CdS. Solar Energy Materials and Solar Cells, 2013, 117, 476-482.	3.0	64
80	Tuning Optical Properties of Si Quantum Dots by Ï€â€Conjugated Capping Molecules. Chemistry - an Asian Journal, 2013, 8, 653-664.	1.7	26
81	Unveiling Chemical Reactivity and Structural Transformation of Two-Dimensional Layered Nanocrystals. Journal of the American Chemical Society, 2013, 135, 3736-3739.	6.6	45
82	Lead Sulfide Nanocrystal Quantum Dot Solar Cells with Trenched ZnO Fabricated via Nanoimprinting. ACS Applied Materials & Interfaces, 2013, 5, 3803-3808.	4.0	21
83	Increased open-circuit voltage in a Schottky device using PbS quantum dots with extreme confinement. Applied Physics Letters, 2013, 102, .	1.5	23
84	Steric-Hindrance-Driven Shape Transition in PbS Quantum Dots: Understanding Size-Dependent Stability. Journal of the American Chemical Society, 2013, 135, 5278-5281.	6.6	301
85	Improvement in carrier transport properties by mild thermal annealing of PbS quantum dot solar cells. Applied Physics Letters, 2013, 102, .	1.5	48
86	Well-Defined Colloidal 2-D Layered Transition-Metal Chalcogenide Nanocrystals via Generalized Synthetic Protocols. Journal of the American Chemical Society, 2012, 134, 18233-18236.	6.6	224
87	Highly luminescing multi-shell semiconductor nanocrystals InP/ZnSe/ZnS. Applied Physics Letters, 2012, 101, 073107.	1.5	45
88	Design and synthesis of photostable multi-shell Cd-free nanocrystal quantum dots for LED applications. Journal of Materials Chemistry, 2012, 22, 21370.	6.7	17
89	Sensitivity and Selectivity on Aptamer-Based Assay: The Determination of Tetracycline Residue in Bovine Milk. Scientific World Journal, The, 2012, 2012, 1-10.	0.8	42
90	Successive and large-scale synthesis of InP/ZnS quantum dots in a hybrid reactor and their application to white LEDs. Nanotechnology, 2012, 23, 065602.	1.3	62

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91	Facile synthesis of uniform large-sized InP nanocrystal quantum dots using tris(tert-butyldimethylsilyl)phosphine. Nanoscale Research Letters, 2012, 7, 93.	3.1	57
92	InP Quantum Dot-Organosilicon Nanocomposites. Bulletin of the Korean Chemical Society, 2012, 33, 1491-1504.	1.0	12
93	Size dependent macrophage responses and toxicological effects of Ag nanoparticles. Chemical Communications, 2011, 47, 4382.	2.2	211
94	Efficient Quantum Dotâ˜Quantum Dot and Quantum Dotâ˜Dye Energy Transfer in Biotemplated Assemblies. ACS Nano, 2011, 5, 1761-1768.	7.3	33
95	Annealing effect of PbS quantum dot solar cells. , 2011, , .		1
96	Low-Temperature Annealing for Highly Conductive Lead Chalcogenide Quantum Dot Solids. Journal of Physical Chemistry C, 2011, 115, 607-612.	1.5	46
97	Ultrathin Zirconium Disulfide Nanodiscs. Journal of the American Chemical Society, 2011, 133, 7636-7639.	6.6	149
98	Transformative Two-Dimensional Layered Nanocrystals. Journal of the American Chemical Society, 2011, 133, 14500-14503.	6.6	58
99	Enhanced Photoluminance of Layered Quantum Dotâ€“Phosphor Nanocomposites as Converting Materials for Light Emitting Diodes. Journal of Physical Chemistry C, 2011, 115, 20945-20952.	1.5	52
100	Improved Performance of Nanocrystal Quantum Dots-Based LEDs by Modifying Hole Transport Layer. Journal of Nanoscience and Nanotechnology, 2011, 11, 432-436.	0.9	1
101	Photoenhancement of a Quantum Dot Nanocomposite via UV Annealing and its Application to White LEDs. Advanced Materials, 2011, 23, 911-914.	11.1	110
102	Synthesis and Characterization of Lead Selenide Nanocrystal Quantum Dots and Wires. Journal of Nanoscience and Nanotechnology, 2011, 11, 4347-4350.	0.9	3
103	Photocurrent Imaging of Nanocrystal Quantum Dots on Single-Walled Carbon Nanotube Device. Journal of Nanoscience and Nanotechnology, 2011, 11, 4300-4304.	0.9	1
104	Controlled assembly of CdSe/MWNT hybrid material and its fast photoresponse with wavelength selectivity. Nanotechnology, 2011, 22, 165201.	1.3	19
105	Effects of Curing Temperature on the Optical and Charge Trap Properties of InP Quantum Dot Thin Films. Bulletin of the Korean Chemical Society, 2011, 32, 263-272.	1.0	8
106	Functional Microscopy Tip Fabrication by an Electric Conductive Nanowire. Journal of Nanoscience and Nanotechnology, 2010, 10, 3207-3210.	0.9	0
107	Nanosilver Colloids-Filled Photonic Crystal Arrays for Photoluminescence Enhancement. Nanoscale Research Letters, 2010, 5, 1590-1595.	3.1	13
108	Efficient Electron Transfer in Functional Assemblies of Pyridine-Modified NQDs on SWNTs. ACS Nano, 2010, 4, 324-330.	7.3	45

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109	Highly efficient hybrid light-emitting device using complex of CdSe/ZnS quantum dots embedded in co-polymer as an active layer. Optics Express, 2010, 18, 18303.	1.7	25
110	Thermal behavior of a quantum dot nanocomposite as a color converting material and its application to white LED. Nanotechnology, 2010, 21, 495704.	1.3	54
111	Evaluation of Toxicity and Gene Expression Changes Triggered by Quantum Dots. Bulletin of the Korean Chemical Society, 2010, 31, 1555-1560.	1.0	17
112	Anomalous Circular Polarization of Photoluminescence Spectra of Individual CdSe Nanocrystals in an Applied Magnetic Field. Physical Review Letters, 2009, 102, 017402.	2.9	49
113	The Scaling of the Effective Band Gaps in Indiumâ^'Arsenide Quantum Dots and Wires. ACS Nano, 2008, 2, 1903-1913.	7.3	60
114	Linearly polarized â€˜fine structureâ€™ of the bright exciton state in individual CdSe nanocrystal quantum dots. Physical Review B, 2008, 77, .	1.1	51
115	Continuous Extraction of Highly Pure Metallic Single-Walled Carbon Nanotubes in a Microfluidic Channel. Nano Letters, 2008, 8, 4380-4385.	4.5	72
116	High-Efficiency Carrier Multiplication and Ultrafast Charge Separation in Semiconductor Nanocrystals Studied via Time-Resolved Photoluminescenceâ€. Journal of Physical Chemistry B, 2006, 110, 25332-25338.	1.2	184
117	Polymerization of Nanocrystal Quantum Dotâ€“Tubulin Bioconjugates. IEEE Transactions on Nanobioscience, 2006, 5, 239-245.	2.2	3
118	Effect of the Thiolâ^'Thiolate Equilibrium on the Photophysical Properties of Aqueous CdSe/ZnS Nanocrystal Quantum Dots. Journal of the American Chemical Society, 2005, 127, 10126-10127.	6.6	224