Sohee Jeong

List of Publications by Year
in descending order

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118	5,662	70961	82410
papers	citations	41 h-index	72 g-index

120	120	120	7883
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Chemistry of InP Nanocrystal Syntheses. Chemistry of Materials, 2016, 28, 2491-2506.	3.2	301
3	Highly Stable Cesium Lead Halide Perovskite Nanocrystals through in Situ Lead Halide Inorganic Passivation. Chemistry of Materials, 2017, 29, 7088-7092.	3.2	292
4	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
5	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
6	Size dependent macrophage responses and toxicological effects of Ag nanoparticles. Chemical Communications, 2011, 47, 4382.	2.2	211
7	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
8	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
9	Chemical Synthetic Strategy for Single-Layer Transition-Metal Chalcogenides. Journal of the American Chemical Society, 2014, 136, 14670-14673.	6.6	151
10	Ultrathin Zirconium Disulfide Nanodiscs. Journal of the American Chemical Society, 2011, 133, 7636-7639.	6.6	149
11	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
12	Tandem intercalation strategy for single-layer nanosheets as an effective alternative to conventional exfoliation processes. Nature Communications, 2015, 6, 5763.	5.8	137
13	Efficient hybrid colloidal quantum dot/organic solar cells mediated by near-infrared sensitizing small molecules. Nature Energy, 2019, 4, 969-976.	19.8	120
14	Photoenhancement of a Quantum Dot Nanocomposite via UV Annealing and its Application to White LEDs. Advanced Materials, 2011, 23, 911-914.	11.1	110
15	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
16	Halideâ€“Amine Coâ€Passivated Indium Phosphide Colloidal Quantum Dots in Tetrahedral Shape. Angewandte Chemie - International Edition, 2016, 55, 3714-3718.	7.2	102
17	Halideâ€“Amine Coâ€Passivated Indium Phosphide Colloidal Quantum Dots in Tetrahedral Shape. Angewandte Chemie, 2016, 128, 3778-3782.	1.6	82
18	IIIâ€“V colloidal nanocrystals: control of covalent surfaces. Chemical Science, 2020, 11, 913-922.	3.7	77

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19	Continuous Extraction of Highly Pure Metallic Single-Walled Carbon Nanotubes in a Microfluidic Channel. Nano Letters, 2008, 8, 4380-4385.	4.5	72
20	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
21	Air-Stable PbSe Nanocrystals Passivated by Phosphonic Acids. Journal of the American Chemical Society, 2016, 138, 876-883.	6.6	69
22	Energy level tuned indium arsenide colloidal quantum dot films for efficient photovoltaics. Nature Communications, 2018, 9, 4267.	5.8	67
23	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
24	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
25	The Scaling of the Effective Band Gaps in Indiumâ^'Arsenide Quantum Dots and Wires. ACS Nano, 2008, 2, 1903-1913.	7.3	60
26	Transformative Two-Dimensional Layered Nanocrystals. Journal of the American Chemical Society, 2011, 133, 14500-14503.	6.6	58
27	Facile synthesis of uniform large-sized InP nanocrystal quantum dots using tris(tert-butyldimethylsilyl)phosphine. Nanoscale Research Letters, 2012, 7, 93.	3.1	57
28	One-Step Deposition of Photovoltaic Layers Using Iodide Terminated PbS Quantum Dots. Journal of Physical Chemistry Letters, 2014, 5, 4002-4007.	2.1	57
29	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
30	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
31	Linearly polarized â€˜fine structureâ€™ of the bright exciton state in individual CdSe nanocrystal quantum dots. Physical Review B, 2008, 77, .	1.1	51
32	High Performance Colloidal Quantum Dot Photovoltaics by Controlling Protic Solvents in Ligand Exchange. Advanced Energy Materials, 2017, 7, 1700301.	10.2	51
33	Supersonically Spray-Coated Colloidal Quantum Dot Ink Solar Cells. Scientific Reports, 2017, 7, 622.	1.6	51
34	Anomalous Circular Polarization of Photoluminescence Spectra of Individual CdSe Nanocrystals in an Applied Magnetic Field. Physical Review Letters, 2009, 102, 017402.	2.9	49
35	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
36	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

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37	Improvement in carrier transport properties by mild thermal annealing of PbS quantum dot solar cells. Applied Physics Letters, 2013, 102, .	1.5	48
38	Low-Temperature Annealing for Highly Conductive Lead Chalcogenide Quantum Dot Solids. Journal of Physical Chemistry C, 2011, 115, 607-612.	1.5	46
39	Efficient Electron Transfer in Functional Assemblies of Pyridine-Modified NQDs on SWNTs. ACS Nano, 2010, 4, 324-330.	7.3	45
40	Highly luminescing multi-shell semiconductor nanocrystals InP/ZnSe/ZnS. Applied Physics Letters, 2012, 101, 073107.	1.5	45
41	Unveiling Chemical Reactivity and Structural Transformation of Two-Dimensional Layered Nanocrystals. Journal of the American Chemical Society, 2013, 135, 3736-3739.	6.6	45
42	Artificial stimulus-response system capable of conscious response. Science Advances, 2021, 7, .	4.7	44
43	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
44	Colloidal quantum dot based solar cells: from materials to devices. Nano Convergence, 2017, 4, 21.	6.3	41
45	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
46	Diffusion dynamics controlled colloidal synthesis of highly monodisperse InAs nanocrystals. Nature Communications, 2021, 12, 3013.	5.8	41
47	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
48	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
49	Efficient Quantum Dotâ"Quantum Dot and Quantum Dotâ"Dye Energy Transfer in Biotemplated Assemblies. ACS Nano, 2011, 5, 1761-1768.	7.3	33
50	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
51	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
52	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
53	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
54	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

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55	Graphene/PbS quantum dot hybrid structure for application in near-infrared photodetectors. Scientific Reports, 2020, 10, 12475.	1.6	28
56	Design Strategy of Quantum Dot Thinâ€Film Solar Cells. Small, 2020, 16, e2002460.	5.2	27
57	Tuning Optical Properties of Si Quantum Dots by Ï€â€Conjugated Capping Molecules. Chemistry - an Asian Journal, 2013, 8, 653-664.	1.7	26
58	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
59	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
60	Increased open-circuit voltage in a Schottky device using PbS quantum dots with extreme confinement. Applied Physics Letters, 2013, 102, .	1.5	23
61	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
62	Slow colloidal growth of PbSe nanocrystals for facile morphology and size control. RSC Advances, 2014, 4, 9842.	1.7	22
63	Synthesis of colloidal InSb nanocrystals via in situ activation of InCl₃. Dalton Transactions, 2015, 44, 16923-16928.	1.6	22
64	Long-term stability of CdSe/CdZnS quantum dot encapsulated in a multi-lamellar microcapsule. Nanotechnology, 2015, 26, 275602.	1.3	22
65	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
66	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
67	Continuous Purification of Colloidal Quantum Dots in Large-Scale Using Porous Electrodes in Flow Channel. Scientific Reports, 2017, 7, 43581.	1.6	22
68	Lead Sulfide Nanocrystal Quantum Dot Solar Cells with Trenched ZnO Fabricated via Nanoimprinting. ACS Applied Materials & Interfaces, 2013, 5, 3803-3808.	4.0	21
69	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
70	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
71	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
72	Enhancement of Hot Electron Flow in Plasmonic Nanodiodes by Incorporating PbS Quantum Dots. ACS Applied Materials & Interfaces, 2018, 10, 5081-5089.	4.0	20

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73	Controlled assembly of CdSe/MWNT hybrid material and its fast photoresponse with wavelength selectivity. Nanotechnology, 2011, 22, 165201.	1.3	19
74	All-solution-processed PbS quantum dot solar modules. Nanoscale, 2015, 7, 8829-8834.	2.8	19
75	Revisiting Effects of Ligand-Capped Nanocrystals in Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 1032-1034.	8.8	19
76	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
77	Space charge limited conduction in ultrathin PbS quantum dot solid diodes. Journal of Applied Physics, 2014, 115, .	1.1	17
78	A Colloidalâ€Quantumâ€Dotâ€Based Selfâ€Charging System via the Nearâ€Infrared Band. Advanced Materials, 2018, 30, e1707224.	11.1	17
79	Tailored growth of single-crystalline InP tetrapods. Nature Communications, 2021, 12, 4454.	5.8	17
80	Evaluation of Toxicity and Gene Expression Changes Triggered by Quantum Dots. Bulletin of the Korean Chemical Society, 2010, 31, 1555-1560.	1.0	17
81	Determination of heterojunction band offsets between CdS bulk and PbS quantum dots using photoelectron spectroscopy. Applied Physics Letters, 2014, 105, 131604.	1.5	16
82	Fabrication of periodic nanoparticle clusters using a soft lithographic template. Journal of Materials Chemistry C, 2015, 3, 4598-4602.	2.7	16
83	Facetâ€Specific Ligand Interactions on Ternary AgSbS₂ Colloidal Quantum Dots. Chemistry - A European Journal, 2017, 23, 17707-17713.	1.7	16
84	Continuous flow purification of nanocrystal quantum dots. Nanoscale, 2014, 6, 14467-14472.	2.8	15
85	Origin of photoluminescence from colloidal gallium phosphide nanocrystals synthesized via a hot-injection method. RSC Advances, 2015, 5, 2466-2469.	1.7	15
86	Environmentally benign nanocrystals: challenges and future directions. Journal of Information Display, 2019, 20, 61-72.	2.1	15
87	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
88	Hysteresis and Photoinstability Caused by Mobile Ions in Colloidal Quantum Dot Photovoltaics. Journal of Physical Chemistry Letters, 2017, 8, 5259-5263.	2.1	14
89	Chargeâ€Selective, Narrowâ€Gap Indium Arsenide Quantum Dot Layer for Highly Stable and Efficient Organic Photovoltaics. Advanced Energy Materials, 2022, 12, .	10.2	14
90	Nanosilver Colloids-Filled Photonic Crystal Arrays for Photoluminescence Enhancement. Nanoscale Research Letters, 2010, 5, 1590-1595.	3.1	13

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91	Tip-Induced Strain Engineering of a Single Metal Halide Perovskite Quantum Dot. ACS Nano, 2021, 15, 9057-9064.	7.3	13
92	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
93	InP Quantum Dot-Organosilicon Nanocomposites. Bulletin of the Korean Chemical Society, 2012, 33, 1491-1504.	1.0	12
94	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
95	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
96	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
97	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
98	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
99	Shapeâ€Tuned Multiphotonâ€Emitting InP Nanotetrapods. Advanced Materials, 2022, 34, e2110665.	11.1	8
100	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
101	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
102	Oxygen aided photoresponse enhancement of air-stable PbSe quantum dot based photoconductors. Optical Materials Express, 2017, 7, 2905.	1.6	5
103	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
104	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
105	Energetic Sulfide Vaporâ€Processed Colloidal InAs Quantum Dot Solids for Efficient Charge Transport and Photoconduction. Advanced Photonics Research, 2022, 3, .	1.7	4
106	Polymerization of Nanocrystal Quantum Dotâ€“Tubulin Bioconjugates. IEEE Transactions on Nanobioscience, 2006, 5, 239-245.	2.2	3
107	Synthesis and Characterization of Lead Selenide Nanocrystal Quantum Dots and Wires. Journal of Nanoscience and Nanotechnology, 2011, 11, 4347-4350.	0.9	3
108	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

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109	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
110	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
111	Annealing effect of PbS quantum dot solar cells. , 2011, , .		1
112	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
113	Photocurrent Imaging of Nanocrystal Quantum Dots on Single-Walled Carbon Nanotube Device. Journal of Nanoscience and Nanotechnology, 2011, 11, 4300-4304.	0.9	1
114	Ultimate Charge Extraction of Monolayer PbS Quantum Dot for Observation of Multiple Exciton Generation. ChemPhysChem, 2019, 20, 2657-2661.	1.0	1
115	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
116	Functional Microscopy Tip Fabrication by an Electric Conductive Nanowire. Journal of Nanoscience and Nanotechnology, 2010, 10, 3207-3210.	0.9	0
117	Facet-Specific Ligand Interactions on Ternary AgSbS2 Colloidal Quantum Dots.. Chemistry - A European Journal, 2017, 23, 17625-17625.	1.7	0
118	Shapeâ€Tuned Multiphotonâ€Emitting InP Nanotetrapods (Adv. Mater. 19/2022). Advanced Materials, 2022, 34, .	11.1	0