

# 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	Steric-Hindrance-Driven Shape Transition in PbS Quantum Dots: Understanding Size-Dependent Stability. <i>Journal of the American Chemical Society</i> , 2013, 135, 5278-5281.	6.6	301
2	Chemistry of InP Nanocrystal Syntheses. <i>Chemistry of Materials</i> , 2016, 28, 2491-2506.	3.2	301
3	Highly Stable Cesium Lead Halide Perovskite Nanocrystals through in Situ Lead Halide Inorganic Passivation. <i>Chemistry of Materials</i> , 2017, 29, 7088-7092.	3.2	292
4	Effect of the Thiol~Thiolate Equilibrium on the Photophysical Properties of Aqueous CdSe/ZnS Nanocrystal Quantum Dots. <i>Journal of the American Chemical Society</i> , 2005, 127, 10126-10127.	6.6	224
5	Well-Defined Colloidal 2-D Layered Transition-Metal Chalcogenide Nanocrystals via Generalized Synthetic Protocols. <i>Journal of the American Chemical Society</i> , 2012, 134, 18233-18236.	6.6	224
6	Size dependent macrophage responses and toxicological effects of Ag nanoparticles. <i>Chemical Communications</i> , 2011, 47, 4382.	2.2	211
7	High-Efficiency Carrier Multiplication and Ultrafast Charge Separation in Semiconductor Nanocrystals Studied via Time-Resolved Photoluminescence~. <i>Journal of Physical Chemistry B</i> , 2006, 110, 25332-25338.	1.2	184
8	Ultrastable PbSe Nanocrystal Quantum Dots via <i>in Situ</i> Formation of Atomically Thin Halide Adlayers on PbSe(100). <i>Journal of the American Chemical Society</i> , 2014, 136, 8883-8886.	6.6	172
9	Chemical Synthetic Strategy for Single-Layer Transition-Metal Chalcogenides. <i>Journal of the American Chemical Society</i> , 2014, 136, 14670-14673.	6.6	151
10	Ultrathin Zirconium Disulfide Nanodiscs. <i>Journal of the American Chemical Society</i> , 2011, 133, 7636-7639.	6.6	149
11	Colloidal Synthesis of Single-Layer MSe<sub>2</sub> (M = Mo, W) Nanosheets via Anisotropic Solution-Phase Growth Approach. <i>Journal of the American Chemical Society</i> , 2015, 137, 7266-7269.	6.6	147
12	Tandem intercalation strategy for single-layer nanosheets as an effective alternative to conventional exfoliation processes. <i>Nature Communications</i> , 2015, 6, 5763.	5.8	137
13	Efficient hybrid colloidal quantum dot/organic solar cells mediated by near-infrared sensitizing small molecules. <i>Nature Energy</i> , 2019, 4, 969-976.	19.8	120
14	Photoenhancement of a Quantum Dot Nanocomposite via UV Annealing and its Application to White LEDs. <i>Advanced Materials</i> , 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. <i>ACS Nano</i> , 2015, 9, 8157-8164.	7.3	103
16	Halide~Amine Co~Passivated Indium Phosphide Colloidal Quantum Dots in Tetrahedral Shape. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 3714-3718.	7.2	102
17	Halide~Amine Co~Passivated Indium Phosphide Colloidal Quantum Dots in Tetrahedral Shape. <i>Angewandte Chemie</i> , 2016, 128, 3778-3782.	1.6	82
18	III~V colloidal nanocrystals: control of covalent surfaces. <i>Chemical Science</i> , 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. <i>Nano Letters</i> , 2008, 8, 4380-4385.	4.5	72
20	Role of Surface States in Photocatalysis: Study of Chlorine-Passivated CdSe Nanocrystals for Photocatalytic Hydrogen Generation. <i>Chemistry of Materials</i> , 2016, 28, 962-968.	3.2	71
21	Air-Stable PbSe Nanocrystals Passivated by Phosphonic Acids. <i>Journal of the American Chemical Society</i> , 2016, 138, 876-883.	6.6	69
22	Energy level tuned indium arsenide colloidal quantum dot films for efficient photovoltaics. <i>Nature Communications</i> , 2018, 9, 4267.	5.8	67
23	Thin film solar cells based on the heterojunction of colloidal PbS quantum dots with CdS. <i>Solar Energy Materials and Solar Cells</i> , 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. <i>Nanotechnology</i> , 2012, 23, 065602.	1.3	62
25	The Scaling of the Effective Band Gaps in Indium <sup>III</sup> Arsenide Quantum Dots and Wires. <i>ACS Nano</i> , 2008, 2, 1903-1913.	7.3	60
26	Transformative Two-Dimensional Layered Nanocrystals. <i>Journal of the American Chemical Society</i> , 2011, 133, 14500-14503.	6.6	58
27	Facile synthesis of uniform large-sized InP nanocrystal quantum dots using tris(tert-butyl dimethylsilyl)phosphine. <i>Nanoscale Research Letters</i> , 2012, 7, 93.	3.1	57
28	One-Step Deposition of Photovoltaic Layers Using Iodide Terminated PbS Quantum Dots. <i>Journal of Physical Chemistry Letters</i> , 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. <i>Nanotechnology</i> , 2010, 21, 495704.	1.3	54
30	Enhanced Photoluminance of Layered Quantum Dot <sup>II</sup> Phosphor Nanocomposites as Converting Materials for Light Emitting Diodes. <i>Journal of Physical Chemistry C</i> , 2011, 115, 20945-20952.	1.5	52
31	Linearly polarized $\tilde{\epsilon}$ fine structure <sup>TM</sup> of the bright exciton state in individual CdSe nanocrystal quantum dots. <i>Physical Review B</i> , 2008, 77, .	1.1	51
32	High Performance Colloidal Quantum Dot Photovoltaics by Controlling Protic Solvents in Ligand Exchange. <i>Advanced Energy Materials</i> , 2017, 7, 1700301.	10.2	51
33	Supersonically Spray-Coated Colloidal Quantum Dot Ink Solar Cells. <i>Scientific Reports</i> , 2017, 7, 622.	1.6	51
34	Anomalous Circular Polarization of Photoluminescence Spectra of Individual CdSe Nanocrystals in an Applied Magnetic Field. <i>Physical Review Letters</i> , 2009, 102, 017402.	2.9	49
35	Colloidal Single-Layer Quantum Dots with Lateral Confinement Effects on 2D Exciton. <i>Journal of the American Chemical Society</i> , 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. <i>Chemistry of Materials</i> , 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. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	48
38	Low-Temperature Annealing for Highly Conductive Lead Chalcogenide Quantum Dot Solids. <i>Journal of Physical Chemistry C</i> , 2011, 115, 607-612.	1.5	46
39	Efficient Electron Transfer in Functional Assemblies of Pyridine-Modified NQDs on SWNTs. <i>ACS Nano</i> , 2010, 4, 324-330.	7.3	45
40	Highly luminescing multi-shell semiconductor nanocrystals InP/ZnSe/ZnS. <i>Applied Physics Letters</i> , 2012, 101, 073107.	1.5	45
41	Unveiling Chemical Reactivity and Structural Transformation of Two-Dimensional Layered Nanocrystals. <i>Journal of the American Chemical Society</i> , 2013, 135, 3736-3739.	6.6	45
42	Artificial stimulus-response system capable of conscious response. <i>Science Advances</i> , 2021, 7, .	4.7	44
43	Sensitivity and Selectivity on Aptamer-Based Assay: The Determination of Tetracycline Residue in Bovine Milk. <i>Scientific World Journal</i> , The, 2012, 2012, 1-10.	0.8	42
44	Colloidal quantum dot based solar cells: from materials to devices. <i>Nano Convergence</i> , 2017, 4, 21.	6.3	41
45	A hydro/oxo-phobic top hole-selective layer for efficient and stable colloidal quantum dot solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 2078-2084.	15.6	41
46	Diffusion dynamics controlled colloidal synthesis of highly monodisperse InAs nanocrystals. <i>Nature Communications</i> , 2021, 12, 3013.	5.8	41
47	Analysis and characterization of iron pyrite nanocrystals and nanocrystalline thin films derived from bromide anion synthesis. <i>Journal of Materials Chemistry A</i> , 2015, 3, 6853-6861.	5.2	36
48	A Review on Eco-Friendly Quantum Dot Solar Cells: Materials and Manufacturing Processes. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2018, 5, 349-358.	2.7	36
49	Efficient Quantum Dot <sup>2+</sup> Quantum Dot and Quantum Dot <sup>2+</sup> Dye Energy Transfer in Biotemplated Assemblies. <i>ACS Nano</i> , 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. <i>Journal of Physical Chemistry Letters</i> , 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. <i>Nanoscale</i> , 2015, 7, 17473-17481.	2.8	31
52	Efficiency Limit of Colloidal Quantum Dot Solar Cells: Effect of Optical Interference on Active Layer Absorption. <i>ACS Energy Letters</i> , 2020, 5, 248-251.	8.8	30
53	PbS Quantum Dot Solar Cells Integrated with Sol <sup>2+</sup> Gel-Derived ZnO as an n-Type Charge-Selective Layer. <i>Journal of Physical Chemistry C</i> , 2014, 118, 17374-17382.	1.5	28
54	A Resonance <sup>2+</sup> Shifting Hybrid n <sup>2+</sup> Type Layer for Boosting Near <sup>2+</sup> Infrared Response in Highly Efficient Colloidal Quantum Dots Solar Cells. <i>Advanced Materials</i> , 2015, 27, 8102-8108.	11.1	28

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55	Graphene/PbS quantum dot hybrid structure for application in near-infrared photodetectors. <i>Scientific Reports</i> , 2020, 10, 12475.	1.6	28
56	Design Strategy of Quantum Dot Thin-Film Solar Cells. <i>Small</i> , 2020, 16, e2002460.	5.2	27
57	Tuning Optical Properties of Si Quantum Dots by $\pi$ -Conjugated Capping Molecules. <i>Chemistry - an Asian Journal</i> , 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. <i>Optics Express</i> , 2010, 18, 18303.	1.7	25
59	Size Dependence of Excitation-Energy-Related Surface Trapping Dynamics in PbS Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2015, 119, 7517-7524.	1.5	25
60	Increased open-circuit voltage in a Schottky device using PbS quantum dots with extreme confinement. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	23
61	Inverted Schottky quantum dot solar cells with enhanced carrier extraction and air-stability. <i>Journal of Materials Chemistry A</i> , 2014, 2, 20799-20805.	5.2	22
62	Slow colloidal growth of PbSe nanocrystals for facile morphology and size control. <i>RSC Advances</i> , 2014, 4, 9842.	1.7	22
63	Synthesis of colloidal InSb nanocrystals via in situ activation of $\text{InCl}_3$ . <i>Dalton Transactions</i> , 2015, 44, 16923-16928.	1.6	22
64	Long-term stability of CdSe/CdZnS quantum dot encapsulated in a multi-lamellar microcapsule. <i>Nanotechnology</i> , 2015, 26, 275602.	1.3	22
65	Atomic layer deposition effect on the electrical properties of $\text{Al}_2\text{O}_3$ -passivated PbS quantum dot field-effect transistors. <i>Applied Physics Letters</i> , 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. <i>Applied Surface Science</i> , 2016, 379, 467-473.	3.1	22
67	Continuous Purification of Colloidal Quantum Dots in Large-Scale Using Porous Electrodes in Flow Channel. <i>Scientific Reports</i> , 2017, 7, 43581.	1.6	22
68	Lead Sulfide Nanocrystal Quantum Dot Solar Cells with Trenched ZnO Fabricated via Nanoimprinting. <i>ACS Applied Materials &amp; Interfaces</i> , 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. <i>Journal of Materials Chemistry A</i> , 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. <i>Solar Energy Materials and Solar Cells</i> , 2014, 126, 163-169.	3.0	20
71	Electronic Structure of PbS Colloidal Quantum Dots on Indium Tin Oxide and Titanium Oxide. <i>Journal of Physical Chemistry C</i> , 2014, 118, 27884-27889.	1.5	20
72	Enhancement of Hot Electron Flow in Plasmonic Nanodiodes by Incorporating PbS Quantum Dots. <i>ACS Applied Materials &amp; Interfaces</i> , 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. <i>Nanotechnology</i> , 2011, 22, 165201.	1.3	19
74	All-solution-processed PbS quantum dot solar modules. <i>Nanoscale</i> , 2015, 7, 8829-8834.	2.8	19
75	Revisiting Effects of Ligand-Capped Nanocrystals in Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2020, 5, 1032-1034.	8.8	19
76	Design and synthesis of photostable multi-shell Cd-free nanocrystal quantum dots for LED applications. <i>Journal of Materials Chemistry</i> , 2012, 22, 21370.	6.7	17
77	Space charge limited conduction in ultrathin PbS quantum dot solid diodes. <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	17
78	A Colloidal Quantum Dot-Based Self-Charging System via the Near-Infrared Band. <i>Advanced Materials</i> , 2018, 30, e1707224.	11.1	17
79	Tailored growth of single-crystalline InP tetrapods. <i>Nature Communications</i> , 2021, 12, 4454.	5.8	17
80	Evaluation of Toxicity and Gene Expression Changes Triggered by Quantum Dots. <i>Bulletin of the Korean Chemical Society</i> , 2010, 31, 1555-1560.	1.0	17
81	Determination of heterojunction band offsets between CdS bulk and PbS quantum dots using photoelectron spectroscopy. <i>Applied Physics Letters</i> , 2014, 105, 131604.	1.5	16
82	Fabrication of periodic nanoparticle clusters using a soft lithographic template. <i>Journal of Materials Chemistry C</i> , 2015, 3, 4598-4602.	2.7	16
83	Facet-Specific Ligand Interactions on Ternary AgSbS <sub>2</sub> Colloidal Quantum Dots. <i>Chemistry - A European Journal</i> , 2017, 23, 17707-17713.	1.7	16
84	Continuous flow purification of nanocrystal quantum dots. <i>Nanoscale</i> , 2014, 6, 14467-14472.	2.8	15
85	Origin of photoluminescence from colloidal gallium phosphide nanocrystals synthesized via a hot-injection method. <i>RSC Advances</i> , 2015, 5, 2466-2469.	1.7	15
86	Environmentally benign nanocrystals: challenges and future directions. <i>Journal of Information Display</i> , 2019, 20, 61-72.	2.1	15
87	Improvement of the quality of gluten-free rice pound cake using extruded rice flour. <i>Food Science and Biotechnology</i> , 2013, 22, 173-180.	1.2	14
88	Hysteresis and Photoinstability Caused by Mobile Ions in Colloidal Quantum Dot Photovoltaics. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5259-5263.	2.1	14
89	Charge-Selective, Narrow-Gap Indium Arsenide Quantum Dot Layer for Highly Stable and Efficient Organic Photovoltaics. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	14
90	Nanosilver Colloids-Filled Photonic Crystal Arrays for Photoluminescence Enhancement. <i>Nanoscale Research Letters</i> , 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 TiO <sub>2</sub> 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 (CsPbBr <sub>3</sub> ) 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	Shape-Tuned Multiphoton-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 CaSrSiO <sub>4</sub> :Eu <sup>3+</sup> 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 Vapor-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 Dot-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. <i>Nanotechnology</i> , 2013, 24, 505601.	1.3	2
110	AC-dielectrophoretic force assisted fabrication of conducting quantum dot aggregates in the electrical breakdown-induced CNT nanogap. <i>Applied Physics Letters</i> , 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. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 432-436.	0.9	1
113	Photocurrent Imaging of Nanocrystal Quantum Dots on Single-Walled Carbon Nanotube Device. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 4300-4304.	0.9	1
114	Ultimate Charge Extraction of Monolayer PbS Quantum Dot for Observation of Multiple Exciton Generation. <i>ChemPhysChem</i> , 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. <i>Journal of the Korean Chemical Society</i> , 2016, 60, 402-409.	0.2	1
116	Functional Microscopy Tip Fabrication by an Electric Conductive Nanowire. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 3207-3210.	0.9	0
117	Facet-Specific Ligand Interactions on Ternary AgSbS <sub>2</sub> Colloidal Quantum Dots.. <i>Chemistry - A European Journal</i> , 2017, 23, 17625-17625.	1.7	0
118	Shape-Tuned Multiphoton-Emitting InP Nanotetrapods (Adv. Mater. 19/2022). <i>Advanced Materials</i> , 2022, 34, .	11.1	0