

# Zhengtao Deng

## List of Publications by Year in descending order

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80  
papers

8,763  
citations

57758

44  
h-index

56724

83  
g-index

86  
all docs

86  
docs citations

86  
times ranked

11905  
citing authors

#	ARTICLE	IF	CITATIONS
1	DNA Origami with Complex Curvatures in Three-Dimensional Space. <i>Science</i> , 2011, 332, 342-346.	12.6	1,074
2	Ligand-Mediated Synthesis of Shape-Controlled Cesium Lead Halide Perovskite Nanocrystals via Reprecipitation Process at Room Temperature. <i>ACS Nano</i> , 2016, 10, 3648-3657.	14.6	905
3	Gold Nanoparticle Self-Similar Chain Structure Organized by DNA Origami. <i>Journal of the American Chemical Society</i> , 2010, 132, 3248-3249.	13.7	502
4	In Situ Passivation of PbBr <sub>6</sub> <sup>4-</sup> Octahedra toward Blue Luminescent CsPbBr <sub>3</sub> Nanoplatelets with Near 100% Absolute Quantum Yield. <i>ACS Energy Letters</i> , 2018, 3, 2030-2037.	17.4	402
5	Strong underwater adhesives made by self-assembling multi-protein nanofibres. <i>Nature Nanotechnology</i> , 2014, 9, 858-866.	31.5	370
6	Synthesis and patterning of tunable multiscale materials with engineered cells. <i>Nature Materials</i> , 2014, 13, 515-523.	27.5	329
7	Controlled Synthesis of Lead-Free and Stable Perovskite Derivative Cs <sub>2</sub> SnI <sub>6</sub> Nanocrystals via a Facile Hot-Injection Process. <i>Chemistry of Materials</i> , 2016, 28, 8132-8140.	6.7	310
8	A New Route to Zinc-Blende CdSe Nanocrystals: Mechanism and Synthesis. <i>Journal of Physical Chemistry B</i> , 2005, 109, 16671-16675.	2.6	285
9	DNA-Directed Self-Assembly of Discrete Silver Nanoparticle Architectures. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 2700-2704.	13.8	278
10	DNA Directed Self-Assembly of Anisotropic Plasmonic Nanostructures. <i>Journal of the American Chemical Society</i> , 2011, 133, 17606-17609.	13.7	214
11	All-Inorganic Quantum Dot LEDs Based on a Phase-Stabilized CsPbI <sub>3</sub> Perovskite. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16164-16170.	13.8	210
12	Solution Synthesis of Ultrathin Single-Crystalline SnS Nanoribbons for Photodetectors via Phase Transition and Surface Processing. <i>ACS Nano</i> , 2012, 6, 6197-6207.	14.6	193
13	From Bulk Metal Bi to Two-Dimensional Well-Crystallized BiOX (X = Cl, Br) Micro- and Nanostructures: Synthesis and Characterization. <i>Crystal Growth and Design</i> , 2008, 8, 2995-3003.	3.0	172
14	Green and Orange CdTe Quantum Dots as Effective pH-Sensitive Fluorescent Probes for Dual Simultaneous and Independent Detection of Viruses. <i>Journal of Physical Chemistry B</i> , 2007, 111, 12024-12031.	2.6	162
15	Controlled Synthesis of Lead-Free Cesium Tin Halide Perovskite Cubic Nanocages with High Stability. <i>Chemistry of Materials</i> , 2017, 29, 6493-6501.	6.7	133
16	High-Quality Manganese-Doped Zinc Sulfide Quantum Rods with Tunable Dual-Color and Multiphoton Emissions. <i>Journal of the American Chemical Society</i> , 2011, 133, 5389-5396.	13.7	132
17	Band Gap Engineering of Quaternary-Alloyed ZnCdSSe Quantum Dots via a Facile Phosphine-Free Colloidal Method. <i>Journal of the American Chemical Society</i> , 2009, 131, 17744-17745.	13.7	127
18	Water-Based Route to Ligand-Selective Synthesis of ZnSe and Cd-Doped ZnSe Quantum Dots with Tunable Ultraviolet A to Blue Photoluminescence. <i>Langmuir</i> , 2009, 25, 434-442.	3.5	119

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19	Aqueous Synthesis of Zinc Blende CdTe/CdS Magic-Core/Thick-Shell Tetrahedral-Shaped Nanocrystals with Emission Tunable to Near-Infrared. <i>Journal of the American Chemical Society</i> , 2010, 132, 5592-5593.	13.7	114
20	Magnetic and fluorescent multifunctional chitosan nanoparticles as a smart drug delivery system. <i>Nanotechnology</i> , 2007, 18, 405102.	2.6	111
21	Porous Cu Nanowire Aerosponges from One-Step Assembly and their Applications in Heat Dissipation. <i>Advanced Materials</i> , 2016, 28, 1413-1419.	21.0	109
22	Aqueous acid-based synthesis of lead-free tin halide perovskites with near-unity photoluminescence quantum efficiency. <i>Chemical Science</i> , 2019, 10, 4573-4579.	7.4	109
23	Robust DNA-Functionalized Core/Shell Quantum Dots with Fluorescent Emission Spanning from UV-vis to Near-IR and Compatible with DNA-Directed Self-Assembly. <i>Journal of the American Chemical Society</i> , 2012, 134, 17424-17427.	13.7	108
24	Biomimetic Bipolar Microcapsules Derived from <i>Staphylococcus aureus</i> for Enhanced Properties of Lithium-Sulfur Battery Cathodes. <i>Advanced Energy Materials</i> , 2018, 8, 1702373.	19.5	106
25	Photo-oxidative degradation of methylammonium lead iodide perovskite: mechanism and protection. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2275-2282.	10.3	105
26	Alkyl-Thiol Ligand-Induced Shape- and Crystalline Phase-Controlled Synthesis of Stable Perovskite-Related CsPb <sub>2</sub> Br <sub>5</sub> Nanocrystals at Room Temperature. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 3853-3860.	4.6	100
27	Aqueous Synthesis of Glutathione-Capped CdTe/CdS/ZnS and CdTe/CdSe/ZnS Core/Shell/Shell Nanocrystal Heterostructures. <i>Langmuir</i> , 2012, 28, 8205-8215.	3.5	98
28	A Simple Solution Route to Single-Crystalline Sb <sub>2</sub> O <sub>3</sub> Nanowires with Rectangular Cross Sections. <i>Journal of Physical Chemistry B</i> , 2006, 110, 18225-18230.	2.6	95
29	Site-Specific Synthesis and In Situ Immobilization of Fluorescent Silver Nanoclusters on DNA Nanoscaffolds by Use of the Tollens Reaction. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 4176-4179.	13.8	94
30	Synthesis of highly fluorescent InP/ZnS small-core/thick-shell tetrahedral-shaped quantum dots for blue light-emitting diodes. <i>Journal of Materials Chemistry C</i> , 2017, 5, 8243-8249.	5.5	93
31	Controlled Synthesis of Composition Tunable Formamidinium Cesium Double Cation Lead Halide Perovskite Nanowires and Nanosheets with Improved Stability. <i>Chemistry of Materials</i> , 2017, 29, 2157-2166.	6.7	82
32	Colloidal synthesis of metastable zinc-blende IV-VI SnS nanocrystals with tunable sizes. <i>Nanoscale</i> , 2011, 3, 4346.	5.6	81
33	Orientated Attachment Assisted Self-Assembly of Sb <sub>2</sub> O <sub>3</sub> Nanorods and Nanowires: End-to-End versus Side-by-Side. <i>Journal of Physical Chemistry C</i> , 2007, 111, 5325-5330.	3.1	79
34	Simple Colloidal Synthesis of Single-Crystal Sb <sub>2</sub> Se <sub>3</sub> Nanotubes with Composition Dependent Band-Gap Energy in the Near-Infrared. <i>Nano Letters</i> , 2009, 9, 2015-2020.	9.1	77
35	Strong blue photoluminescence from single-crystalline bismuth oxychloride nanoplates. <i>Nanotechnology</i> , 2008, 19, 295705.	2.6	75
36	Stable and Bright Pyridine Manganese Halides for Efficient White Light-Emitting Diodes. <i>Advanced Functional Materials</i> , 2021, 31, 2011191.	14.9	70

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37	Direct Hot-Injection Synthesis of Lead Halide Perovskite Nanocubes in Acrylic Monomers for Ultrastable and Bright Nanocrystal-Polymer Composite Films. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 9317-9325.	8.0	67
38	Efficient and Stable Thin-Film Luminescent Solar Concentrators Enabled by Near-Infrared Emission Perovskite Nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 7738-7742.	13.8	64
39	Stable and conductive lead halide perovskites facilitated by X-type ligands. <i>Nanoscale</i> , 2017, 9, 7252-7259.	5.6	62
40	Using cadmium telluride quantum dots as a proton flux sensor and applying to detect H9 avian influenza virus. <i>Analytical Biochemistry</i> , 2007, 364, 122-127.	2.4	57
41	Controlled Colloidal Growth of Ultrathin Single-Crystal ZnS Nanowires with a Magic-Size Diameter. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 8695-8698.	13.8	57
42	Reversible light-mediated compositional and structural transitions between CsPbBr <sub>3</sub> and CsPb <sub>2</sub> Br <sub>5</sub> nanosheets. <i>Chemical Communications</i> , 2018, 54, 2804-2807.	4.1	54
43	Synthesis of two-dimensional single-crystal berzelianite nanosheets and nanoplates with near-infrared optical absorption. <i>Journal of Materials Chemistry</i> , 2009, 19, 6201.	6.7	46
44	Fabrication of highly emissive and highly stable perovskite nanocrystal-polymer slabs for luminescent solar concentrators. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4872-4880.	10.3	45
45	Synthesis and purple-blue emission of antimony trioxide single-crystalline nanobelts with elliptical cross section. <i>Nano Research</i> , 2009, 2, 151-160.	10.4	42
46	Quantum Efficiency Modification of Organic Fluorophores Using Gold Nanoparticles on DNA Origami Scaffolds. <i>Journal of Physical Chemistry C</i> , 2013, 117, 12735-12744.	3.1	40
47	Realizing 17.0% external quantum efficiency in red quantum dot light-emitting diodes by pursuing the ideal inkjet-printed film and interface. <i>Organic Electronics</i> , 2019, 73, 247-254.	2.6	40
48	A New Route to Self-Assembled Tin Dioxide Nanospheres: Fabrication and Characterization. <i>Langmuir</i> , 2008, 24, 11089-11095.	3.5	39
49	Fine-tuning the metallic core-shell nanostructures for plasmonic perovskite solar cells. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	32
50	A perspective on functionalizing colloidal quantum dots with DNA. <i>Nano Research</i> , 2013, 6, 853-870.	10.4	31
51	Ligand-mediated synthesis of compositionally related cesium lead halide CsPb <sub>2</sub> X <sub>5</sub> nanowires with improved stability. <i>Nanoscale</i> , 2018, 10, 7658-7665.	5.6	30
52	New Method to Single-Crystal Micrometer-Sized Ultra-Thin Silver Nanosheets: Synthesis and Characterization. <i>Journal of Physical Chemistry C</i> , 2009, 113, 867-873.	3.1	29
53	Lead-free Mn-doped antimony halide perovskite quantum dots with bright deep-red emission. <i>Chemical Communications</i> , 2021, 57, 2677-2680.	4.1	25
54	Infrared emitting quantum dots: DNA conjugation and DNA origami directed self-assembly. <i>Nanoscale</i> , 2014, 6, 4486-4490.	5.6	24

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55	Highly Emissive and Color-Tunable Perovskite Cross-linkers for Luminescent Polymer Networks. ACS Applied Materials & Interfaces, 2018, 10, 28971-28978.	8.0	20
56	Controlled synthesis of zero-dimensional phase-pure Cs <sub>4</sub> PbBr <sub>6</sub> perovskites crystals with high photoluminescence quantum yield. Journal of Alloys and Compounds, 2019, 797, 1151-1156.	5.5	20
57	Alkylamine screening and zinc doping of highly luminescent 2D tin-halide perovskites for LED lighting. Materials Advances, 2021, 2, 1320-1327.	5.4	20
58	DNA functionalization of colloidal II-VI semiconductor nanowires for multiplex nanoheterostructures. Chemical Science, 2013, 4, 2234.	7.4	18
59	Quench-resistant and stable nanocarbon dot/sheet emitters with tunable solid-state fluorescence <i>via</i> aggregation-induced color switching. Nanoscale, 2019, 11, 2131-2137.	5.6	18
60	Three-dimensional structure of CdX (X=Se,Te) nanocrystals by total x-ray diffraction. Journal of Applied Physics, 2007, 102, 044304.	2.5	17
61	Precursor Tailoring Enables Alkylammonium Tin Halide Perovskite Phosphors for Solid-State Lighting. Advanced Functional Materials, 2022, 32, .	14.9	17
62	Colloidal synthesis of monolayer-thick formamidinium lead bromide perovskite nanosheets with a lateral size of micrometers. Chemical Communications, 2018, 54, 4021-4024.	4.1	14
63	Precise, sensitive, and reversible thermochromic luminescent sensing facilitated <i>via</i> bright high-temperature luminescent PEAMnBr <sub>x</sub> (x = 0/1/2/3). Journal of Materials Chemistry C, 2021, 9, 2729-2737.	5.5	12
64	Enhanced stability and performance of light-emitting diodes based on <i>in situ</i> fabricated FAPbBr <sub>3</sub> nanocrystals <i>via</i> ligand compensation with <i>n</i>-octylphosphonic acid. Journal of Materials Chemistry C, 2020, 8, 9936-9944.	5.5	11
65	Spherical hexagonal tellurium nanocrystals: fabrication and size-dependent structural phase transition at high pressure. Nanotechnology, 2008, 19, 045707.	2.6	9
66	Self-Healing Self-Assembly of Aspect-Ratio-Tunable Chloroplast-Shaped Architectures. Crystal Growth and Design, 2009, 9, 4745-4751.	3.0	9
67	Growth of Single-Crystal Double-Directional Tellurium Nanoneedles from CdTe Nanocrystals in Solution. Crystal Growth and Design, 2009, 9, 1823-1828.	3.0	9
68	A general approach to realizing perovskite nanocrystals with insulating metal sulfate shells. Nanoscale, 2021, 13, 10329-10334.	5.6	9
69	DNA Directed Self-Assembly of Fluorescent Colloidal Semiconductor Quantum Dots and Plasmonic Metal Nanoparticles Heterogeneous Nanomaterials. Chinese Journal of Chemistry, 2016, 34, 259-264.	4.9	7
70	Synthesis of two-dimensional phenylethylamine tin-lead halide perovskites with bandgap bending behavior. Nanoscale Advances, 2021, 3, 3875-3880.	4.6	7
71	Promoting the doping efficiency and photoluminescence quantum yield of Mn-doped perovskite nanocrystals via two-step hot-injection. Chemical Communications, 2022, 58, 941-944.	4.1	7
72	Efficient and Stable Thin-Film Luminescent Solar Concentrators Enabled by Near-Infrared Emission Perovskite Nanocrystals. Angewandte Chemie, 2020, 132, 7812-7816.	2.0	6

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73	Surfactant-Free Self-Assembly of Nanocrystals into Ellipsoidal Architectures. <i>ChemPhysChem</i> , 2010, 11, 3744-3751.	2.1	5
74	Bright and stable quaternary ammonium antimony halides for solid-state lighting. <i>Journal of Materials Chemistry C</i> , 2022, 10, 8938-8946.	5.5	5
75	Robust and Reversible Vapor-Luminescent Organometallic Copper Polymers. <i>Macromolecular Rapid Communications</i> , 2018, 39, e1800165.	3.9	3
76	Wash-induced multicolor tuning of carbon nano-dot/micro-belt hybrids with full recyclability and stable color convertibility. <i>Nanoscale</i> , 2019, 11, 14592-14597.	5.6	3
77	Non-triethylphosphine and chemical aerosol flow growth of high quality thiol-capped CdSe nanocrystals. <i>CrystEngComm</i> , 2012, 14, 3257.	2.6	2
78	Single-Layer Sheets of Alkylammonium Lead Iodide Perovskites with Tunable and Stable Green Emission for White Light-Emitting Devices. <i>Advanced Optical Materials</i> , 2022, 10, .	7.3	2
79	All-Inorganic Quantum-Dot LEDs Based on a Phase-Stabilized $\text{CsPbI}_3$ Perovskite. <i>Angewandte Chemie</i> , 2021, 133, 16300-16306.	2.0	1
80	Self-Assembled Synthesis and Characterization of Dandelion-Like and Flower-Like Cupric Oxide Nanostructures. <i>Nanoscience and Nanotechnology Letters</i> , 2010, 2, 35-40.	0.4	0