De-Hui Li

List of Publications by Year
in descending order

93 papers	6,860 citations	61984 43 h-index	60623 81 g-index
94 all docs	94 docs citations	94 times ranked	10139 citing authors

#	Article	IF	Citations
1	Electroluminescence and Photocurrent Generation from Atomically Sharp WSe₂/MoS₂ Heterojunction pâ€“n Diodes. Nano Letters, 2014, 14, 5590-5597.	9.1	937
2	Toward Barrier Free Contact to Molybdenum Disulfide Using Graphene Electrodes. Nano Letters, 2015, 15, 3030-3034.	9.1	362
3	Chiral 2D Perovskites with a High Degree of Circularly Polarized Photoluminescence. ACS Nano, 2019, 13, 3659-3665.	14.6	334
4	Wafer-scale growth of large arrays of perovskite microplate crystals for functional electronics and optoelectronics. Science Advances, 2015, 1, e1500613.	10.3	265
5	Laser cooling of a semiconductor by 40 kelvin. Nature, 2013, 493, 504-508.	27.8	264
6	Vertically Aligned Gold Nanorod Monolayer on Arbitrary Substrates: Self-Assembly and Femtomolar Detection of Food Contaminants. ACS Nano, 2013, 7, 5993-6000.	14.6	218
7	Flexible Visibleâ€“Infrared Metamaterials and Their Applications in Highly Sensitive Chemical and Biological Sensing. Nano Letters, 2011, 11, 3232-3238.	9.1	215
8	Self-trapped state enabled filterless narrowband photodetections in 2D layered perovskite single crystals. Nature Communications, 2019, 10, 806.	12.8	207
9	Size-dependent phase transition in methylammonium lead iodide perovskite microplate crystals. Nature Communications, 2016, 7, 11330.	12.8	206
10	Ordered Array of Gold Semishells on TiO₂ Spheres: An Ultrasensitive and Recyclable SERS Substrate. ACS Applied Materials & Interfaces, 2012, 4, 2180-2185.	8.0	186
11	van der Waals Heterojunction Devices Based on Organohalide Perovskites and Two-Dimensional Materials. Nano Letters, 2016, 16, 367-373.	9.1	185
12	Aqueous Synthesis of Low-Dimensional Lead Halide Perovskites for Room-Temperature Circularly Polarized Light Emission and Detection. ACS Nano, 2019, 13, 9473-9481.	14.6	135
13	Nonlinear optics of twoâ€dimensional transition metal dichalcogenides. InformaÄnÃ-MateriÃ¡ly, 2019, 1, 317-337.	17.3	134
14	Electric-field-induced strong enhancement of electroluminescence in multilayer molybdenum disulfide. Nature Communications, 2015, 6, 7509.	12.8	132
15	Recent Progress of Chiral Perovskites: Materials, Synthesis, and Properties. Advanced Materials, 2021, 33, e2008785.	21.0	126
16	Recent Progress in Shortâ€•to Longâ€Wave Infrared Photodetection Using 2D Materials and Heterostructures. Advanced Optical Materials, 2021, 9, 2001708.	7.3	118
17	Electronic and Ionic Transport Dynamics in Organolead Halide Perovskites. ACS Nano, 2016, 10, 6933-6941.	14.6	115
18	Optical and Excitonic Properties of Crystalline ZnS Nanowires: Toward Efficient Ultraviolet Emission at Room Temperature. Nano Letters, 2010, 10, 4956-4961.	9.1	114

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19	High-Performance Photodetectors Based on Lead-Free 2D Ruddlesdenâ€“Popper Perovskite/MoS₂ Heterostructures. ACS Applied Materials & Interfaces, 2019, 11, 8419-8427.	8.0	114
20	Controllable Growth of Centimeter-Sized 2D Perovskite Heterostructures for Highly Narrow Dual-Band Photodetectors. ACS Nano, 2019, 13, 5473-5484.	14.6	110
21	Chemical vapor deposition growth of single-crystalline cesium lead halide microplatelets and heterostructures for optoelectronic applications. Nano Research, 2017, 10, 1223-1233.	10.4	96
22	The Effect of Thermal Annealing on Charge Transport in Organolead Halide Perovskite Microplate Fieldâ€Effect Transistors. Advanced Materials, 2017, 29, 1601959.	21.0	91
23	Temperature-Dependent Band Gap in Two-Dimensional Perovskites: Thermal Expansion Interaction and Electronâ€“Phonon Interaction. Journal of Physical Chemistry Letters, 2019, 10, 2546-2553.	4.6	90
24	Assembly of Colloidal Nanoparticles Directed by the Microstructures of Polycrystalline Ice. ACS Nano, 2011, 5, 8426-8433.	14.6	85
25	Filterless Polarizationâ€Sensitive 2D Perovskite Narrowband Photodetectors. Advanced Optical Materials, 2019, 7, 1900988.	7.3	83
26	Modulating the electronic structures of graphene by controllable hydrogenation. Applied Physics Letters, 2010, 97, .	3.3	82
27	Flexible capacitive pressure sensors for wearable electronics. Journal of Materials Chemistry C, 2022, 10, 1594-1605.	5.5	82
28	Circularly Polarized Luminescence from Chiral Tetranuclear Copper(I) Iodide Clusters. Journal of Physical Chemistry Letters, 2020, 11, 1255-1260.	4.6	79
29	Self-trapped excitons in two-dimensional perovskites. Frontiers of Optoelectronics, 2020, 13, 225-234.	3.7	77
30	Synthesis and optical properties of IIâ€“VI 1D nanostructures. Nanoscale, 2012, 4, 1422.	5.6	74
31	Nonlayered Two-Dimensional Defective Semiconductor Î³-Ga₂S₃ toward Broadband Photodetection. ACS Nano, 2019, 13, 6297-6307.	14.6	72
32	Robust Interlayer Coupling in Two-Dimensional Perovskite/Monolayer Transition Metal Dichalcogenide Heterostructures. ACS Nano, 2020, 14, 10258-10264.	14.6	67
33	Fabrication of single phase 2D homologous perovskite microplates by mechanical exfoliation. 2D Materials, 2018, 5, 021001.	4.4	65
34	Reversible luminescent humidity chromism of organicâ€“inorganic hybrid PEA₂MnBr₄ single crystals. Dalton Transactions, 2020, 49, 5662-5668.	3.3	65
35	Electric-Field-Dependent Photoconductivity in CdS Nanowires and Nanobelts: Exciton Ionization, Franzâ€“Keldysh, and Stark Effects. Nano Letters, 2012, 12, 2993-2999.	9.1	62
36	Surface Depletion Induced Quantum Confinement in CdS Nanobelts. ACS Nano, 2012, 6, 5283-5290.	14.6	60

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37	Giant Nonlinear Optical Response in 2D Perovskite Heterostructures. Advanced Optical Materials, 2019, 7, 1900398.	7.3	58
38	Controllable Synthesis of Two-Dimensional Ruddlesdenâ€“Popper-Type Perovskite Heterostructures. Journal of Physical Chemistry Letters, 2017, 8, 6211-6219.	4.6	54
39	Quantum dots on vertically aligned gold nanorod monolayer: plasmon enhanced fluorescence. Nanoscale, 2014, 6, 5592-5598.	5.6	53
40	Anisotropy of Excitons in Two-Dimensional Perovskite Crystals. ACS Nano, 2020, 14, 2156-2161.	14.6	52
41	Tailoring Optical Properties of Silicon Nanowires by Au Nanostructure Decorations: Enhanced Raman Scattering and Photodetection. Journal of Physical Chemistry C, 2012, 116, 4416-4422.	3.1	51
42	Manipulation of Valley Pseudospin by Selective Spin Injection in Chiral Two-Dimensional Perovskite/Monolayer Transition Metal Dichalcogenide Heterostructures. ACS Nano, 2020, 14, 15154-15160.	14.6	49
43	Light-Enhanced Ion Migration in Two-Dimensional Perovskite Single Crystals Revealed in Carbon Nanotubes/Two-Dimensional Perovskite Heterostructure and Its Photomemory Application. ACS Central Science, 2019, 5, 1857-1865.	11.3	45
44	The Role of Chloride Incorporation in Leadâ€Free 2D Perovskite (BA)₂SnI₄: Morphology, Photoluminescence, Phase Transition, and Charge Transport. Advanced Science, 2019, 6, 1802019.	11.2	42
45	Large Optical Anisotropy in Two-Dimensional Perovskite [CH(NH₂)₂][C(NH₂)₃]PbI₄ with Corrugated Inorganic Layers. Nano Letters, 2020, 20, 2339-2347.	9.1	40
46	Two-Dimensional Lead-Free Perovskite (C₆H₅C₂H₄NH₃)₂CsSn₂I₇ with High Hole Mobility. Journal of Physical Chemistry Letters, 2019, 10, 7-12.	6.4	37
47	Photoinduced Charge Transfer within Polyaniline-Encapsulated Quantum Dots Decorated on Graphene. ACS Applied Materials & Interfaces, 2013, 5, 8105-8110.	8.0	36
48	Reduced graphene oxide/silicon nanowire heterostructures with enhanced photoactivity and superior photoelectrochemical stability. Nano Research, 2015, 8, 2850-2858.	10.4	34
49	Laser cooling of CdS nanobelts: Thickness matters. Optics Express, 2013, 21, 19302.	3.4	31
50	Two-Step Growth of 2D Organicâ€“Inorganic Perovskite Microplates and Arrays for Functional Optoelectronics. Journal of Physical Chemistry Letters, 2018, 9, 4532-4538.	4.6	31
51	Chargeâ€Accumulation Effect in Transition Metal Dichalcogenide Heterobilayers. Small, 2019, 15, e1902424.	10.0	30
52	Vaporâ€Phase Growth of CsPbBr₃ Microstructures for Highly Efficient Pure Green Light Emission. Advanced Optical Materials, 2019, 7, 1801336.	7.3	30
53	Epitaxial growth of CsPbBr3-PbS vertical and lateral heterostructures for visible to infrared broadband photodetection. Nano Research, 2021, 14, 3879-3885.	10.4	25
54	Seedsâ€Assisted Spaceâ€Confined Growth of Allâ€Inorganic Perovskite Arrays for Ultralowâ€Threshold Singleâ€Mode Lasing. Laser and Photonics Reviews, 2021, 15, 2000428.	8.7	24

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55	Fullâ€Stokes Polarimeter Based on Chiral Perovskites with Chirality and Large Optical Anisotropy. Small, 2021, 17, e2103855.	10.0	23
56	Solid-State Semiconductor Optical Cryocooler Based on CdS Nanobelts. Nano Letters, 2014, 14, 4724-4728.	9.1	22
57	Thermally Assisted Rashba Splitting and Circular Photogalvanic Effect in Aqueously Synthesized 2D Dionâ€“Jacobson Perovskite Crystals. Nano Letters, 2021, 21, 4584-4591.	9.1	22
58	Gate-Induced Insulator to Band-Like Transport Transition in Organolead Halide Perovskite. Journal of Physical Chemistry Letters, 2017, 8, 429-434.	4.6	20
59	Biexcitons in 2D (iso-BA)₂PbI₄ perovskite crystals. Nanophotonics, 2020, 9, 2001-2006.	6.0	19
60	Recent progress in two-dimensional Ruddlesdenâ€“Popper perovskite based heterostructures. 2D Materials, 2021, 8, 022006.	4.4	19
61	2D perovskite narrowband photodetector arrays. Journal of Materials Chemistry C, 2021, 9, 11085-11090.	5.5	18
62	Two-Dimensional Hybrid Perovskite-Based van der Waals Heterostructures. Journal of Physical Chemistry Letters, 2021, 12, 8178-8187.	4.6	18
63	Multistate Memory Enabled by Interface Engineering Based on Multilayer Tungsten Diselenide. ACS Applied Materials & Interfaces, 2020, 12, 58428-58434.	8.0	18
64	Recent progress of the optoelectronic properties of 2D Ruddlesden-Popper perovskites. Journal of Semiconductors, 2019, 40, 041901.	3.7	17
65	Optical anisotropy of one-dimensional perovskite C₄N₂H₁₄PbI₄ crystals. JPhys Photonics, 2020, 2, 014008.	4.6	16
66	The strain effects in 2D hybrid organicâ€“inorganic perovskite microplates: bandgap, anisotropy and stability. Nanoscale, 2020, 12, 6644-6650.	5.6	15
67	Excitonâ€“Phonon Interaction-Induced Large In-Plane Optical Anisotropy in Two-Dimensional All-Inorganic Perovskite Crystals. Journal of Physical Chemistry Letters, 2021, 12, 3387-3392.	4.6	15
68	Strain-induced spatially indirect exciton recombination in zinc-blende/wurtzite CdS heterostructures. Nano Research, 2015, 8, 3035-3044.	10.4	14
69	Controllable growth of two-dimensional perovskite microstructures. CrystEngComm, 2018, 20, 6538-6545.	2.6	14
70	Photoinduced Trap Passivation for Enhanced Photoluminescence in 2D Organicâ€“Inorganic Hybrid Perovskites. Advanced Optical Materials, 2020, 8, 1901695.	7.3	14
71	Self-Powered Filterless On-Chip Full-Stokes Polarimeter. Nano Letters, 2021, 21, 6156-6162.	9.1	13
72	Artificial Synapses Based on WSe₂ Homojunction via Vacancy Migration. ACS Applied Materials & Interfaces, 2022, 14, 21141-21149.	8.0	12

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73	Optical and Electrical Properties of Wurtzite Copper Indium Sulfide Nanoflakes. Materials Express, 2012, 2, 344-350.	0.5	11
74	Surface depletion field in 2D perovskite microplates: Structural phase transition, quantum confinement and Stark effect. Nano Research, 2019, 12, 2858-2865.	10.4	11
75	Roomâ€Temperature Excitonâ€Based Optoelectronic Switch. Small, 2021, 17, e2005918.	10.0	11
76	Enhancing Self-Trapped Exciton Emission via Energy Transfer in Two-Dimensional/Quantum Dot Perovskite Heterostructures. ACS Photonics, 2022, 9, 2008-2014.	6.6	11
77	Nanocrystalline copper indium selenide (CuInSe2) particles for solar energy harvesting. RSC Advances, 2013, 3, 9829.	3.6	10
78	Giant enhancement of photoluminescence quantum yield in 2D perovskite thin microplates by graphene encapsulation. Nano Research, 2021, 14, 1980-1984.	10.4	9
79	Nonvolatile electrical switching of optical and valleytronic properties of interlayer excitons. Light: Science and Applications, 2022, 11, 23.	16.6	9
80	Site-controlled interlayer coupling in WSe2/2D perovskite heterostructure. Science China Materials, 2022, 65, 1337-1344.	6.3	8
81	Optical characteristics of self-trapped excitons in 2D (iso-BA)₂PbI₄ perovskite crystals. Photonics Research, 2022, 10, 594.	7.0	6
82	Light-Controlled Reconfigurable Optical Synapse Based on Carbon Nanotubes/2D Perovskite Heterostructure for Image Recognition. ACS Applied Materials & Interfaces, 2022, 14, 28221-28229.	8.0	6
83	A field-effect approach to directly profiling the localized states in monolayer MoS2. Science Bulletin, 2019, 64, 1049-1055.	9.0	5
84	Potential and Kinetic Electron Emissions from HOPG Surface Irradiated by Highly Charged Xenon and Neon Ions. Chinese Physics Letters, 2011, 28, 053402.	3.3	4
85	Reply to: Can lasers really refrigerate CdS nanobelts?. Nature, 2019, 570, E62-E64.	27.8	4
86	Halide perovskites: from materials to optoelectronic devices. Frontiers of Optoelectronics, 2020, 13, 191-192.	3.7	4
87	Electric-field-induced phase transition in 2D layered perovskite (BA)2PbI4 microplate crystals. Applied Physics Letters, 2020, 116, .	3.3	4
88	A study of highly charged ions transmission through polycarbonate nanocapillaries with multi-holes. Physica Scripta, 2011, T144, 014046.	2.5	3
89	Enhanced Rashba Indirect Exciton Emission in 2D Dionâ€“Jacobson Perovskite Microplates via Efficient Photon Recycling. Advanced Optical Materials, 2022, 10, 2102103.	7.3	3
90	Demonstration of Net Laser Cooling in a Semiconductor. Asia-Pacific Physics Newsletter, 2013, 02, 27-28.	0.0	2

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91	Anisotropic deformation of Au nanoparticles by highly charged ion Xe²¹⁺irradiation. Physica Scripta, 2013, T156, 014064.	2.5	1
92	Laser cooling of a semiconductor by 40 kelvin: an optical refrigerator based on cadmium sulfide nanoribbions. , 2013, , .		0
93	Optical and Excitonic Properties of Crystalline ZnS Nanowires. , 2013, , 453-483.		0