

De-Hui Li

List of Publications by Year in descending order

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93
papers

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61984

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times ranked

10139
citing authors

#	ARTICLE	IF	CITATIONS
1	Flexible capacitive pressure sensors for wearable electronics. <i>Journal of Materials Chemistry C</i> , 2022, 10, 1594-1605.	5.5	82
2	Optical characteristics of self-trapped excitons in 2D (iso-BA) ₂ Pb ₄ perovskite crystals. <i>Photonics Research</i> , 2022, 10, 594.	7.0	6
3	Nonvolatile electrical switching of optical and valleytronic properties of interlayer excitons. <i>Light: Science and Applications</i> , 2022, 11, 23.	16.6	9
4	Site-controlled interlayer coupling in WSe ₂ /2D perovskite heterostructure. <i>Science China Materials</i> , 2022, 65, 1337-1344.	6.3	8
5	Enhanced Rashba Indirect Exciton Emission in 2D Dionâ€“Jacobson Perovskite Microplates via Efficient Photon Recycling. <i>Advanced Optical Materials</i> , 2022, 10, 2102103.	7.3	3
6	Artificial Synapses Based on WSe ₂ Homojunction via Vacancy Migration. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 21141-21149.	8.0	12
7	Enhancing Self-Trapped Exciton Emission via Energy Transfer in Two-Dimensional/Quantum Dot Perovskite Heterostructures. <i>ACS Photonics</i> , 2022, 9, 2008-2014.	6.6	11
8	Light-Controlled Reconfigurable Optical Synapse Based on Carbon Nanotubes/2D Perovskite Heterostructure for Image Recognition. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 28221-28229.	8.0	6
9	Giant enhancement of photoluminescence quantum yield in 2D perovskite thin microplates by graphene encapsulation. <i>Nano Research</i> , 2021, 14, 1980-1984.	10.4	9
10	Recent Progress in Short- to Long-Wave Infrared Photodetection Using 2D Materials and Heterostructures. <i>Advanced Optical Materials</i> , 2021, 9, 2001708.	7.3	118
11	2D perovskite narrowband photodetector arrays. <i>Journal of Materials Chemistry C</i> , 2021, 9, 11085-11090.	5.5	18
12	Epitaxial growth of CsPbBr ₃ -PbS vertical and lateral heterostructures for visible to infrared broadband photodetection. <i>Nano Research</i> , 2021, 14, 3879-3885.	10.4	25
13	Seeds-Assisted Space-Confining Growth of All-Inorganic Perovskite Arrays for Ultralow-Threshold Single-Mode Lasing. <i>Laser and Photonics Reviews</i> , 2021, 15, 2000428.	8.7	24
14	Recent progress in two-dimensional Ruddlesden-Popper perovskite based heterostructures. <i>2D Materials</i> , 2021, 8, 022006.	4.4	19
15	Exciton-Phonon Interaction-Induced Large In-Plane Optical Anisotropy in Two-Dimensional All-Inorganic Perovskite Crystals. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 3387-3392.	4.6	15
16	Thermally Assisted Rashba Splitting and Circular Photogalvanic Effect in Aqueously Synthesized 2D Dionâ€“Jacobson Perovskite Crystals. <i>Nano Letters</i> , 2021, 21, 4584-4591.	9.1	22
17	Recent Progress of Chiral Perovskites: Materials, Synthesis, and Properties. <i>Advanced Materials</i> , 2021, 33, e2008785.	21.0	126
18	Self-Powered Filterless On-Chip Full-Stokes Polarimeter. <i>Nano Letters</i> , 2021, 21, 6156-6162.	9.1	13

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19	Two-Dimensional Hybrid Perovskite-Based van der Waals Heterostructures. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 8178-8187.	4.6	18
20	Room-Temperature Exciton-Based Optoelectronic Switch. <i>Small</i> , 2021, 17, e2005918.	10.0	11
21	Full-Stokes Polarimeter Based on Chiral Perovskites with Chirality and Large Optical Anisotropy. <i>Small</i> , 2021, 17, e2103855.	10.0	23
22	Halide perovskites: from materials to optoelectronic devices. <i>Frontiers of Optoelectronics</i> , 2020, 13, 191-192.	3.7	4
23	Robust Interlayer Coupling in Two-Dimensional Perovskite/Monolayer Transition Metal Dichalcogenide Heterostructures. <i>ACS Nano</i> , 2020, 14, 10258-10264.	14.6	67
24	Manipulation of Valley Pseudospin by Selective Spin Injection in Chiral Two-Dimensional Perovskite/Monolayer Transition Metal Dichalcogenide Heterostructures. <i>ACS Nano</i> , 2020, 14, 15154-15160.	14.6	49
25	Self-trapped excitons in two-dimensional perovskites. <i>Frontiers of Optoelectronics</i> , 2020, 13, 225-234.	3.7	77
26	Large Optical Anisotropy in Two-Dimensional Perovskite $[\text{CH}(\text{NH}_2)_2]_2[\text{C}(\text{NH}_2)_3]\text{PbI}_4$ with Corrugated Inorganic Layers. <i>Nano Letters</i> , 2020, 20, 2339-2347.	9.1	40
27	Reversible luminescent humidity chromism of organic-inorganic hybrid $\text{PEA}_2\text{MnBr}_4$ single crystals. <i>Dalton Transactions</i> , 2020, 49, 5662-5668.	3.3	65
28	Electric-field-induced phase transition in 2D layered perovskite (BA) $_2\text{PbI}_4$ microplate crystals. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	4
29	The strain effects in 2D hybrid organic-inorganic perovskite microplates: bandgap, anisotropy and stability. <i>Nanoscale</i> , 2020, 12, 6644-6650.	5.6	15
30	Biexcitons in 2D (iso-BA) $_2\text{PbI}_4$ perovskite crystals. <i>Nanophotonics</i> , 2020, 9, 2001-2006.	6.0	19
31	Circularly Polarized Luminescence from Chiral Tetranuclear Copper(I) Iodide Clusters. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 1255-1260.	4.6	79
32	Anisotropy of Excitons in Two-Dimensional Perovskite Crystals. <i>ACS Nano</i> , 2020, 14, 2156-2161.	14.6	52
33	Optical anisotropy of one-dimensional perovskite $\text{C}_4\text{N}_2\text{H}_{14}\text{PbI}_4$ crystals. <i>JPhys Photonics</i> , 2020, 2, 014008.	4.6	16
34	Photoinduced Trap Passivation for Enhanced Photoluminescence in 2D Organic-Inorganic Hybrid Perovskites. <i>Advanced Optical Materials</i> , 2020, 8, 1901695.	7.3	14
35	Multistate Memory Enabled by Interface Engineering Based on Multilayer Tungsten Diselenide. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 58428-58434.	8.0	18
36	Aqueous Synthesis of Low-Dimensional Lead Halide Perovskites for Room-Temperature Circularly Polarized Light Emission and Detection. <i>ACS Nano</i> , 2019, 13, 9473-9481.	14.6	135

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37	Nonlinear optics of two-dimensional transition metal dichalcogenides. <i>Informa-Materials</i> , 2019, 1, 317-337.	17.3	134
38	Light-Enhanced Ion Migration in Two-Dimensional Perovskite Single Crystals Revealed in Carbon Nanotubes/Two-Dimensional Perovskite Heterostructure and Its Photomemory Application. <i>ACS Central Science</i> , 2019, 5, 1857-1865.	11.3	45
39	Reply to: Can lasers really refrigerate CdS nanobelts?. <i>Nature</i> , 2019, 570, E62-E64.	27.8	4
40	Filterless Polarization-Sensitive 2D Perovskite Narrowband Photodetectors. <i>Advanced Optical Materials</i> , 2019, 7, 1900988.	7.3	83
41	Charge-Accumulation Effect in Transition Metal Dichalcogenide Heterobilayers. <i>Small</i> , 2019, 15, e1902424.	10.0	30
42	Surface depletion field in 2D perovskite microplates: Structural phase transition, quantum confinement and Stark effect. <i>Nano Research</i> , 2019, 12, 2858-2865.	10.4	11
43	The Role of Chloride Incorporation in Lead-Free 2D Perovskite (BA) ₂ SnI ₄ : Morphology, Photoluminescence, Phase Transition, and Charge Transport. <i>Advanced Science</i> , 2019, 6, 1802019.	11.2	42
44	High-Performance Photodetectors Based on Lead-Free 2D Ruddlesden-Popper Perovskite/MoS ₂ Heterostructures. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 8419-8427.	8.0	114
45	A field-effect approach to directly profiling the localized states in monolayer MoS ₂ . <i>Science Bulletin</i> , 2019, 64, 1049-1055.	9.0	5
46	Nonlayered Two-Dimensional Defective Semiconductor $\text{In}^{3+}\text{-Ga}^{2+}\text{-S}^{3-}$ toward Broadband Photodetection. <i>ACS Nano</i> , 2019, 13, 6297-6307.	14.6	72
47	Giant Nonlinear Optical Response in 2D Perovskite Heterostructures. <i>Advanced Optical Materials</i> , 2019, 7, 1900398.	7.3	58
48	Controllable Growth of Centimeter-Sized 2D Perovskite Heterostructures for Highly Narrow Dual-Band Photodetectors. <i>ACS Nano</i> , 2019, 13, 5473-5484.	14.6	110
49	Temperature-Dependent Band Gap in Two-Dimensional Perovskites: Thermal Expansion Interaction and Electron-Phonon Interaction. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 2546-2553.	4.6	90
50	Chiral 2D Perovskites with a High Degree of Circularly Polarized Photoluminescence. <i>ACS Nano</i> , 2019, 13, 3659-3665.	14.6	334
51	Recent progress of the optoelectronic properties of 2D Ruddlesden-Popper perovskites. <i>Journal of Semiconductors</i> , 2019, 40, 041901.	3.7	17
52	Self-trapped state enabled filterless narrowband photodetections in 2D layered perovskite single crystals. <i>Nature Communications</i> , 2019, 10, 806.	12.8	207
53	Two-Dimensional Lead-Free Perovskite (C ₆ H ₅ C ₂ H ₄ NH ₃) ₂ CsSn ₂ Br ₇ with High Hole Mobility. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 7-12.	7.3	30
54	Vapor-Phase Growth of CsPbBr ₃ Microstructures for Highly Efficient Pure Green Light Emission. <i>Advanced Optical Materials</i> , 2019, 7, 1801336.	7.3	30

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55	Fabrication of single phase 2D homologous perovskite microplates by mechanical exfoliation. 2D Materials, 2018, 5, 021001.	4.4	65
56	Controllable growth of two-dimensional perovskite microstructures. CrystEngComm, 2018, 20, 6538-6545.	2.6	14
57	Two-Step Growth of 2D Organic-Inorganic Perovskite Microplates and Arrays for Functional Optoelectronics. Journal of Physical Chemistry Letters, 2018, 9, 4532-4538.	4.6	31
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	Controllable Synthesis of Two-Dimensional Ruddlesden-Popper-Type Perovskite Heterostructures. Journal of Physical Chemistry Letters, 2017, 8, 6211-6219.	4.6	54
60	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
61	The Effect of Thermal Annealing on Charge Transport in Organolead Halide Perovskite Microplate Field-Effect Transistors. Advanced Materials, 2017, 29, 1601959.	21.0	91
62	Size-dependent phase transition in methylammonium lead iodide perovskite microplate crystals. Nature Communications, 2016, 7, 11330.	12.8	206
63	Electronic and Ionic Transport Dynamics in Organolead Halide Perovskites. ACS Nano, 2016, 10, 6933-6941.	14.6	115
64	van der Waals Heterojunction Devices Based on Organohalide Perovskites and Two-Dimensional Materials. Nano Letters, 2016, 16, 367-373.	9.1	185
65	Reduced graphene oxide/silicon nanowire heterostructures with enhanced photoactivity and superior photoelectrochemical stability. Nano Research, 2015, 8, 2850-2858.	10.4	34
66	Electric-field-induced strong enhancement of electroluminescence in multilayer molybdenum disulfide. Nature Communications, 2015, 6, 7509.	12.8	132
67	Toward Barrier Free Contact to Molybdenum Disulfide Using Graphene Electrodes. Nano Letters, 2015, 15, 3030-3034.	9.1	362
68	Strain-induced spatially indirect exciton recombination in zinc-blende/wurtzite CdS heterostructures. Nano Research, 2015, 8, 3035-3044.	10.4	14
69	Wafer-scale growth of large arrays of perovskite microplate crystals for functional electronics and optoelectronics. Science Advances, 2015, 1, e1500613.	10.3	265
70	Quantum dots on vertically aligned gold nanorod monolayer: plasmon enhanced fluorescence. Nanoscale, 2014, 6, 5592-5598.	5.6	53
71	Solid-State Semiconductor Optical Cryocooler Based on CdS Nanobelts. Nano Letters, 2014, 14, 4724-4728.	9.1	22
72	Electroluminescence and Photocurrent Generation from Atomically Sharp WSe ₂ /MoS ₂ Heterojunction n Diodes. Nano Letters, 2014, 14, 5590-5597.	9.1	937

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73	Nanocrystalline copper indium selenide (CuInSe ₂) particles for solar energy harvesting. RSC Advances, 2013, 3, 9829.	3.6	10
74	Photoinduced Charge Transfer within Polyaniline-Encapsulated Quantum Dots Decorated on Graphene. ACS Applied Materials & Interfaces, 2013, 5, 8105-8110.	8.0	36
75	Anisotropic deformation of Au nanoparticles by highly charged ion Xe ²¹⁺ irradiation. Physica Scripta, 2013, T156, 014064.	2.5	1
76	Laser cooling of a semiconductor by 40 kelvin. Nature, 2013, 493, 504-508.	27.8	264
77	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
78	Demonstration of Net Laser Cooling in a Semiconductor. Asia-Pacific Physics Newsletter, 2013, 02, 27-28.	0.0	2
79	Laser cooling of a semiconductor by 40 kelvin: an optical refrigerator based on cadmium sulfide nanoribbons. , 2013, , .		0
80	Laser cooling of CdS nanobelts: Thickness matters. Optics Express, 2013, 21, 19302.	3.4	31
81	Optical and Excitonic Properties of Crystalline ZnS Nanowires. , 2013, , 453-483.		0
82	Optical and Electrical Properties of Wurtzite Copper Indium Sulfide Nanoflakes. Materials Express, 2012, 2, 344-350.	0.5	11
83	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
84	Surface Depletion Induced Quantum Confinement in CdS Nanobelts. ACS Nano, 2012, 6, 5283-5290.	14.6	60
85	Ordered Array of Gold Semishells on TiO ₂ Spheres: An Ultrasensitive and Recyclable SERS Substrate. ACS Applied Materials & Interfaces, 2012, 4, 2180-2185.	8.0	186
86	Synthesis and optical properties of II-VI 1D nanostructures. Nanoscale, 2012, 4, 1422.	5.6	74
87	Electric-Field-Dependent Photoconductivity in CdS Nanowires and Nanobelts: Exciton Ionization, Franz-Keldysh, and Stark Effects. Nano Letters, 2012, 12, 2993-2999.	9.1	62
88	Assembly of Colloidal Nanoparticles Directed by the Microstructures of Polycrystalline Ice. ACS Nano, 2011, 5, 8426-8433.	14.6	85
89	A study of highly charged ions transmission through polycarbonate nanocapillaries with multi-holes. Physica Scripta, 2011, T144, 014046.	2.5	3
90	Flexible Visible-Infrared Metamaterials and Their Applications in Highly Sensitive Chemical and Biological Sensing. Nano Letters, 2011, 11, 3232-3238.	9.1	215

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91	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
92	Optical and Excitonic Properties of Crystalline ZnS Nanowires: Toward Efficient Ultraviolet Emission at Room Temperature. Nano Letters, 2010, 10, 4956-4961.	9.1	114
93	Modulating the electronic structures of graphene by controllable hydrogenation. Applied Physics Letters, 2010, 97, .	3.3	82