

# Hongbin Liu

## List of Publications by Year in descending order

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Version: 2024-02-01

30  
papers

2,416  
citations

304743

22  
h-index

454955

30  
g-index

31  
all docs

31  
docs citations

31  
times ranked

4163  
citing authors

#	ARTICLE	IF	CITATIONS
1	Prospects of quantum computing for molecular sciences. <i>Materials Theory</i> , 2022, 6, .	4.3	21
2	All-inorganic CsPbI <sub>3</sub> Quantum Dot Solar Cells with Efficiency over 16% by Defect Control. <i>Advanced Functional Materials</i> , 2021, 31, 2005930.	14.9	101
3	Toward Quantum Computing for High-Energy Excited States in Molecular Systems: Quantum Phase Estimations of Core-Level States. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 201-210.	5.3	16
4	High-Efficiency Quasi-2D Perovskite Solar Cells Incorporating 2,2'-bipyridinium Cation. <i>Solar Rrl</i> , 2021, 5, 2000700.	5.8	9
5	Iron-Content-Dependent, Quasi-Static Dielectric Resonances and Oxidative Transitions in Bornite and Chalcopyrite Copper Iron Sulfide Nanocrystals. <i>Chemistry of Materials</i> , 2021, 33, 1821-1831.	6.7	17
6	Tunable Band-Edge Potentials and Charge Storage in Colloidal Tin-Doped Indium Oxide (ITO) Nanocrystals. <i>ACS Nano</i> , 2021, 15, 14116-14124.	14.6	8
7	Highly efficient all-inorganic perovskite solar cells with suppressed non-radiative recombination by a Lewis base. <i>Nature Communications</i> , 2020, 11, 177.	12.8	360
8	Interfacial Modification through a Multifunctional Molecule for Inorganic Perovskite Solar Cells with over 18% Efficiency. <i>Solar Rrl</i> , 2020, 4, 2000205.	5.8	38
9	Relativistic Two-Component Multireference Configuration Interaction Method with Tunable Correlation Space. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 2975-2984.	5.3	30
10	A 0D/3D Heterostructured All-inorganic Halide Perovskite Solar Cell with High Performance and Enhanced Phase Stability. <i>Advanced Materials</i> , 2019, 31, e1904735.	21.0	117
11	Time-Dependent Complete Active Space Embedded in a Polarizable Force Field. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 1633-1641.	5.3	16
12	Structural Diversity in Cesium Bismuth Halide Nanocrystals. <i>Chemistry of Materials</i> , 2019, 31, 4685-4697.	6.7	80
13	Tailoring the Functionality of Organic Spacer Cations for Efficient and Stable Quasi-2D Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1900221.	14.9	144
14	Variational Relativistic Two-Component Complete-Active-Space Self-Consistent Field Method. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 2974-2982.	5.3	28
15	Soluble Supercapacitors: Large and Reversible Charge Storage in Colloidal Iron-Doped ZnO Nanocrystals. <i>Nano Letters</i> , 2018, 18, 3297-3302.	9.1	40
16	Tunable Band Gap and Long Carrier Recombination Lifetime of Stable Mixed CH <sub>3</sub> NH <sub>3</sub> Pb <sub>1-x</sub> Sn <sub>x</sub> Br <sub>3</sub> Single Crystals. <i>Chemistry of Materials</i> , 2018, 30, 1556-1565.	6.7	93
17	Di-Spiro-Based Hole-Transporting Materials for Highly Efficient Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1800809.	19.5	79
18	Highly Efficient Organic Solar Cells Based on S,N-Heteroacene Non-Fullerene Acceptors. <i>Chemistry of Materials</i> , 2018, 30, 5429-5434.	6.7	194

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19	Long-Lived, Non-Geminate, Radiative Recombination of Photogenerated Charges in a Polymer/Small-Molecule Acceptor Photovoltaic Blend. <i>Journal of the American Chemical Society</i> , 2018, 140, 9996-10008.	13.7	73
20	Interplay of Mobile Ions and Injected Carriers Creates Recombination Centers in Metal Halide Perovskites under Bias. <i>ACS Energy Letters</i> , 2018, 3, 1279-1286.	17.4	106
21	Modulation of Fluorescent Protein Chromophores To Detect Protein Aggregation with Turn-On Fluorescence. <i>Journal of the American Chemical Society</i> , 2018, 140, 7381-7384.	13.7	147
22	Realization of a Highly Oriented MAPbBr <sub>3</sub> Perovskite Thin Film via Ion Exchange for Ultrahigh Color Purity Green Light Emission. <i>ACS Energy Letters</i> , 2018, 3, 1662-1669.	17.4	38
23	The Cation <sup>+</sup> Interaction Enables a Halo-Tag Fluorogenic Probe for Fast No-Wash Live Cell Imaging and Gel-Free Protein Quantification. <i>Biochemistry</i> , 2017, 56, 1585-1595.	2.5	66
24	A Hybrid Quantum-Classical Model of Electrostatics in Multiply Charged Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2017, 121, 26086-26095.	3.1	22
25	Enhanced efficiency and stability of inverted perovskite solar cells by interfacial engineering with alkyl bisphosphonic molecules. <i>RSC Advances</i> , 2017, 7, 42105-42112.	3.6	13
26	4-Tert-butylpyridine Free Organic Hole Transporting Materials for Stable and Efficient Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700683.	19.5	115
27	Mixed Cation FA <sub>x</sub> PEA <sub>1-x</sub> Pb <sub>3</sub> with Enhanced Phase and Ambient Stability toward High-Performance Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1601307.	19.5	298
28	A Low-Temperature, Solution-Processable Organic Electron-Transporting Layer Based on Planar Coronene for High-performance Conventional Perovskite Solar Cells. <i>Advanced Materials</i> , 2016, 28, 10786-10793.	21.0	102
29	Ab initio two-component Ehrenfest dynamics. <i>Journal of Chemical Physics</i> , 2015, 143, 114105.	3.0	31
30	Excited state properties of a short $\pi$ -electron conjugated peridinin analogue. <i>Chemical Physics Letters</i> , 2014, 593, 132-139.	2.6	14