Hongbin Liu

List of Publications by Year
in descending order

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	Highly efficient all-inorganic perovskite solar cells with suppressed non-radiative recombination by a Lewis base. Nature Communications, 2020, 11, 177.	12.8	360
2	Mixed Cation FA<i>_x</i>PEA_{1â€“}<i>_x</i>PbI₃ with Enhanced Phase and Ambient Stability toward Highâ€Performance Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1601307.	19.5	298
3	Highly Efficient Organic Solar Cells Based on S,N-Heteroacene Non-Fullerene Acceptors. Chemistry of Materials, 2018, 30, 5429-5434.	6.7	194
4	Modulation of Fluorescent Protein Chromophores To Detect Protein Aggregation with Turn-On Fluorescence. Journal of the American Chemical Society, 2018, 140, 7381-7384.	13.7	147
5	Tailoring the Functionality of Organic Spacer Cations for Efficient and Stable Quasiâ€2D Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900221.	14.9	144
6	A 0D/3D Heterostructured Allâ€Inorganic Halide Perovskite Solar Cell with High Performance and Enhanced Phase Stability. Advanced Materials, 2019, 31, e1904735.	21.0	117
7	4â€<i>Tert</i>â€butylpyridine Free Organic Hole Transporting Materials for Stable and Efficient Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700683.	19.5	115
8	Interplay of Mobile Ions and Injected Carriers Creates Recombination Centers in Metal Halide Perovskites under Bias. ACS Energy Letters, 2018, 3, 1279-1286.	17.4	106
9	A Lowâ€Temperature, Solutionâ€Processable Organic Electronâ€Transporting Layer Based on Planar Coronene for Highâ€performance Conventional Perovskite Solar Cells. Advanced Materials, 2016, 28, 10786-10793.	21.0	102
10	Allâ€Inorganic CsPbI₃ Quantum Dot Solar Cells with Efficiency over 16% by Defect Control. Advanced Functional Materials, 2021, 31, 2005930.	14.9	101
11	Tunable Band Gap and Long Carrier Recombination Lifetime of Stable Mixed CH₃NH₃Pb_{<i>x</i>}Sn_{1â€“<i>x</i>}Br₃ Single Crystals. Chemistry of Materials, 2018, 30, 1556-1565.	6.7	93
12	Structural Diversity in Cesium Bismuth Halide Nanocrystals. Chemistry of Materials, 2019, 31, 4685-4697.	6.7	80
13	Diâ€Spiroâ€Based Holeâ€Transporting Materials for Highly Efficient Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1800809.	19.5	79
14	Long-Lived, Non-Geminate, Radiative Recombination of Photogenerated Charges in a Polymer/Small-Molecule Acceptor Photovoltaic Blend. Journal of the American Chemical Society, 2018, 140, 9996-10008.	13.7	73
15	The Cationâˆ’Ï€ Interaction Enables a Halo-Tag Fluorogenic Probe for Fast No-Wash Live Cell Imaging and Gel-Free Protein Quantification. Biochemistry, 2017, 56, 1585-1595.	2.5	66
16	Soluble Supercapacitors: Large and Reversible Charge Storage in Colloidal Iron-Doped ZnO Nanocrystals. Nano Letters, 2018, 18, 3297-3302.	9.1	40
17	Realization of a Highly Oriented MAPbBr₃ Perovskite Thin Film via Ion Exchange for Ultrahigh Color Purity Green Light Emission. ACS Energy Letters, 2018, 3, 1662-1669.	17.4	38
18	Interfacial Modification through a Multifunctional Molecule for Inorganic Perovskite Solar Cells with over 18% Efficiency. Solar Rrl, 2020, 4, 2000205.	5.8	38

#	Article	IF	Citations
19	Ab initio two-component Ehrenfest dynamics. Journal of Chemical Physics, 2015, 143, 114105.	3.0	31
20	Relativistic Two-Component Multireference Configuration Interaction Method with Tunable Correlation Space. Journal of Chemical Theory and Computation, 2020, 16, 2975-2984.	5.3	30
21	Variational Relativistic Two-Component Complete-Active-Space Self-Consistent Field Method. Journal of Chemical Theory and Computation, 2019, 15, 2974-2982.	5.3	28
22	A Hybrid Quantum-Classical Model of Electrostatics in Multiply Charged Quantum Dots. Journal of Physical Chemistry C, 2017, 121, 26086-26095.	3.1	22
23	Prospects of quantum computing for molecular sciences. Materials Theory, 2022, 6, .	4.3	21
24	Iron-Content-Dependent, Quasi-Static Dielectric Resonances and Oxidative Transitions in Bornite and Chalcopyrite Copper Iron Sulfide Nanocrystals. Chemistry of Materials, 2021, 33, 1821-1831.	6.7	17
25	Time-Dependent Complete Active Space Embedded in a Polarizable Force Field. Journal of Chemical Theory and Computation, 2019, 15, 1633-1641.	5.3	16
26	Toward Quantum Computing for High-Energy Excited States in Molecular Systems: Quantum Phase Estimations of Core-Level States. Journal of Chemical Theory and Computation, 2021, 17, 201-210.	5.3	16
27	Excited state properties of a short Ï€-electron conjugated peridinin analogue. Chemical Physics Letters, 2014, 593, 132-139.	2.6	14
28	Enhanced efficiency and stability of inverted perovskite solar cells by interfacial engineering with alkyl bisphosphonic molecules. RSC Advances, 2017, 7, 42105-42112.	3.6	13
29	Highâ€Efficiency Quasiâ€2D Perovskite Solar Cells Incorporating 2,2â€²â€Biimidazolium Cation. Solar Rrl, 2021, 5, 2000700.	5.8	9
30	Tunable Band-Edge Potentials and Charge Storage in Colloidal Tin-Doped Indium Oxide (ITO) Nanocrystals. ACS Nano, 2021, 15, 14116-14124.	14.6	8