Bing Zhang

List of Publications by Year
in descending order

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		430754	360920
42	1,215	18	35
papers	citations	h-index	g-index

43	43	43	2435
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Manipulating the Tradeâ€off Between Quantum Yield and Electrical Conductivity for Highâ€Brightness Quasiâ€2D Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2018, 28, 1804187.	7.8	113
2	GeI₂ Additive for High Optoelectronic Quality CsPbI₃ Quantum Dots and Their Application in Photovoltaic Devices. Chemistry of Materials, 2019, 31, 798-807.	3.2	112
3	The growth of a CH₃NH₃PbI₃thin film using simplified close space sublimation for efficient and large dimensional perovskite solar cells. Energy and Environmental Science, 2016, 9, 1486-1494.	15.6	104
4	Mixed-Organic-Cation (FA)_x(MA)_{1â€“x}PbI₃ Planar Perovskite Solar Cells with 16.48% Efficiency via a Low-Pressure Vapor-Assisted Solution Process. ACS Applied Materials & Interfaces, 2017, 9, 2449-2458.	4.0	98
5	Recent Progress in Quantum Chemistry Modeling on the Pyrolysis Mechanisms of Lignocellulosic Biomass. Energy & Fuels, 2020, 34, 10384-10440.	2.5	91
6	Low-temperature, solution-deposited metal chalcogenide films as highly efficient counter electrodes for sensitized solar cells. Journal of Materials Chemistry A, 2015, 3, 6315-6323.	5.2	80
7	Effect of Energy Alignment, Electron Mobility, and Film Morphology of Perylene Diimide Based Polymers as Electron Transport Layer on the Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 10983-10991.	4.0	76
8	Multiple-Anchoring Triphenylamine Dyes for Dye-Sensitized Solar Cell Application. Journal of Physical Chemistry C, 2014, 118, 8756-8765.	1.5	70
9	Stable Quasi-Solid-State Dye-Sensitized Solar Cells Using Novel Low Molecular Mass Organogelators and Room-Temperature Molten Salts. Journal of Physical Chemistry C, 2014, 118, 16718-16726.	1.5	37
10	Engineering the vertical concentration distribution within the polymer:fullerene blends for high performance inverted polymer solar cells. Journal of Materials Chemistry A, 2017, 5, 2319-2327.	5.2	37
11	Fabrication of Sulfurâ€Incorporated Bismuthâ€Based Perovskite Solar Cells via a Vaporâ€Assisted Solution Process. Solar Rrl, 2019, 3, 1900218.	3.1	31
12	New-type highly stable 2D/3D perovskite materials: the effect of introducing ammonium cation on performance of perovskite solar cells. Science China Materials, 2019, 62, 508-518.	3.5	31
13	Enhanced Proton Conductivity in Sulfonated Poly(ether ether ketone) Membranes by Incorporating Sodium Dodecyl Benzene Sulfonate. Polymers, 2019, 11, 203.	2.0	26
14	Enhancing the Performance of Blue Quantum Dots Lightâ€Emitting Diodes through Interface Engineering with Deoxyribonucleic Acid. Advanced Optical Materials, 2018, 6, 1800578.	3.6	25
15	Optimization of the Energy Level Alignment between the Photoactive Layer and the Cathode Contact Utilizing Solution-Processed Hafnium Acetylacetonate as Buffer Layer for Efficient Polymer Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 432-441.	4.0	24
16	An in silico approach for the discovery of CDK5/p25 interaction inhibitors. Biotechnology Journal, 2011, 6, 871-881.	1.8	21
17	High-performance mixed-dimensional perovskite solar cells with enhanced stability against humidity, heat and UV light. Journal of Materials Chemistry A, 2018, 6, 20233-20241.	5.2	21
18	Moisture-Induced Crystallinity Improvement for Efficient CsPbI_{3â€“x}Br_x Perovskite Solar Cells with Excess Cesium Bromide. Journal of Physical Chemistry Letters, 2019, 10, 4587-4595.	2.1	20

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19	Solutionâ€Processed Titanium Chelate Used as Both Electrode Modification Layer and Intermediate Layer for Efficient Inverted Tandem Polymer Solar Cells. Chinese Journal of Chemistry, 2018, 36, 194-198.	2.6	19
20	The Effect of Donor and Nonfullerene Acceptor Inhomogeneous Distribution within the Photoactive Layer on the Performance of Polymer Solar Cells with Different Device Structures. Polymers, 2017, 9, 571.	2.0	18
21	BiVO4 semiconductor sensitized solar cells. Science China Chemistry, 2015, 58, 1489-1493.	4.2	17
22	Enhancement of the Interfacial Connection via Carboxylâ€Substituted Perylene as Electronâ€Transport Layer for Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800205.	3.1	17
23	Hydroxyl-Assisted Hydrogen Transfer Interaction in Lignin Pyrolysis: An Extended Concerted Interaction Mechanism. Energy & Fuels, 2021, 35, 13170-13180.	2.5	17
24	Influence of the Porosity of the TiO₂ Film on the Performance of the Perovskite Solar Cell. International Journal of Photoenergy, 2017, 2017, 1-10.	1.4	15
25	Enhanced Open-Circuit Voltage of Cs-Containing FAPbI₃ Perovskite Solar Cells by the Formation of a Seed Layer through a Vapor-Assisted Solution Process. ACS Sustainable Chemistry and Engineering, 2019, 7, 3404-3413.	3.2	14
26	Management of the light distribution within the photoactive layer for high performance conventional and inverted polymer solar cells. Journal of Materials Chemistry A, 2016, 4, 1915-1922.	5.2	12
27	Liquid Crystal Molecule as â€œBinding Agentâ€•Enables Superior Stable Perovskite Solar Cells with High Fill Factor. Solar Rrl, 2019, 3, 1900125.	3.1	10
28	Ion migration in Br-doped MAPbI3 and its inhibition mechanisms investigated via quantum dynamics simulations. Physical Chemistry Chemical Physics, 2020, 22, 7778-7786.	1.3	10
29	First-principles insights into the adsorption and interaction mechanism of selenium on selective catalytic reduction catalyst. Chemosphere, 2021, 275, 130057.	4.2	10
30	Intrinsic mechanism insight of the interaction between lead species and the Vanadium-based catalysts based on First-principles investigation. Journal of Colloid and Interface Science, 2022, 607, 1362-1372.	5.0	8
31	Large scale quantum dynamics investigations on the sensing mechanism of H2O, acetone, NO2 and O3 adsorption on the (MA)2Pb(SCN)2I2 surface. Physical Chemistry Chemical Physics, 2019, 21, 21223-21235.	1.3	7
32	Quantum Dynamics Simulations on the Adsorption Mechanism of Reducing and Oxidizing Gases on the CH 3 NH 3 PbI 3 Surface. Advanced Theory and Simulations, 2020, 3, 2000024.	1.3	5
33	Theoretical Evaluation of the Influence of Molecular Packing Mode on the Intramolecular Reorganization Energy of Oligothiophene Molecules. Polymers, 2018, 10, 30.	2.0	4
34	Theoretical design and simulations of hole transporting materials based on 2,2â€²,7,7â€²-tetrakis(N,N-di-p-methoxyphenyl-amine)9,9â€²-spirobifluorene for organic-inorganic hybrid perovskite solar cells. Computational and Theoretical Chemistry, 2019, 1166, 112575.	1.1	4
35	Interface modification effects using a halide-free lead source for perovskite solar cells. Sustainable Energy and Fuels, 2017, 1, 1358-1365.	2.5	3
36	Understanding the sensing mechanisms of perovskite materials for gases with different properties: a perspective from the oxidationâ€“reduction states of central metal ions. Journal of Materials Chemistry C, 2021, 9, 15511-15521.	2.7	3

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37	Molecular dynamics simulations of the orientation properties of cytochrome c on the surface of single-walled carbon nanotubes. Journal of Molecular Modeling, 2016, 22, 300.	0.8	2
38	Some insights into the self-assembly patterns of two diamine derivatives as low molecular mass organogelators from molecular dynamics. Molecular Simulation, 2017, 43, 1019-1025.	0.9	1
39	Enhanced Electron Injection and Exciton Confinement for Pure Blue Quantum-Dot Light-Emitting Diodes by Introducing Partially Oxidized Aluminum Cathode. Journal of Visualized Experiments, 2018, , .	0.2	1
40	Novel design strategies for perovskite materials with improved stability and suitable band gaps. Physical Chemistry Chemical Physics, 2021, 23, 20288-20297.	1.3	1
41	Influences of phosphorylation on Thr14/Tyr15 in CDK5 in the presence of roscovitine/ATP and HHASPRK. Molecular Simulation, 2012, 38, 248-257.	0.9	0
42	Sensing Mechanism of H2O, NH3, and O2 on the Stability-Improved Cs2Pb(SCN)2Br2 Surface: A Quantum Dynamics Investigation. ACS Omega, 2021, 6, 24244-24255.	1.6	0