Debin Xia

List of Publications by Year
in descending order

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62 papers	1,315 citations	331670 21 h-index	377865 34 g-index
63 all docs	63 docs citations	63 times ranked	1438 citing authors

#	Article	IF	Citations
1	Benzothiophene and benzosulfone fused pyrazino[2,3-g]quinoxaline: Synthesis and semiconducting properties. Chinese Chemical Letters, 2023, 34, 107235.	9.0	6
2	Core-shell structured nAl@F-x nanocomposite: preparation and their improved combustion performances. Journal of Energetic Materials, 2022, 40, 61-81.	2.0	3
3	Li-TFSI endohedral Metal-Organic frameworks in stable perovskite solar cells for Anti-Deliquescent and restricting ion migration. Chemical Engineering Journal, 2022, 429, 132481.	12.7	25
4	The enhanced thermal stability and reduced hygroscopicity of aluminum hydride coated with vinyltrimethoxysilane. New Journal of Chemistry, 2022, 46, 1643-1649.	2.8	5
5	Investigation on the Mechanism of Radical Intermediate Formation and Moderate Oxidation of Spiro-OMeTAD by the Synergistic Effect of Multisubstituted Polyoxometalates in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 17610-17620.	8.0	11
6	Timing matters: pre-assembly versus post-assembly functionalization of a polyoxovanadateâ€“organic cuboid. Chemical Science, 2022, 13, 5718-5725.	7.4	5
7	New Insights into the Catalytic Decomposition of Ammonium Perchlorate and Decomposition Mechanism by Nanoâ€CuO Dispersed in Graphiteâ€Carbon Nitride Nanosheet Composites. ChemNanoMat, 2022, 8, .	2.8	7
8	Suppressing Glassâ€Transition and Lithiumâ€Ions Migration in Hole Transport Layer by V₂O₅ Decorated Graphite Carbon Nitride Nanosheets for Thermally Stable Perovskite Solar Cells. Solar Rrl, 2022, 6, .	5.8	4
9	The Evolution of Classical Spiro-OMeTAD: Synthesis of Arylamine Endcapped Indenone Spirofluorene. Frontiers in Chemistry, 2022, 10, .	3.6	1
10	Selfâ€Organized Small Molecules in Robust MOFs for Highâ€Performance Perovskite Solar Cells with Enhanced Degradation Activation Energy. Advanced Functional Materials, 2022, 32, .	14.9	25
11	Super rigid tris-spirobifluorenes: Syntheses and properties. Chinese Chemical Letters, 2021, 32, 397-400.	9.0	3
12	Chemical doping engineering by utilizing trilacunary Keggin polyoxometalates as a dopant for high performance perovskite solar cells. Dalton Transactions, 2021, 50, 279-286.	3.3	4
13	Highly enhanced H₂ evolution of MoO₃/g-C₃N₄ hybrid composites based on a direct Z-scheme photocatalytic system. Inorganic Chemistry Frontiers, 2021, 8, 1154-1165.	6.0	29
14	Rigidly Fused Spiroâ€Conjugated Ï€â€Systems. ChemPlusChem, 2021, 86, 36-48.	2.8	37
15	Twoâ€Dimensional Metalâ€“Organic Frameworksâ€Based Grain Termination Strategy Enables Highâ€Efficiency Perovskite Photovoltaics with Enhanced Moisture and Thermal Stability. Advanced Functional Materials, 2021, 31, 2010368.	14.9	51
16	Enhanced Charge Transport and Interface Passivation in Efficient Perovskite Solar Cells Using Sulfurâ€Doped Graphite Carbon Nitrideâ€Modified SnO 2 â€Based Electron Transport Layers. Solar Rrl, 2021, 5, 2100058.	5.8	10
17	New insight into the grafted transition metal ions in trilacunary Keggin polyoxometalates dopants for efficient and stable perovskite solar cells. Journal of Power Sources, 2021, 504, 230073.	7.8	11
18	Sulfur-rich benzodithieno[3,2-b]thiophene-cored hole transporting materials for long-time stability of perovskite solar cells. Dyes and Pigments, 2021, 193, 109506.	3.7	6

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19	Construction of Polyoxometalateâ€Based Material for Eliminating Multiple Pbâ€Based Defects and Enhancing Thermal Stability of Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2105884.	14.9	29
20	New Insight into the Lewis Basic Sites in Metalâ€“Organic Framework-Doped Hole Transport Materials for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 5235-5244.	8.0	33
21	Insights into the Mechanism of Solid-State Metal Organic Complexes as Controllable and Stable p-Type Dopants in Efficient Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 546-555.	8.0	15
22	Achieving efficient polymer solar cells based on benzodithiopheneâ€“thiazole-containing wide band gap polymer donors by changing the linkage patterns of two thiazoles. New Journal of Chemistry, 2020, 44, 13100-13107.	2.8	8
23	Thermal decomposition of ammonium perchlorate over perovskite catalysts: Catalytic decomposition behavior, mechanism and application. Applied Surface Science, 2020, 513, 145849.	6.1	58
24	Sulfurâ€Containing Bent Nâ€Heteroacenes. Chemistry - A European Journal, 2019, 25, 15106-15111.	3.3	11
25	Fabrication of hybrid aluminum nanoparticles with organosilicon surface by solvent-free coating approach. Journal of Nanoparticle Research, 2019, 21, 1.	1.9	3
26	Ammonium perchlorate encapsulating nanothermites as high energetic composites: Preparation, thermal decomposition and combustion properties. Chemical Engineering Science, 2019, 207, 334-343.	3.8	45
27	Selfâ€Assembly of Hybrid Oxidant POM@Cuâ€BTC for Enhanced Efficiency and Longâ€Term Stability of Perovskite Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 17610-17615.	13.8	95
28	Cyclooctatetrathiophene-Cored Three-Dimensional Hole Transport Material Enabling Over 19% Efficiency of Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 8173-8180.	5.1	22
29	Selfâ€Assembly of Hybrid Oxidant POM@Cuâ€BTC for Enhanced Efficiency and Longâ€Term Stability of Perovskite Solar Cells. Angewandte Chemie, 2019, 131, 17774-17779.	2.0	4
30	Aluminum nanoparticles manufactured using a ball-milling method with ammonium chloride as a grinding aid: achieving energy release at low temperature. New Journal of Chemistry, 2019, 43, 1851-1856.	2.8	11
31	Enhanced Thermal Decomposition Properties and Catalytic Mechanism of Ammonium Perchlorate over CuO/MoS₂ Composite. Applied Organometallic Chemistry, 2019, 33, e5060.	3.5	14
32	Metal organic framework doped Spiro-OMeTAD with increased conductivity for improving perovskite solar cell performance. Solar Energy, 2019, 188, 380-385.	6.1	24
33	Porous Cr₂O₃ bead with a 3D continuous pore architecture: synthesis and its catalytic performance for decomposition of ammonium perchlorate. New Journal of Chemistry, 2019, 43, 10560-10566.	2.8	5
34	Polyoxometalate-Based Inorganicâ€“Organic Hybrid [Cu(phen)2]2[(Î±-Mo8O26)]: A New Additive to Spiro-OMeTAD for Efficient and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 4224-4233.	5.1	17
35	A Copper Coordination Polymer with Matching Energy Level for Modifying Hole Transport Layers to Improve the Performance of Perovskite Solar Cells. ChemSusChem, 2019, 12, 2763-2772.	6.8	17
36	Synthesis of Ï€â€Conjugated Benzocyclotrimers. Chemical Record, 2019, 19, 2143-2156.	5.8	5

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37	Enhanced Crystallization and Optimized Morphology of Perovskites Through Doping an Indiumâ€Based Metalâ€“Organic Assembly: Achieving Significant Solar Cell Efficiency Enhancements. Energy Technology, 2019, 7, 1900027.	3.8	8
38	Oligofluorene with multiple spiro-connections: its and their use in blue and white OLEDs. New Journal of Chemistry, 2019, 43, 3788-3792.	2.8	9
39	Synthesis and Hydrogen Desorption Properties of Nanoscale Î±-AlH3. Russian Journal of Physical Chemistry A, 2019, 93, 2798-2803.	0.6	8
40	Iodine-doped graphite carbon nitride for enhancing photovoltaic device performance via passivation trap states of triple cation perovskite films. Journal of Materials Chemistry C, 2019, 7, 12717-12724.	5.5	27
41	Indenone-fused N-heteroacenes. Journal of Materials Chemistry C, 2019, 7, 14314-14319.	5.5	16
42	Ball Milling Produced FeF₃â€Containing Nanothermites: Investigations of Its Thermal and Inflaming Properties. ChemistrySelect, 2019, 4, 12662-12667.	1.5	4
43	Catalytic decomposition of ammonium perchlorate on hollow mesoporous CuO microspheres. Vacuum, 2019, 159, 105-111.	3.5	69
44	Tetra-phthalimide end-fused bifluorenylidene: Synthesis and characterization. Chinese Chemical Letters, 2019, 30, 259-262.	9.0	3
45	Doping of [In₂(phen)₃Cl₆]Â·CH₃CNÂ·2H₂O Indiumâ€Based Metalâ€“Organic Framework into Hole Transport Layer for Enhancing Perovskite Solar Cell Efficiencies. Advanced Energy Materials, 2018, 8, 1702052.	19.5	55
46	Boosting the Film Quality by Simultaneously Preâ€wetting the PbI₂ Film and Ostwald Ripening the MAPbI₃ Film with DMSO Addition into MAI Solution. ChemistrySelect, 2018, 3, 4951-4958.	1.5	0
47	Molecular Ordering of Dithieno[2,3-d;2â€²,3â€²-d]benzo[2,1-b:3,4-bâ€²]dithiophenes for Field-Effect Transistors. ACS Omega, 2018, 3, 6513-6522.	3.5	3
48	Keggin-Type PMo₁₁V as a P-type Dopant for Enhancing the Efficiency and Reproducibility of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 2378-2386.	8.0	37
49	Cruciform Electron Acceptors Based on Tetraindeno-Fused Spirofluorene. Crystal Growth and Design, 2017, 17, 2816-2821.	3.0	9
50	SiW₁₂â€“TiO₂ Mesoporous Layer for Enhanced Electronâ€Extraction Efficiency and Conductivity in Perovskite Solar Cells. ChemSusChem, 2017, 10, 2218-2225.	6.8	30
51	Synthesis, structure and optoelectronic properties of rigid 3D tetraindeno-fused spirofluorene with thioxanthene or dioxothioxanthene substitutes. CrystEngComm, 2017, 19, 6752-6757.	2.6	3
52	Improving the Power Efficiency of Solutionâ€Processed Phosphorescent WOLEDs with a Selfâ€Host Blue Iridium Dendrimer. Advanced Optical Materials, 2017, 5, 1700514.	7.3	19
53	Regulated Film Quality with Methylammonium Bromide Addition in a Twoâ€Step Sequential Deposition to Improve the Performance of Perovskite Solar Cells. Energy Technology, 2017, 5, 1873-1879.	3.8	5
54	Synthesis of a quinoidal dithieno[2,3-d;2â€²,3â€²-d]benzo[2,1-b;3,4-bâ€²]-dithiophene based open-shell singlet biradicaloid. Organic Chemistry Frontiers, 2017, 4, 18-21.	4.5	8

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55	Layered Electron Acceptors by Dimerization of Acenes Endâ€•Capped with 1,2,5â€Thiadiazoles. Angewandte Chemie, 2016, 128, 953-956.	2.0	15
56	Layered Electron Acceptors by Dimerization of Acenes Endâ€•Capped with 1,2,5â€Thiadiazoles. Angewandte Chemie - International Edition, 2016, 55, 941-944.	13.8	32
57	Inverted thermal annealing of perovskite films: a method for enhancing photovoltaic device efficiency. RSC Advances, 2016, 6, 44034-44040.	3.6	8
58	Fused Bis-Benzothiadiazoles as Electron Acceptors. Crystal Growth and Design, 2016, 16, 7124-7129.	3.0	11
59	Solution-Processable n-Type Organic Semiconductors Based on Angular-Shaped 2-(12H-Dibenzofluoren-12-ylidene)malononitrilediimide. Organic Letters, 2015, 17, 3074-3077.	4.6	11
60	A spiro-bifluorene based 3D electron acceptor with dicyanovinylene substitution for solution-processed non-fullerene organic solar cells. Journal of Materials Chemistry A, 2015, 3, 11086-11092.	10.3	34
61	Selfâ€Host Blueâ€Emitting Iridium Dendrimer with Carbazole Dendrons: Nondoped Phosphorescent Organic Lightâ€Emitting Diodes. Angewandte Chemie - International Edition, 2014, 53, 1048-1052.	13.8	187
62	Dithieno[2,3-d;2â€²,3â€²-dâ€²]benzo[1,2-b;4,5-bâ€²]dithiophene based organic sensitizers for dye-sensitized solar cells. RSC Advances, 2014, 4, 54130-54133.	3.6	16