

# Weiwei Meng

## List of Publications by Year in descending order

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36  
papers

6,607  
citations

186265  
28  
h-index

330143  
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37  
all docs

37  
docs citations

37  
times ranked

7391  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thin-Film Preparation and Characterization of Cs <sub>3</sub> Sb <sub>2</sub> I <sub>9</sub> : A Lead-Free Layered Perovskite Semiconductor. <i>Chemistry of Materials</i> , 2015, 27, 5622-5632.	6.7	653
2	Lead-Free Inverted Planar Formamidinium Tin Triiodide Perovskite Solar Cells Achieving Power Conversion Efficiencies up to 6.22%. <i>Advanced Materials</i> , 2016, 28, 9333-9340.	21.0	636
3	Searching for promising new perovskite-based photovoltaic absorbers: the importance of electronic dimensionality. <i>Materials Horizons</i> , 2017, 4, 206-216.	12.2	553
4	Employing Lead Thiocyanate Additive to Reduce the Hysteresis and Boost the Fill Factor of Planar Perovskite Solar Cells. <i>Advanced Materials</i> , 2016, 28, 5214-5221.	21.0	487
5	Parity-Forbidden Transitions and Their Impact on the Optical Absorption Properties of Lead-Free Metal Halide Perovskites and Double Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2999-3007.	4.6	441
6	Bandgap Engineering of Lead-Free Double Perovskite Cs <sub>2</sub> AgBiBr <sub>6</sub> through Trivalent Metal Alloying. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8158-8162.	13.8	425
7	Lead-Free Direct Band Gap Double-Perovskite Nanocrystals with Bright Dual-Color Emission. <i>Journal of the American Chemical Society</i> , 2018, 140, 17001-17006.	13.7	399
8	Thin-Film Deposition and Characterization of a Sn-Deficient Perovskite Derivative Cs <sub>2</sub> Sn <sub>6</sub> . <i>Chemistry of Materials</i> , 2016, 28, 2315-2322.	6.7	329
9	Thermodynamic Stability and Defect Chemistry of Bismuth-Based Lead-Free Double Perovskites. <i>ChemSusChem</i> , 2016, 9, 2628-2633.	6.8	273
10	Intrinsic Instability of Cs <sub>2</sub> In(I)M(III)X <sub>6</sub> (M = Bi, Sb; X = Halogen) Double Perovskites: A Combined Density Functional Theory and Experimental Study. <i>Journal of the American Chemical Society</i> , 2017, 139, 6054-6057.	13.7	253
11	Effects of organic cations on the defect physics of tin halide perovskites. <i>Journal of Materials Chemistry A</i> , 2017, 5, 15124-15129.	10.3	213
12	A layered Na <sub>1-x</sub> Ni <sub>y</sub> Fe <sub>1-y</sub> O <sub>2</sub> double oxide oxygen evolution reaction electrocatalyst for highly efficient water-splitting. <i>Energy and Environmental Science</i> , 2017, 10, 121-128.	30.8	201
13	Synergistic Effects of Lead Thiocyanate Additive and Solvent Annealing on the Performance of Wide-Bandgap Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2017, 2, 1177-1182.	17.4	190
14	Atomistic Mechanism of Broadband Emission in Metal Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 501-506.	4.6	190
15	Alloying and Defect Control within Chalcogenide Perovskites for Optimized Photovoltaic Application. <i>Chemistry of Materials</i> , 2016, 28, 821-829.	6.7	175
16	Metal-Organic Framework-Derived CoWP@C Composite Nanowire Electrocatalyst for Efficient Water Splitting. <i>ACS Energy Letters</i> , 2018, 3, 1434-1442.	17.4	141
17	Photovoltaic Properties of Two-Dimensional (CH <sub>3</sub> NH <sub>3</sub> ) <sub>2</sub> Pb(SCN) <sub>2</sub> I <sub>2</sub> Perovskite: A Combined Experimental and Density Functional Theory Study. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1213-1218.	4.6	135
18	Thermally evaporated methylammonium tin triiodide thin films for lead-free perovskite solar cell fabrication. <i>RSC Advances</i> , 2016, 6, 90248-90254.	3.6	114

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19	Trigonal Cu <sub>2</sub> -II-Sn-VI <sub>4</sub> (II = Ba, Sr and VI = S, Se) quaternary compounds for earth-abundant photovoltaics. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 4828-4834.	2.8	94
20	Chemical Origin of the Stability Difference between Copper(I)- and Silver(I)-Based Halide Double Perovskites. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 12107-12111.	13.8	89
21	Chemical Origin of the Stability Difference between Copper(I)- and Silver(I)-Based Halide Double Perovskites. <i>Angewandte Chemie</i> , 2017, 129, 12275-12279.	2.0	79
22	Viability of Lead-Free Perovskites with Mixed Chalcogen and Halogen Anions for Photovoltaic Applications. <i>Journal of Physical Chemistry C</i> , 2016, 120, 6435-6441.	3.1	72
23	Distant-Atom Mutation for Better Earth-Abundant Light Absorbers: A Case Study of Cu <sub>2</sub> BaSnSe <sub>4</sub> . <i>ACS Energy Letters</i> , 2017, 2, 29-35.	17.4	68
24	Bandgap Engineering of Barium Bismuth Niobate Double Perovskite for Photoelectrochemical Water Oxidation. <i>Advanced Energy Materials</i> , 2017, 7, 1602260.	19.5	67
25	Crystal Structure of AgBi <sub>2</sub> I <sub>7</sub> Thin Films. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3903-3907.	4.6	64
26	Employing Overlayers To Improve the Performance of Cu <sub>2</sub> BaSnS <sub>4</sub> Thin Film based Photoelectrochemical Water Reduction Devices. <i>Chemistry of Materials</i> , 2017, 29, 916-920.	6.7	61
27	Bandgap Engineering of Lead-Free Double Perovskite Cs <sub>2</sub> AgBiBr <sub>6</sub> through Trivalent Metal Alloying. <i>Angewandte Chemie</i> , 2017, 129, 8270-8274.	2.0	40
28	Cost-effective hole transporting material for stable and efficient perovskite solar cells with fill factors up to 82%. <i>Journal of Materials Chemistry A</i> , 2017, 5, 23319-23327.	10.3	40
29	Atomistic Insight into the Redox Reactions in Fe/Oxide Core-Shell Nanoparticles. <i>Chemistry of Materials</i> , 2018, 30, 7306-7312.	6.7	28
30	Room-temperature oxygen vacancy migration induced reversible phase transformation during the anelastic deformation in CuO. <i>Nature Communications</i> , 2021, 12, 3863.	12.8	26
31	Electronic band structures and excitonic properties of delafossites: A GW-BSE study. <i>Journal of Applied Physics</i> , 2017, 122, 085104.	2.5	22
32	Surface- and Strain-Mediated Reversible Phase Transformation in Quantum-Confined ZnO Nanowires. <i>Physical Review Letters</i> , 2019, 123, 216101.	7.8	19
33	Stability, Electronic and Optical Properties of M <sub>4</sub> M <sub>2</sub> X <sub>4</sub> (M = Ga or In, M <sup>2+</sup> = Si, Tl) ETQq1 1 0.784314 rgB 10360-10364.	3.1	7
34	Irradiation and Size Effects on Redox Reaction Mechanisms in Iron Oxides. <i>Chemistry of Materials</i> , 2021, 33, 1860-1866.	6.7	7
35	Probing the Crystal and Electronic Structures of Molybdenum Oxide in Redox Process: Implications for Energy Applications. <i>ACS Applied Energy Materials</i> , 2019, 2, 7709-7716.	5.1	6
36	Atomistic insight into ordered defect superstructures at novel grain boundaries in CuO nanosheets: From structures to electronic properties. <i>Nano Research</i> , 2019, 12, 1099-1104.	10.4	6