Yuhang Liu

List of Publications by Year in Descending Order

35 papers	2,276 citations	20 h-index	36 g-index
36 ext. papers	3,363 ext. citations	16.9 avg, IF	5.23 L-index

#	Paper	IF	Citations
35	Conformal quantum dot-SnO layers as electron transporters for efficient perovskite solar cells.. *Science*, **2022**, 375, 302-306	33.3	181
34	Interface modification to achieve high-efficiency and stable perovskite solar cells. *Chemical Engineering Journal*, **2022**, 433, 134613	14.7	4
33	Efficient and Stable Large Bandgap MAPbBr3 Perovskite Solar Cell Attaining an Open Circuit Voltage of 1.65 V. *ACS Energy Letters*, **2022**, 7, 1112-1119	20.1	4
32	Combined Precursor Engineering and Grain Anchoring Leading to MA-Free, Phase-Pure, and Stable Formamidinium Lead Iodide Perovskites for Efficient Solar Cells. *Angewandte Chemie - International Edition*, **2021**, 60, 27299	16.4	10
31	The Rise of Dye-Sensitized Solar Cells: From Molecular Photovoltaics to Emerging Solid-State Photovoltaic Technologies. *Helvetica Chimica Acta*, **2021**, 104, e2000230	2	8
30	Organic Ammonium Halide Modulators as Effective Strategy for Enhanced Perovskite Photovoltaic Performance. *Advanced Science*, **2021**, 8, 2004593	13.6	12
29	Chemically tailored molecular surface modifiers for efficient and stable perovskite photovoltaics. *SmartMat*, **2021**, 2, 33-37	22.8	18
28	Cyclopentadiene-Based Hole-Transport Material for Cost-Reduced Stabilized Perovskite Solar Cells with Power Conversion Efficiencies Over 23%. *Advanced Energy Materials*, **2021**, 11, 2003953	21.8	4
27	Flexible perovskite solar cells with simultaneously improved efficiency, operational stability, and mechanical reliability. *Joule*, **2021**, 5, 1587-1601	27.8	45
26	Low-Cost Dopant Additive-Free Hole-Transporting Material for a Robust Perovskite Solar Cell with Efficiency Exceeding 21%. *ACS Energy Letters*, **2021**, 6, 208-215	20.1	30
25	Modulation of perovskite crystallization processes towards highly efficient and stable perovskite solar cells with MXene quantum dot-modified SnO2. *Energy and Environmental Science*, **2021**, 14, 3447-3454	25.4	38
24	Synergistic Effect of Fluorinated Passivator and Hole Transport Dopant Enables Stable Perovskite Solar Cells with an Efficiency Near 24. *Journal of the American Chemical Society*, **2021**, 143, 3231-3237	16.4	73
23	Nanoscale Phase Segregation in Supramolecular Templating for Hybrid Perovskite Photovoltaics from NMR Crystallography. *Journal of the American Chemical Society*, **2021**, 143, 1529-1538	16.4	26
22	Stabilization of Highly Efficient and Stable Phase-Pure FAPbI Perovskite Solar Cells by Molecularly Tailored 2D-Overlayers. *Angewandte Chemie - International Edition*, **2020**, 59, 15688-15694	16.4	115
21	High-Performance Lead-Free Solar Cells Based on Tin-Halide Perovskite Thin Films Functionalized by a Divalent Organic Cation. *ACS Energy Letters*, **2020**, 5, 2223-2230	20.1	60
20	Stabilization of Highly Efficient and Stable Phase-Pure FAPbI3 Perovskite Solar Cells by Molecularly Tailored 2D-Overlayers. *Angewandte Chemie*, **2020**, 132, 15818-15824	3.6	11
19	Cyclopentadithiophene-Based Hole-Transporting Material for Highly Stable Perovskite Solar Cells with Stabilized Efficiencies Approaching 21%. *ACS Applied Energy Materials*, **2020**, 3, 7456-7463	6.1	14

18	CuO photocathodes with band-tail states assisted hole transport for standalone solar water splitting. *Nature Communications*, **2020**, 11, 318	17.4	70
17	Vapor-assisted deposition of highly efficient, stable black-phase FAPbI perovskite solar cells. *Science*, **2020**, 370,	33.3	257
16	Molecular Engineering of Simple Metal-Free Organic Dyes Derived from Triphenylamine for Dye-Sensitized Solar Cell Applications. *ChemSusChem*, **2020**, 13, 212-220	8.3	16
15	Intermediate Phase Enhances Inorganic Perovskite and Metal Oxide Interface for Efficient Photovoltaics. *Joule*, **2020**, 4, 222-234	27.8	55
14	Guanine-Stabilized Formamidinium Lead Iodide Perovskites. *Angewandte Chemie - International Edition*, **2020**, 59, 4691-4697	16.4	40
13	Guanine-Stabilized Formamidinium Lead Iodide Perovskites. *Angewandte Chemie*, **2020**, 132, 4721-4727	3.6	
12	Minimizing the Trade-Off between Photocurrent and Photovoltage in Triple-Cation Mixed-Halide Perovskite Solar Cells. *Journal of Physical Chemistry Letters*, **2020**, 11, 10188-10195	6.4	20
11	Tailored Amphiphilic Molecular Mitigators for Stable Perovskite Solar Cells with 23.5% Efficiency. *Advanced Materials*, **2020**, 32, e1907757	24	178
10	Ultrahydrophobic 3D/2D fluoroarene bilayer-based water-resistant perovskite solar cells with efficiencies exceeding 22. *Science Advances*, **2019**, 5, eaaw2543	14.3	362
9	SnS Quantum Dots as Hole Transporter of Perovskite Solar Cells. *ACS Applied Energy Materials*, **2019**, 2, 3822-3829	6.1	17
8	Low-Cost and Highly Efficient Carbon-Based Perovskite Solar Cells Exhibiting Excellent Long-Term Operational and UV Stability. *Small*, **2019**, 15, e1904746	11	53
7	Comprehensive control of voltage loss enables 11.7% efficient solid-state dye-sensitized solar cells. *Energy and Environmental Science*, **2018**, 11, 1779-1787	35.4	112
6	Direct Contact of Selective Charge Extraction Layers Enables High-Efficiency Molecular Photovoltaics. *Joule*, **2018**, 2, 1108-1117	27.8	189
5	Electron-Affinity-Triggered Variations on the Optical and Electrical Properties of Dye Molecules Enabling Highly Efficient Dye-Sensitized Solar Cells. *Angewandte Chemie*, **2018**, 130, 14321-14324	3.6	17
4	Electron-Affinity-Triggered Variations on the Optical and Electrical Properties of Dye Molecules Enabling Highly Efficient Dye-Sensitized Solar Cells. *Angewandte Chemie - International Edition*, **2018**, 57, 14125-14128	16.4	42
3	Hydrothermally processed CuCrO2 nanoparticles as an inorganic hole transporting material for low-cost perovskite solar cells with superior stability. *Journal of Materials Chemistry A*, **2018**, 6, 20327-20337	13	55
2	Improving the stability and performance of perovskite solar cells via off-the-shelf post-device ligand treatment. *Energy and Environmental Science*, **2018**, 11, 2253-2262	35.4	137
1	Combined Precursor Engineering and Grain Anchoring Leading to MA-Free, Phase-Pure, and Stable Formamidinium Lead Iodide Perovskites for Efficient Solar Cells. *Angewandte Chemie*,	3.6	3