Rahim Munir

List of Publications by Year
in descending order

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47 papers	5,038 citations	172443 29 h-index	254170 43 g-index
49 all docs	49 docs citations	49 times ranked	6672 citing authors

#	Article	IF	Citations
1	Stable Highâ€Performance Perovskite Solar Cells via Grain Boundary Passivation. Advanced Materials, 2018, 30, e1706576.	21.0	665
2	Stable high efficiency two-dimensional perovskite solar cells via cesium doping. Energy and Environmental Science, 2017, 10, 2095-2102.	30.8	588
3	Hybrid organicâ€“inorganic inks flatten the energy landscape in colloidal quantum dotÂsolids. Nature Materials, 2017, 16, 258-263.	27.5	563
4	Compositional and orientational control in metal halide perovskites of reduced dimensionality. Nature Materials, 2018, 17, 900-907.	27.5	351
5	2D matrix engineering for homogeneous quantum dot coupling in photovoltaic solids. Nature Nanotechnology, 2018, 13, 456-462.	31.5	252
6	Phase Transition Control for High Performance Ruddlesdenâ€“Popper Perovskite Solar Cells. Advanced Materials, 2018, 30, e1707166.	21.0	244
7	Multi-inch single-crystalline perovskite membrane for high-detectivity flexible photosensors. Nature Communications, 2018, 9, 5302.	12.8	212
8	Lattice anchoring stabilizes solution-processed semiconductors. Nature, 2019, 570, 96-101.	27.8	208
9	Phase Transition Control for High-Performance Blade-Coated Perovskite Solar Cells. Joule, 2018, 2, 1313-1330.	24.0	180
10	Blade-Coated Hybrid Perovskite Solar Cells with Efficiency > 17%: An In Situ Investigation. ACS Energy Letters, 2018, 3, 1078-1085.	17.4	171
11	Hybrid Perovskite Thinâ€Film Photovoltaics: In Situ Diagnostics and Importance of the Precursor Solvate Phases. Advanced Materials, 2017, 29, 1604113.	21.0	155
12	Efficient near-infrared light-emitting diodes based on quantum dots in layered perovskite. Nature Photonics, 2020, 14, 227-233.	31.4	136
13	An open-access database and analysis tool for perovskite solar cells based on the FAIR data principles. Nature Energy, 2022, 7, 107-115.	39.5	136
14	Enhanced Electrical Conductivity of Molecularly p-Doped Poly(3-hexylthiophene) through Understanding the Correlation with Solid-State Order. Macromolecules, 2017, 50, 8140-8148.	4.8	135
15	20.8% Slotâ€Die Coated MAPbI₃ Perovskite Solar Cells by Optimal DMSOâ€Content and Age of 2â€ME Based Precursor Inks. Advanced Energy Materials, 2021, 11, 2003460.	19.5	122
16	Organic Gelators as Growth Control Agents for Stable and Reproducible Hybrid Perovskiteâ€Based Solar Cells. Advanced Energy Materials, 2017, 7, 1602600.	19.5	78
17	Kinetic Stabilization of the Solâ€“Gel State in Perovskites Enables Facile Processing of Highâ€Efficiency Solar Cells. Advanced Materials, 2019, 31, e1808357.	21.0	76
18	Conducting and Stretchable PEDOT:PSS Electrodes: Role of Additives on Self-Assembly, Morphology, and Transport. ACS Applied Materials & Interfaces, 2019, 11, 17570-17582.	8.0	72

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19	Compositional and Interfacial Engineering Yield High-Performance and Stable p-i-n Perovskite Solar Cells and Mini-Modules. ACS Applied Materials & Interfaces, 2021, 13, 13022-13033.	8.0	69
20	Effects of High Temperature and Thermal Cycling on the Performance of Perovskite Solar Cells: Acceleration of Charge Recombination and Deterioration of Charge Extraction. ACS Applied Materials & Interfaces, 2017, 9, 35018-35029.	8.0	62
21	Controlled Steric Hindrance Enables Efficient Ligand Exchange for Stable, Infrared-Bandgap Quantum Dot Inks. ACS Energy Letters, 2019, 4, 1225-1230.	17.4	54
22	Improved Morphology and Efficiency of nâ€“iâ€“p Planar Perovskite Solar Cells by Processing with Glycol Ether Additives. ACS Energy Letters, 2017, 2, 1960-1968.	17.4	47
23	Alkali Salts as Interface Modifiers in nâ€iâ€p Hybrid Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900088.	5.8	47
24	The Roles of Structural Order and Intermolecular Interactions in Determining Ionization Energies and Chargeâ€Transfer State Energies in Organic Semiconductors. Advanced Energy Materials, 2016, 6, 1601211.	19.5	45
25	Hybrid perovskite crystallization from binary solvent mixtures: interplay of evaporation rate and binding strength of solvents. Materials Advances, 2020, 1, 3314-3321.	5.4	44
26	Bismuthâ€Based Perovskiteâ€Inspired Solar Cells: In Situ Diagnostics Reveal Similarities and Differences in the Film Formation of Bismuthâ€and Leadâ€Based Films. Solar Rrl, 2019, 3, 1800305.	5.8	41
27	Mesostructured Fullerene Electrodes for Highly Efficient nâ€“iâ€“p Perovskite Solar Cells. ACS Energy Letters, 2016, 1, 1049-1056.	17.4	37
28	Programmable and coherent crystallization of semiconductors. Science Advances, 2017, 3, e1602462.	10.3	35
29	Wide and Tunable Bandgap MAPbBr_{3â”‚x}Cl_x Hybrid Perovskites with Enhanced Phase Stability: In Situ Investigation and Photovoltaic Devices. Solar Rrl, 2021, 5, 2000718.	5.8	32
30	In situ study of the film formation mechanism of organicâ€“inorganic hybrid perovskite solar cells: controlling the solvate phase using an additive system. Journal of Materials Chemistry A, 2020, 8, 7695-7703.	10.3	29
31	Solution-processable MoOx nanocrystals enable highly efficient reflective and semitransparent polymer solar cells. Nano Energy, 2016, 28, 277-287.	16.0	27
32	Hybrid perovskite solar cells: In situ investigation of solution-processed PbI₂ reveals metastable precursors and a pathway to producing porous thin films. Journal of Materials Research, 2017, 32, 1899-1907.	2.6	26
33	Facile Doping and Workâ€Function Modification of Fewâ€Layer Graphene Using Molecular Oxidants and Reductants. Advanced Functional Materials, 2017, 27, 1602004.	14.9	25
34	Study on the enhanced and stable field emission behavior of a novel electrosprayed Al-doped ZnO bilayer film. RSC Advances, 2014, 4, 9072.	3.6	18
35	Zinc Oxide-Perylene Diimide Hybrid Electron Transport Layers for Air-Processed Inverted Organic Photovoltaic Devices. ACS Applied Materials & Interfaces, 2021, 13, 49096-49103.	8.0	18
36	Airâ€Processed Organic Photovoltaics for Outdoor and Indoor Use Based upon a Tin Oxideâ€Perylene Diimide Electron Transporting Bilayer. Advanced Materials Interfaces, 2022, 9, .	3.7	12

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37	Facile and noninvasive passivation, doping and chemical tuning of macroscopic hybrid perovskite crystals. PLoS ONE, 2020, 15, e0230540.	2.5	9
38	Processing of Lead Halide Perovskite Thin Films Studied with In-Situ Real-Time X-ray Scattering. ACS Applied Materials & Interfaces, 2022, 14, 26315-26326.	8.0	5
39	Characterization of Cu2ZnSnSe4 Thin Films Selenized with Cu2-xSe/ SnSe2/ZnSe and Cu/SnSe2/ZnSe Stacks. Korean Journal of Materials Research, 2013, 23, 183~189-183~189.	0.2	4
40	Ultra-low p-doping of poly(3-hexylthiophene) and its impact on polymer aggregation and photovoltaic performance. Organic Photonics and Photovoltaics, 2016, 4, .	1.3	3
41	Perovskite Photovoltaics: Hybrid Perovskite Thinâ€Film Photovoltaics: In Situ Diagnostics and Importance of the Precursor Solvate Phases (Adv. Mater. 2/2017). Advanced Materials, 2017, 29, .	21.0	3
42	Energy Focus: Earth-abundant photocorrosion-resistant material used for solar water splitting. MRS Bulletin, 2018, 43, 9-9.	3.5	1
43	Bio Focus: Health monitoring reaches new heights with human trials of ingestible sensor. MRS Bulletin, 2018, 43, 256-256.	3.5	0
44	Energy Focus: Semitransparent organic PV generates power while reducing heat. MRS Bulletin, 2018, 43, 646-647.	3.5	0
45	Bio Focus: Stretchable organic electronics on skin monitors health. MRS Bulletin, 2018, 43, 321-321.	3.5	0
46	Energy Focus: Fast-charging 3D battery developed by bottom-up nanofabrication. MRS Bulletin, 2018, 43, 571-572.	3.5	0
47	Nano Focus: Detoxifying the oceans by using reused polystyrene. MRS Bulletin, 2018, 43, 399-400.	3.5	0