Mahshid Ahmadi

List of Publications by Year
in descending order

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72 papers	2,510 citations	201385 27 h-index	205818 48 g-index
75 all docs	75 docs citations	75 times ranked	3797 citing authors

#	Article	IF	Citations
1	Guanidinium-Pseudohalide Perovskite Interfaces Enable Surface Reconstruction of Colloidal Quantum Dots for Efficient and Stable Photovoltaics. ACS Nano, 2022, 16, 1649-1660.	7.3	18
2	12-Crown-4 ether assisted in-situ grown perovskite crystals for ambient stable light emitting diodes. Nano Energy, 2022, 95, 107000.	8.2	11
3	Origin of Defects and Positron Annihilation in Hybrid and All-Inorganic Perovskites. Chemistry of Materials, 2022, 34, 297-306.	3.2	7
4	Dynamic control of ferroionic states in ferroelectric nanoparticles. Acta Materialia, 2022, 237, 118138.	3.8	2
5	Direct Observation of Photoinduced Ion Migration in Lead Halide Perovskites. Advanced Functional Materials, 2021, 31, 2008777.	7.8	41
6	Improved Radiation Sensing with Methylammonium Lead Tribromide Perovskite Semiconductors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 986, 164710.	0.7	10
7	Unraveling the Energy Landscape and Energy Funneling Modulated by Hole Transport Layer for Highly Efficient Perovskite LEDs. Laser and Photonics Reviews, 2021, 15, 2000495.	4.4	20
8	Correlating Crystallographic Orientation and Ferroic Properties of Twin Domains in Metal Halide Perovskites. ACS Nano, 2021, 15, 7139-7148.	7.3	14
9	Strain in Metal Halide Perovskites: The Critical Role of A-Site Cation. ACS Applied Energy Materials, 2021, 4, 2068-2072.	2.5	14
10	Role of Decomposition Product Ions in Hysteretic Behavior of Metal Halide Perovskite. ACS Nano, 2021, 15, 9017-9026.	7.3	13
11	Ferroelectric and Charge Transport Properties in Strain-Engineered Two-Dimensional Lead Iodide Perovskites. Chemistry of Materials, 2021, 33, 4077-4088.	3.2	10
12	Navigating grain boundaries in perovskite solar cells. Matter, 2021, 4, 1442-1445.	5.0	12
13	Exploring Responses of Contact Kelvin Probe Force Microscopy in Triple-Cation Double-Halide Perovskites. Journal of Physical Chemistry C, 2021, 125, 12355-12365.	1.5	3
14	Ferroic Halide Perovskite Optoelectronics. Advanced Functional Materials, 2021, 31, 2102793.	7.8	23
15	Exploring Transport Behavior in Hybrid Perovskites Solar Cells via Machine Learning Analysis of Environmentalâ€Dependent Impedance Spectroscopy. Advanced Science, 2021, 8, e2002510.	5.6	23
16	Elucidating the Spatial Dynamics of Charge Carriers in Quasi-Two-Dimensional Perovskites. ACS Applied Materials & Interfaces, 2021, 13, 35133-35141.	4.0	12
17	Ferroic Halide Perovskite Optoelectronics (Adv. Funct. Mater. 36/2021). Advanced Functional Materials, 2021, 31, 2170263.	7.8	1
18	Flaxseed Oil Supplementation Augments Antioxidant Capacity and Alleviates Oxidative Stress: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. Evidence-based Complementary and Alternative Medicine, 2021, 2021, 1-9.	0.5	13

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19	The deep-DRT: A deep neural network approach to deconvolve the distribution of relaxation times from multidimensional electrochemical impedance spectroscopy data. Electrochimica Acta, 2021, 392, 139010.	2.6	43
20	Unraveling the hysteretic behavior at double cations-double halides perovskite - electrode interfaces. Nano Energy, 2021, 89, 106428.	8.2	11
21	Machine learning for high-throughput experimental exploration of metal halide perovskites. Joule, 2021, 5, 2797-2822.	11.7	44
22	Exploring the physics of cesium lead halide perovskite quantum dots via Bayesian inference of the photoluminescence spectra in automated experiment. Nanophotonics, 2021, 10, 1977-1989.	2.9	15
23	Microstructural Evaluation of Phase Instability in Large Bandgap Metal Halide Perovskites. ACS Nano, 2021, 15, 20391-20402.	7.3	8
24	High-Throughput Study of Antisolvents on the Stability of Multicomponent Metal Halide Perovskites through Robotics-Based Synthesis and Machine Learning Approaches. Journal of the American Chemical Society, 2021, 143, 19945-19955.	6.6	35
25	Chemical Robotics Enabled Exploration of Stability in Multicomponent Lead Halide Perovskites via Machine Learning. ACS Energy Letters, 2020, 5, 3426-3436.	8.8	66
26	Super-resolution and signal separation in contact Kelvin probe force microscopy of electrochemically active ferroelectric materials. Journal of Applied Physics, 2020, 128, 055101.	1.1	6
27	Giant isotope effect on phonon dispersion and thermal conductivity in methylammonium lead iodide. Science Advances, 2020, 6, eaaz1842.	4.7	17
28	Hysteretic Ion Migration and Remanent Field in Metal Halide Perovskites. Advanced Science, 2020, 7, 2001176.	5.6	29
29	Deciphering the effect of traps on electronic charge transport properties of methylammonium lead tribromide perovskite. Science Advances, 2020, 6, .	4.7	47
30	Exploration of Electrochemical Reactions at Organicâ€“Inorganic Halide Perovskite Interfaces via Machine Learning in In Situ Timeâ€ofâ€Flight Secondary Ion Mass Spectrometry. Advanced Functional Materials, 2020, 30, 2001995.	7.8	30
31	Strainâ€“Chemical Gradient and Polarization in Metal Halide Perovskites. Advanced Electronic Materials, 2020, 6, 1901235.	2.6	19
32	Imaging mechanism for hyperspectral scanning probe microscopy via Gaussian process modelling. Npj Computational Materials, 2020, 6, .	3.5	19
33	High-performance blue perovskite light-emitting diodes based on the â€œfar-field plasmonic effectâ€•of gold nanoparticles. Journal of Materials Chemistry C, 2020, 8, 6615-6622.	2.7	11
34	Estimating Preisach Density via Subset Selection. IEEE Access, 2020, 8, 61767-61774.	2.6	1
35	Multi-Model Imaging of Local Chemistry and Ferroic Properties of Hybrid Organic-Inorganic Perovskites. Microscopy and Microanalysis, 2019, 25, 2076-2077.	0.2	3
36	Toward Electrochemical Studies on the Nanometer and Atomic Scales: Progress, Challenges, and Opportunities. ACS Nano, 2019, 13, 9735-9780.	7.3	32

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37	Spatially Resolved Carrier Dynamics at MAPbBr₃ Single Crystalâ€“Electrode Interface. ACS Applied Materials & Interfaces, 2019, 11, 41551-41560.	4.0	23
38	Lightâ€Ferroic Interaction in Hybrid Organicâ€“Inorganic Perovskites. Advanced Optical Materials, 2019, 7, 1901451.	3.6	24
39	Poly(ethylene oxide)-assisted energy funneling for efficient perovskite light emission. Journal of Materials Chemistry C, 2019, 7, 8287-8293.	2.7	11
40	Deconvolving distribution of relaxation times, resistances and inductance from electrochemical impedance spectroscopy via statistical model selection: Exploiting structural-sparsity regularization and data-driven parameter tuning. Electrochimica Acta, 2019, 313, 570-583.	2.6	68
41	Methylammonium lead tribromide semiconductors: Ionizing radiation detection and electronic properties. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 927, 401-406.	0.7	37
42	Deep levels, charge transport and mixed conductivity in organometallic halide perovskites. Energy and Environmental Science, 2019, 12, 1413-1425.	15.6	60
43	Environmental Gating and Galvanic Effects in Single Crystals of Organicâ€“Inorganic Halide Perovskites. ACS Applied Materials & Interfaces, 2019, 11, 14722-14733.	4.0	14
44	Improved Radiation Sensing with Methylammonium Lead Bromide Perovskite Semiconductors. , 2019, , .		1
45	Lightâ€“Ferroic Interaction: Lightâ€Ferroic Interaction in Hybrid Organicâ€“Inorganic Perovskites (Advanced Optical Materials 23/2019). Advanced Optical Materials, 2019, 7, 1970090.	3.6	1
46	Reply to: On the ferroelectricity of CH3NH3PbI3 perovskites. Nature Materials, 2019, 18, 1051-1053.	13.3	21
47	High performance and stable all-inorganic perovskite light emitting diodes by reducing luminescence quenching at PEDOT:PSS/Perovskites interface. Organic Electronics, 2019, 64, 47-53.	1.4	66
48	Exploring Anomalous Polarization Dynamics in Organometallic Halide Perovskites. Advanced Materials, 2018, 30, 1705298.	11.1	44
49	Precursor purity effects on solution-based growth of MAPbBr₃ single crystals towards efficient radiation sensing. CrystEngComm, 2018, 20, 7818-7825.	1.3	43
50	Giant current amplification induced by ion migration in perovskite single crystal photodetectors. Journal of Materials Chemistry C, 2018, 6, 8042-8050.	2.7	31
51	Chemical nature of ferroelastic twin domains in CH3NH3PbI3 perovskite. Nature Materials, 2018, 17, 1013-1019.	13.3	183
52	Dynamic behavior of CH3NH3PbI3 perovskite twin domains. Applied Physics Letters, 2018, 113, .	1.5	27
53	Time resolved surface photovoltage measurements using a big data capture approach to KPFM. Nanotechnology, 2018, 29, 445703.	1.3	36
54	Charge-transfer versus energy-transfer in quasi-2D perovskite light-emitting diodes. Nano Energy, 2018, 50, 615-622.	8.2	103

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55	Dynamic Impact of Electrode Materials on Interface of Singleâ€Crystalline Methylammonium Lead Bromide Perovskite. Advanced Materials Interfaces, 2018, 5, 1800476.	1.9	31
56	Simultaneously enhancing dissociation and suppressing recombination in perovskite solar cells. Nano Energy, 2017, 36, 95-101.	8.2	27
57	Exploring spin-orbital coupling effects on photovoltaic actions in Sn and Pb based perovskite solar cells. Nano Energy, 2017, 38, 297-303.	8.2	42
58	Elucidating the relationship between crystallo-chemistry and optical properties of CIGS nanocrystals. Nanotechnology, 2017, 28, 045708.	1.3	4
59	Photoinduced Bulk Polarization and Its Effects on Photovoltaic Actions in Perovskite Solar Cells. ACS Nano, 2017, 11, 11542-11549.	7.3	44
60	A Review on Organicâ€“Inorganic Halide Perovskite Photodetectors: Device Engineering and Fundamental Physics. Advanced Materials, 2017, 29, 1605242.	11.1	590
61	Breaking the Time Barrier in Kelvin Probe Force Microscopy: Fast Free Force Reconstruction Using the G-Mode Platform. ACS Nano, 2017, 11, 8717-8729.	7.3	67
62	Metal/Ion Interactions Induced pâ€“iâ€“n Junction in Methylammonium Lead Triiodide Perovskite Single Crystals. Journal of the American Chemical Society, 2017, 139, 17285-17288.	6.6	32
63	Effect of Photogenerated Dipoles in the Hole Transport Layer on Photovoltaic Performance of Organicâ€“Inorganic Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1601575.	10.2	54
64	N and p-type properties in organo-metal halide perovskites studied by Seebeck effects. Organic Electronics, 2016, 35, 216-220.	1.4	15
65	Synthesis of Cu₂SnSe₃ Nanocrystals for Solution Processable Photovoltaic Cells. Inorganic Chemistry, 2013, 52, 1722-1728.	1.9	51
66	Evolution Pathway of CIGSe Nanocrystals for Solar Cell Applications. Journal of Physical Chemistry C, 2012, 116, 8202-8209.	1.5	55
67	Solution processable nanoparticles as high-k dielectric for organic field effect transistors. Organic Electronics, 2010, 11, 1660-1667.	1.4	11
68	Study of Er-Doped ZnS Quantum Dots Synthesized by Chemical Capping Method. Japanese Journal of Applied Physics, 2008, 47, 5089-5092.	0.8	8
69	Engineering Hybrid Perovskite Materials for Spectroscopic Sensing of Ionizing Radiation. , 0, , .		0
70	Spatially Resolved Carrier Dynamics and Associated Chemical Changes at Hybrid Organic-inorganic Perovskite/Electrode Interfaces. , 0, , .		0
71	Engineering Hybrid Perovskite Materials for Spectroscopic Sensing of Ionizing Radiation. , 0, , .		0
72	Lightâ€“ferroelectric interaction in two-dimensional lead iodide perovskites. Journal of Materials Chemistry A, 0, , .	5.2	1