Makhsud I Saidaminov

List of Publications by Year
in descending order

107 papers	18,335 citations	26630 56 h-index	33894 99 g-index
109 all docs	109 docs citations	109 times ranked	15321 citing authors

#	Article	IF	Citations
1	Bismuth Stabilizes the Î±-Phase of Formamidinium Lead Iodide Perovskite Single Crystals. , 2022, 4, 707-712.		10
2	High-throughput exploration of halide perovskite compositionally-graded films and degradation mechanisms. Communications Materials, 2022, 3, .	6.9	14
3	Orthorhombic Nonâ€Perovskite CsPbI₃ Microwires for Stable Highâ€Resolution Xâ€Ray Detectors. Advanced Optical Materials, 2022, 10, .	7.3	14
4	Inhibition of Amineâ€"Water Proton Exchange Stabilizes Perovskite Ink for Scalable Solar Cell Fabrication. Chemistry of Materials, 2022, 34, 4394-4402.	6.7	5
5	High-Throughput Synthesis of Thin Films for the Discovery of Energy Materials: A Perspective. ACS Materials Au, 2022, 2, 516-524.	6.0	6
6	Scalable Fabrication of Metal Halide Perovskites for Direct X-ray Flat-Panel Detectors: A Perspective. Chemistry of Materials, 2022, 34, 5323-5333.	6.7	22
7	Flexible all-perovskite tandem solar cells approaching 25% efficiency with molecule-bridged hole-selective contact. Nature Energy, 2022, 7, 708-717.	39.5	171
8	Coupling Perovskite Quantum Dot Pairs in Solution using a Nanoplasmonic Assembly. Nano Letters, 2022, 22, 5287-5293.	9.1	1
9	Deepâ€Blue Perovskite Singleâ€Mode Lasing through Efficient Vaporâ€Assisted Chlorination. Advanced Materials, 2021, 33, e2006697.	21.0	30
10	Perovskite Single-Crystal Solar Cells: Going Forward. ACS Energy Letters, 2021, 6, 631-642.	17.4	74
11	High length-to-width aspect ratio lead bromide microwires <i>via</i> perovskite-induced local concentration gradient for X-ray detection. CrystEngComm, 2021, 23, 2215-2221.	2.6	3
12	Tin Halide Perovskites Going Forward: Frost Diagrams Offer Hints. , 2021, 3, 299-307.		58
13	Dark Self-Healing-Mediated Negative Photoconductivity of a Lead-Free Cs₃Bi₂Cl₉ Perovskite Single Crystal. Journal of Physical Chemistry Letters, 2021, 12, 2286-2292.	4.6	51
14	^{DMP}DABâ€"Pdâ€"MAH: A Versatile Pd(0) Source for Precatalyst Formation, Reaction Screening, and Preparative-Scale Synthesis. ACS Catalysis, 2021, 11, 5636-5646.	11.2	21
15	Electro-Optic Modulation Using Metal-Free Perovskites. ACS Applied Materials & Interfaces, 2021, 13, 19042-19047.	8.0	12
16	Carbon-based all-inorganic perovskite solar cells: Progress, challenges and strategies toward 20% efficiency. Materials Today, 2021, 50, 239-258.	14.2	33
17	Allâ€Inorganic Quantumâ€Dot LEDs Based on a Phaseâ€Stabilized Î±â€CsPbI 3 Perovskite. Angewandte Chemie, 2021, 133, 16300-16306.	2.0	1
18	Advances in Lead-Free Perovskite Single Crystals: Fundamentals and Applications. , 2021, 3, 1025-1080.		70

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19	Allâ€Inorganic Quantumâ€Dot LEDs Based on a Phaseâ€Stabilized Î±â€CsPbI₃ Perovskite. Angewandte Chemie - International Edition, 2021, 60, 16164-16170.	13.8	210
20	Perovskite Solar Cells with Polyaniline Hole Transport Layers Surpassing a 20% Power Conversion Efficiency. Chemistry of Materials, 2021, 33, 4679-4687.	6.7	34
21	Quantum Dot Selfâ€Assembly Enables Lowâ€Threshold Lasing. Advanced Science, 2021, 8, e2101125.	11.2	28
22	Stimuli-responsive switchable halide perovskites: Taking advantage of instability. Joule, 2021, 5, 2027-2046.	24.0	56
23	Magnetic optical rotary dispersion and magnetic circular dichroism in methylammonium lead halide perovskites. Chirality, 2021, 33, 610-617.	2.6	8
24	Competing Crystallization in Multi-ion Perovskites. , 2021, , .		0
25	Edge stabilization in reduced-dimensional perovskites. Nature Communications, 2020, 11, 170.	12.8	147
26	Bright high-colour-purity deep-blue carbon dot light-emitting diodes via efficient edge amination. Nature Photonics, 2020, 14, 171-176.	31.4	303
27	Narrow Emission from Rb₃Sb₂I₉ Nanoparticles. Advanced Optical Materials, 2020, 8, 1901606.	7.3	18
28	All-perovskite tandem solar cells with 24.2% certified efficiency and area over 1â€‰cm2 using surface-anchoring zwitterionic antioxidant. Nature Energy, 2020, 5, 870-880.	39.5	497
29	Bromine Incorporation and Suppressed Cation Rotation in Mixed-Halide Perovskites. ACS Nano, 2020, 14, 15107-15118.	14.6	23
30	Strain Engineering in Halide Perovskites. , 2020, 2, 1495-1508.		89
31	Dual Coordination of Ti and Pb Using Bilinkable Ligands Improves Perovskite Solar Cell Performance and Stability. Advanced Functional Materials, 2020, 30, 2005155.	14.9	33
32	Suppression of Auger Recombination by Gradient Alloying in InAs/CdSe/CdS QDs. Chemistry of Materials, 2020, 32, 7703-7709.	6.7	15
33	Stable, Bromine-Free, Tetragonal Perovskites with 1.7 eV Bandgaps via A-Site Cation Substitution. , 2020, 2, 869-872.		18
34	Single-Precursor Intermediate Shelling Enables Bright, Narrow Line Width InAs/InZnP-Based QD Emitters. Chemistry of Materials, 2020, 32, 2919-2925.	6.7	13
35	Chloride Insertionâ€“Immobilization Enables Bright, Narrowband, and Stable Blue-Emitting Perovskite Diodes. Journal of the American Chemical Society, 2020, 142, 5126-5134.	13.7	116
36	Chiral-perovskite optoelectronics. Nature Reviews Materials, 2020, 5, 423-439.	48.7	445

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37	Efficient tandem solar cells with solution-processed perovskite on textured crystalline silicon. Science, 2020, 367, 1135-1140.	12.6	525
38	Ultrasensitive and stable X-ray detection using zero-dimensional lead-free perovskites. Journal of Energy Chemistry, 2020, 49, 299-306.	12.9	148
39	Enhanced optical path and electron diffusion length enable high-efficiency perovskite tandems. Nature Communications, 2020, 11, 1257.	12.8	180
40	Conventional Solvent Oxidizes Sn(II) in Perovskite Inks. ACS Energy Letters, 2020, 5, 1153-1155.	17.4	127
41	Regulating strain in perovskite thin films through charge-transport layers. Nature Communications, 2020, 11, 1514.	12.8	346
42	Bipolar-shell resurfacing for blue LEDs based on strongly confined perovskite quantum dots. Nature Nanotechnology, 2020, 15, 668-674.	31.5	541
43	Combining Efficiency and Stability in Mixed Tinâ€“Lead Perovskite Solar Cells by Capping Grains with an Ultrathin 2D Layer. Advanced Materials, 2020, 32, e1907058.	21.0	148
44	Multi-cation perovskites prevent carrier reflection from grain surfaces. Nature Materials, 2020, 19, 412-418.	27.5	100
45	Solvent-Solute Coordination Engineering for Efficient Perovskite Luminescent Solar Concentrators. Joule, 2020, 4, 631-643.	24.0	53
46	High Color Purity Leadâ€Free Perovskite Lightâ€Emitting Diodes via Sn Stabilization. Advanced Science, 2020, 7, 1903213.	11.2	146
47	Heterogeneous Supersaturation in Mixed Perovskites. Advanced Science, 2020, 7, 1903166.	11.2	13
48	Permanent Lattice Compression of Lead-Halide Perovskite for Persistently Enhanced Optoelectronic Properties. ACS Energy Letters, 2020, 5, 642-649.	17.4	52
49	Efficient near-infrared light-emitting diodes based on quantum dots in layered perovskite. Nature Photonics, 2020, 14, 227-233.	31.4	136
50	Transition from Positive to Negative Photoconductance in Doped Hybrid Perovskite Semiconductors. Advanced Optical Materials, 2019, 7, 1900865.	7.3	47
51	Temperature-Induced Self-Compensating Defect Traps and Gain Thresholds in Colloidal Quantum Dots. ACS Nano, 2019, 13, 8970-8976.	14.6	8
52	Thermal unequilibrium of strained black CsPbI ₃ thin films. Science, 2019, 365, 679-684.	12.6	444
53	Fine Structural Details Matter: A Lesson from Seven-Layered 2D Hybrid Perovskites. CheM, 2019, 5, 2513-2514.	11.7	1
54	Efficient and Stable Inverted Perovskite Solar Cells Incorporating Secondary Amines. Advanced Materials, 2019, 31, e1903559.	21.0	128

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55	Spectrally Tunable and Stable Electroluminescence Enabled by Rubidium Doping of CsPbBr₃ Nanocrystals. Advanced Optical Materials, 2019, 7, 1901440.	7.3	51
56	Halogen Vacancies Enable Ligandâ€Assisted Selfâ€Assembly of Perovskite Quantum Dots into Nanowires. Angewandte Chemie, 2019, 131, 16223-16227.	2.0	16
57	Perovskite Solar Cells: Efficient and Stable Inverted Perovskite Solar Cells Incorporating Secondary Amines (Adv. Mater. 46/2019). Advanced Materials, 2019, 31, 1970330.	21.0	1
58	Halogen Vacancies Enable Ligandâ€Assisted Selfâ€Assembly of Perovskite Quantum Dots into Nanowires. Angewandte Chemie - International Edition, 2019, 58, 16077-16081.	13.8	49
59	Learning-in-Templates Enables Accelerated Discovery and Synthesis of New Stable Double Perovskites. Journal of the American Chemical Society, 2019, 141, 3682-3690.	13.7	27
60	Suppressed Ion Migration in Reduced-Dimensional Perovskites Improves Operating Stability. ACS Energy Letters, 2019, 4, 1521-1527.	17.4	130
61	Contactless measurements of photocarrier transport properties in perovskite single crystals. Nature Communications, 2019, 10, 1591.	12.8	55
62	In Situ Backâ€Contact Passivation Improves Photovoltage and Fill Factor in Perovskite Solar Cells. Advanced Materials, 2019, 31, e1807435.	21.0	143
63	Electroâ€Optic Modulation in Hybrid Metal Halide Perovskites. Advanced Materials, 2019, 31, e1808336.	21.0	42
64	Solution-processed perovskite-colloidal quantum dot tandem solar cells for photon collection beyond 1000 nm. Journal of Materials Chemistry A, 2019, 7, 26020-26028.	10.3	44
65	Monolithic all-perovskite tandem solar cells with 24.8% efficiency exploiting comproportionation to suppress Sn(ii) oxidation in precursor ink. Nature Energy, 2019, 4, 864-873.	39.5	736
66	Amideâ€Catalyzed Phaseâ€Selective Crystallization Reduces Defect Density in Wideâ€Bandgap Perovskites. Advanced Materials, 2018, 30, e1706275.	21.0	80
67	Multibandgap quantum dot ensembles for solar-matched infrared energy harvesting. Nature Communications, 2018, 9, 4003.	12.8	56
68	Butylamineâ€Catalyzed Synthesis of Nanocrystal Inks Enables Efficient Infrared CQD Solar Cells. Advanced Materials, 2018, 30, e1803830.	21.0	67
69	Copper adparticle enabled selective electrosynthesis of n-propanol. Nature Communications, 2018, 9, 4614.	12.8	153
70	Challenges for commercializing perovskite solar cells. Science, 2018, 361, .	12.6	1,327
71	Efficient Photon Recycling and Radiation Trapping in Cesium Lead Halide Perovskite Waveguides. ACS Energy Letters, 2018, 3, 1492-1498.	17.4	70
72	Dipolar cations confer defect tolerance in wide-bandgap metal halide perovskites. Nature Communications, 2018, 9, 3100.	12.8	237

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73	Suppression of atomic vacancies via incorporation of isovalent small ions to increase the stability of halide perovskite solar cells in ambient air. Nature Energy, 2018, 3, 648-654.	39.5	552
74	2D Metal Oxyhalideâ€Derived Catalysts for Efficient CO₂ Electroreduction. Advanced Materials, 2018, 30, e1802858.	21.0	200
75	Perovskite Single Crystals: Synthesis, Properties and Devices. Materials and Energy, 2018, , 241-283.	0.1	2
76	Double Charged Surface Layers in Lead Halide Perovskite Crystals. Nano Letters, 2017, 17, 2021-2027.	9.1	60
77	Zero-Dimensional Cs₄PbBr₆ Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2017, 8, 961-965.	4.6	299
78	Low-Dimensional-Networked Metal Halide Perovskites: The Next Big Thing. ACS Energy Letters, 2017, 2, 889-896.	17.4	367
79	Timeâ€Dependent Mechanical Response of APbX₃ (A = Cs, CH₃NH₃; X) Tj ETQq1 1 0.784314 rg	21.0	63
80	Pyridine-Induced Dimensionality Change in Hybrid Perovskite Nanocrystals. Chemistry of Materials, 2017, 29, 4393-4400.	6.7	100
81	Thermochromic Perovskite Inks for Reversible Smart Window Applications. Chemistry of Materials, 2017, 29, 3367-3370.	6.7	130
82	Inorganic Lead Halide Perovskite Single Crystals: Phaseâ€Selective Lowâ€Temperature Growth, Carrier Transport Properties, and Selfâ€Powered Photodetection. Advanced Optical Materials, 2017, 5, 1600704.	7.3	362
83	Inside Perovskites: Quantum Luminescence from Bulk Cs₄PbBr₆ Single Crystals. Chemistry of Materials, 2017, 29, 7108-7113.	6.7	200
84	The Role of Surface Tension in the Crystallization of Metal Halide Perovskites. ACS Energy Letters, 2017, 2, 1782-1788.	17.4	155
85	Highâ€Purity Hybrid Organolead Halide Perovskite Nanoparticles Obtained by Pulsedâ€Laser Irradiation in Liquid. ChemPhysChem, 2017, 18, 1047-1054.	2.1	23
86	Fast and Sensitive Solutionâ€Processed Visibleâ€Blind Perovskite UV Photodetectors. Advanced Materials, 2016, 28, 7264-7268.	21.0	234
87	The Inâ€Gap Electronic State Spectrum of Methylammonium Lead Iodide Singleâ€Crystal Perovskites. Advanced Materials, 2016, 28, 3406-3410.	21.0	187
88	Formamidinium Lead Halide Perovskite Crystals with Unprecedented Long Carrier Dynamics and Diffusion Length. ACS Energy Letters, 2016, 1, 32-37.	17.4	752
89	Pure Cs₄PbBr₆: Highly Luminescent Zero-Dimensional Perovskite Solids. ACS Energy Letters, 2016, 1, 840-845.	17.4	481
90	Hybrid perovskites: Approaches towards light-emitting devices. , 2016, , .		0

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91	Optical constants of CH_3NH_3PbBr_3 perovskite thin films measured by spectroscopic ellipsometry. Optics Express, 2016, 24, 16586.	3.4	108
92	Surface Electronic Structure of Hybrid Organo Lead Bromide Perovskite Single Crystals. Journal of Physical Chemistry C, 2016, 120, 21710-21715.	3.1	58
93	Perovskite Photodetectors Operating in Both Narrowband and Broadband Regimes. Advanced Materials, 2016, 28, 8144-8149.	21.0	260
94	Pure crystal orientation and anisotropic charge transport in large-area hybrid perovskite films. Nature Communications, 2016, 7, 13407.	12.8	170
95	Surface Restructuring of Hybrid Perovskite Crystals. ACS Energy Letters, 2016, 1, 1119-1126.	17.4	140
96	Perovskite Nanocrystals as a Color Converter for Visible Light Communication. ACS Photonics, 2016, 3, 1150-1156.	6.6	221
97	Making and Breaking of Lead Halide Perovskites. Accounts of Chemical Research, 2016, 49, 330-338.	15.6	571
98	Robust and air-stable sandwiched organo-lead halide perovskites for photodetector applications. Journal of Materials Chemistry C, 2016, 4, 2545-2552.	5.5	53
99	Enhanced Etching, Surface Damage Recovery, and Submicron Patterning of Hybrid Perovskites using a Chemically Gas-Assisted Focused-Ion Beam for Subwavelength Grating Photonic Applications. Journal of Physical Chemistry Letters, 2016, 7, 137-142.	4.6	80
100	Heterovalent Dopant Incorporation for Bandgap and Type Engineering of Perovskite Crystals. Journal of Physical Chemistry Letters, 2016, 7, 295-301.	4.6	332
101	Planar-integrated single-crystalline perovskite photodetectors. Nature Communications, 2015, 6, 8724.	12.8	617
102	High-quality bulk hybrid perovskite single crystals within minutes by inverse temperature crystallization. Nature Communications, 2015, 6, 7586.	12.8	1,478
103	Retrograde solubility of formamidinium and methylammonium lead halide perovskites enabling rapid single crystal growth. Chemical Communications, 2015, 51, 17658-17661.	4.1	349
104	CH₃NH₃PbCl₃ Single Crystals: Inverse Temperature Crystallization and Visible-Blind UV-Photodetector. Journal of Physical Chemistry Letters, 2015, 6, 3781-3786.	4.6	636
105	The peculiarities of reduction of iron (III) oxides deposited on expanded graphite. Journal of Materials Research, 2014, 29, 252-259.	2.6	8
106	Expandable graphite modification by boric acid. Journal of Materials Research, 2012, 27, 1054-1059.	2.6	5
107	Selfâ€Aligned Nonâ€Centrosymmetric Conjugated Molecules Enable Electroâ€Optic Perovskites. Advanced Optical Materials, 0, , 2100730.	7.3	6