Shengzhong Frank Liu

List of Publications by Year
in descending order

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475 papers	36,360 citations	2318 98 h-index	4988 167 g-index
481 all docs	481 docs citations	481 times ranked	22190 citing authors

#	Article	IF	Citations
1	Green antisolvent additive engineering to improve the performance of perovskite solar cells. Journal of Energy Chemistry, 2022, 66, 1-8.	7.1	42
2	Double Side Interfacial Optimization for Lowâ€Temperature Stable CsPbI₂Br Perovskite Solar Cells with High Efficiency Beyond 16%. Energy and Environmental Materials, 2022, 5, 637-644.	7.3	27
3	Post-treatment by an ionic tetrabutylammonium hexafluorophosphate for improved efficiency and stability of perovskite solar cells. Journal of Energy Chemistry, 2022, 64, 8-15.	7.1	19
4	Lead-free molecular one-dimensional perovskite for efficient X-ray detection. Journal of Energy Chemistry, 2022, 64, 209-213.	7.1	15
5	Graded 2D/3D (CF3-PEA)2FA0.85MA0.15Pb2I7/FA0.85MA0.15PbI3 heterojunction for stable perovskite solar cell with an efficiency over 23.0%. Journal of Energy Chemistry, 2022, 65, 480-489.	7.1	34
6	Spontaneous Construction of Multidimensional Heterostructure Enables Enhanced Hole Extraction for Inorganic Perovskite Solar Cells to Exceed 20% Efficiency. Advanced Energy Materials, 2022, 12, 2103007.	10.2	42
7	Ionâ€Accumulationâ€Induced Charge Tunneling for High Gain Factor in Pâ€“Iâ€“Nâ€Structured Perovskite CH₃NH₃PbI₃ Xâ€Ray Detector. Advanced Materials Technologies, 2022, 7, 2100908.	3.0	15
8	Unraveling Passivation Mechanism of Imidazolium-Based Ionic Liquids on Inorganic Perovskite to Achieve Near-Record-Efficiency CsPbI2Br Solar Cells. Nano-Micro Letters, 2022, 14, 7.	14.4	58
9	A Key 2D Intermediate Phase for Stable Highâ€Efficiency CsPbI₂Br Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, 2103019.	10.2	44
10	Perovskite Quantum Dots in Solar Cells. Advanced Science, 2022, 9, e2104577.	5.6	49
11	Formamidinium-based Ruddlesdenâ€“Popper perovskite films fabricated via two-step sequential deposition: quantum well formation, physical properties and film-based solar cells. Energy and Environmental Science, 2022, 15, 1144-1155.	15.6	27
12	Diaminobenzene Dihydroiodideâ€MA_{0.6}FA_{0.4}PbI_{3â^’}_xCl_x Unsymmetrical Perovskites with over 22% Efficiency for High Stability Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	16
13	Rational Design of Heterojunction Interface for Cu₂ZnSn(S,Se)₄ Solar Cells to Exceed 12% Efficiency. Solar Rrl, 2022, 6, .	3.1	15
14	Highly Efficient and Stable CsPbTh₃ (Th = I, Br, Cl) Perovskite Solar Cells by Combinational Passivation Strategy. Advanced Science, 2022, 9, e2105103.	5.6	20
15	Ionic Liquid Treatment for Highestâ€Efficiency Ambient Printed Stable Allâ€Inorganic CsPbI₃ Perovskite Solar Cells. Advanced Materials, 2022, 34, e2106750.	11.1	97
16	2D-C₃N₄ encapsulated perovskite nanocrystals for efficient photo-assisted thermocatalytic CO₂ reduction. Chemical Science, 2022, 13, 1335-1341.	3.7	29
17	All-Inorganic Perovskite Solar Cells with Tetrabutylammonium Acetate as the Buffer Layer between the SnO₂ Electron Transport Film and CsPbI₃. ACS Applied Materials & Interfaces, 2022, 14, 5183-5193.	4.0	20
18	Centimeter-Sized 2D Perovskitoid Single Crystals for Efficient X-ray Photoresponsivity. Chemistry of Materials, 2022, 34, 1699-1709.	3.2	24

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19	Unveiling the effect of interstitial dopants on CO2 activation over CsPbBr3 catalyst for efficient photothermal CO2 reduction. Chemical Engineering Journal, 2022, 435, 135071.	6.6	35
20	Imidazolium-based ionic liquid for stable and highly efficient black-phase formamidinium-based perovskite solar cell. Chemical Engineering Journal, 2022, 434, 134759.	6.6	5
21	Surface reconstruction strategy improves the all-inorganic CsPbIBr2 based perovskite solar cells and photodetectors performance. Nano Energy, 2022, 94, 106960.	8.2	35
22	Polarity regulation for stable 2D-perovskite-encapsulated high-efficiency 3D-perovskite solar cells. Nano Energy, 2022, 95, 106965.	8.2	27
23	Symmetrical Acceptorâ€“Donorâ€“Acceptor Molecule as a Versatile Defect Passivation Agent toward Efficient FA_{0.85}MA_{0.15}PbI₃ Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	47
24	Inch-size Cs₃Bi₂I₉ polycrystalline wafers with near-intrinsic properties for ultralow-detection-limit X-ray detection. Journal of Materials Chemistry C, 2022, 10, 6665-6672.	2.7	18
25	Intermediate phase engineering of halide perovskites for photovoltaics. Joule, 2022, 6, 315-339.	11.7	60
26	Recent Developments in Upscalable Printing Techniques for Perovskite Solar Cells. Advanced Science, 2022, 9, e2200308.	5.6	40
27	Utilizing the Energy Transfer of Ce⁴⁺â€“ and Ce³⁺â€“Tb³⁺ to Boost the Luminescence Quantum Efficiency up to 100% in Borate Glass. Journal of Physical Chemistry C, 2022, 126, 5838-5846.	1.5	3
28	Protonâ€transferâ€induced in situ defect passivation for highly efficient wideâ€bandgap inverted perovskite solar cells. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	8.5	27
29	Wideâ€Bandgap Organicâ€“Inorganic Lead Halide Perovskite Solar Cells. Advanced Science, 2022, 9, e2105085.	5.6	60
30	Carrier Generation Engineering toward 18% Efficiency Organic Solar Cells by Controlling Film Microstructure. Advanced Energy Materials, 2022, 12, .	10.2	25
31	Ligandâ€Anchoringâ€Induced Oriented Crystal Growth for Highâ€Efficiency Leadâ€Tin Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	38
32	Firstâ€Principles Calculation Design for 2D Perovskite to Suppress Ion Migration for Highâ€Performance Xâ€ray Detection. Advanced Functional Materials, 2022, 32, .	7.8	36
33	In Situ Study of Molecular Aggregation in Conjugated Polymer/Elastomer Blends toward Stretchable Electronics. Macromolecules, 2022, 55, 297-308.	2.2	30
34	Ionicâ€Liquidâ€Perovskite Capping Layer for Stable 24.33%â€Efficient Solar Cell. Advanced Energy Materials, 2022, 12, .	10.2	80
35	Recordâ€Efficiency Flexible Perovskite Solar Cells Enabled by Multifunctional Organic Ions Interface Passivation. Advanced Materials, 2022, 34, e2201681.	11.1	186
36	Amino Acidâ€Based Lowâ€Dimensional Management for Enhanced Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	3

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37	Recent Progress of Electrode Materials for Flexible Perovskite Solar Cells. Nano-Micro Letters, 2022, 14, 117.	14.4	68
38	4â€Hydrazinobenzoicâ€Acid Antioxidant for Highâ€Efficiency Snâ€“Pb Alloyed Perovskite Solar Cells. Energy Technology, 2022, 10, .	1.8	10
39	Waterâ€Resistant Leadâ€Free Perovskitoid Single Crystal for Efficient Xâ€Ray Detection. Advanced Functional Materials, 2022, 32, .	7.8	18
40	Flexible perovskite solar cells: Material selection and structure design. Applied Physics Reviews, 2022, 9, .	5.5	19
41	Enhanced visible-light photocatalytic activity of hydrogenated Fe3O4 nanooctahedrons with {111} polar facets in degradation of Basic Fuchsin and the photocatalytic mechanism. Journal of Materials Science: Materials in Electronics, 2022, 33, 13095-13109.	1.1	1
42	Alkyl Diamine-Induced (100)-Preferred Crystal Orientation for Efficient Pbâ€“Sn Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 6936-6942.	2.5	12
43	Structural and Functional Insights into Metal-Free Perovskites. Journal of Physical Chemistry Letters, 2022, 13, 5168-5178.	2.1	8
44	Collaborative Strategy of Multifunctional Groups in Trifluoroacetamide Achieving Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	17
45	Hydrazide Derivatives for Defect Passivation in Pure CsPbI₃ Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	95
46	Stable Highâ€Efficiency CsPbI₂Br Solar Cells by Designed Passivation Using Multifunctional 2D Perovskite. Advanced Functional Materials, 2022, 32, .	7.8	27
47	Stable 24.29%â€Efficiency FA_{0.85}MA_{0.15}PbI₃ Perovskite Solar Cells Enabled by Methyl Haloacetateâ€Lead Dimer Complex. Advanced Energy Materials, 2022, 12, .	10.2	54
48	In-situ photoisomerization of azobenzene to inhibit ion-migration for stable high-efficiency perovskite solar cells. Journal of Energy Chemistry, 2022, 73, 556-564.	7.1	7
49	Effect of Solvent Residue in the Thin-Film Fabrication on Perovskite Solar Cell Performance. ACS Applied Materials & Interfaces, 2022, 14, 28729-28737.	4.0	22
50	Synergetic surface defect passivation towards efficient and stable inorganic perovskite solar cells. Chemical Engineering Journal, 2022, 447, 137515.	6.6	24
51	Powering the World with Solar Fuels from Photoelectrochemical CO₂ Reduction: Basic Principles and Recent Advances. Advanced Energy Materials, 2022, 12, .	10.2	44
52	Roles of Organic Ligands in Ambient Stability of Layered Halide Perovskites. ACS Applied Materials & Interfaces, 2022, 14, 33085-33093.	4.0	2
53	Balanced-Strength Additive for High-Efficiency Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 8034-8041.	2.5	10
54	Synergistic Crystallization and Passivation by a Single Molecular Additive for Highâ€Performance Perovskite Solar Cells. Advanced Materials, 2022, 34, .	11.1	37

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55	Efficient Eco-Friendly Flexible X-ray Detectors Based on Molecular Perovskite. Nano Letters, 2022, 22, 5973-5981.	4.5	19
56	First observation of magnon transport in organic-inorganic hybrid perovskite. Matter, 2022, , .	5.0	4
57	Synergistic Effect of Antiâ€Solvent and Component Engineering for Effective Passivation to Attain Highly Stable Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	15
58	Metal-doped Mo2C (metal = Fe, Co, Ni, Cu) as catalysts on TiO2 for photocatalytic hydrogen evolution in neutral solution. Chinese Journal of Catalysis, 2021, 42, 205-216.	6.9	64
59	Multifunctional Enhancement for Highly Stable and Efficient Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2005776.	7.8	273
60	Highâ€Efficiency Perovskite Solar Cells with Imidazoliumâ€Based Ionic Liquid for Surface Passivation and Charge Transport. Angewandte Chemie - International Edition, 2021, 60, 4238-4244.	7.2	221
61	Sequential Formation of Tunableâ€Bandgap Mixedâ€Halide Leadâ€Based Perovskites: In Situ Investigation and Photovoltaic Devices. Solar Rrl, 2021, 5, .	3.1	15
62	Hot Debate on Perovskite Solar Cells: Stability, Toxicity, High-Efficiency and Low Cost. Journal of Energy Chemistry, 2021, 53, 407-411.	7.1	9
63	Superior photovoltaics/optoelectronics of two-dimensional halide perovskites. Journal of Energy Chemistry, 2021, 57, 69-82.	7.1	20
64	ASnX₃â€”Better than Pbâ€based Perovskite. Nano Select, 2021, 2, 159-186.	1.9	5
65	Recent advances in resistive random access memory based on lead halide perovskite. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 293-315.	8.5	70
66	Breaking Platinum Nanoparticles to Singleâ€Atomic Ptâ€C₄ Coâ€catalysts for Enhanced Solarâ€toâ€Hydrogen Conversion. Angewandte Chemie - International Edition, 2021, 60, 2541-2547.	7.2	51
67	Self-assembled CoOOH on TiO2 for enhanced photoelectrochemical water oxidation. Journal of Energy Chemistry, 2021, 60, 512-521.	7.1	20
68	Synergistically Enhanced Amplified Spontaneous Emission by Cd Doping and Clâ€Assisted Crystallization. Advanced Optical Materials, 2021, 9, 2001825.	3.6	2
69	Breaking Platinum Nanoparticles to Singleâ€Atomic Ptâ€C 4 Coâ€catalysts for Enhanced Solarâ€toâ€Hydrogen Conversion. Angewandte Chemie, 2021, 133, 2571-2577.	1.6	8
70	Improving Performance and Stability of Planar Perovskite Solar Cells Through Passivation Effect with Green Additives. Solar Rrl, 2021, 5, 2000732.	3.1	5
71	Highâ€Efficiency Perovskite Solar Cells with Imidazoliumâ€Based Ionic Liquid for Surface Passivation and Charge Transport. Angewandte Chemie, 2021, 133, 4284-4290.	1.6	14
72	High Density and Unit Activity Integrated in Amorphous Catalysts for Electrochemical Water Splitting. Small Structures, 2021, 2, 2000096.	6.9	102

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73	Nanoconfined Crystallization for Highâ€Efficiency Inorganic Perovskite Solar Cells. Small Science, 2021, 1, 2000054.	5.8	19
74	Stability of the CsPbI₃perovskite: from fundamentals to improvements. Journal of Materials Chemistry A, 2021, 9, 11124-11144.	5.2	78
75	High-efficiency and thermal/moisture stable CsPbI_{2.84}Br_{0.16} inorganic perovskite solar cells enabled by a multifunctional cesium trimethylacetate organic additive. Journal of Materials Chemistry A, 2021, 9, 4922-4932.	5.2	12
76	Microstructure and lattice strain control towards high-performance ambient green-printed perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 13297-13305.	5.2	29
77	High-throughput large-area vacuum deposition for high-performance formamidine-based perovskite solar cells. Energy and Environmental Science, 2021, 14, 3035-3043.	15.6	121
78	Unraveling the crucial role of spacer ligands in tuning the contact properties of metalâ€“2D perovskite interfaces. Journal of Materials Chemistry C, 2021, 9, 8489-8495.	2.7	3
79	Metalâ€Free Organic Halide Perovskite: A New Class for Next Optoelectronic Generation Devices. Advanced Energy Materials, 2021, 11, 2003331.	10.2	29
80	Tripleâ€Cation and Mixedâ€Halide Perovskite Single Crystal for Highâ€Performance Xâ€ray Imaging. Advanced Materials, 2021, 33, e2006010.	11.1	163
81	Dualâ€Interface Modification of CsPbIBr₂ Solar Cells with Improved Efficiency and Stability. Advanced Materials Interfaces, 2021, 8, 2001994.	1.9	12
82	Molecular Engineering for Two-Dimensional Perovskites with Photovoltaic Efficiency Exceeding 18%. Matter, 2021, 4, 582-599.	5.0	123
83	Perovskite Solar Cells toward Eco-Friendly Printing. Research, 2021, 2021, 9671892.	2.8	18
84	Inch-sized high-quality perovskite single crystals by suppressing phase segregation for light-powered integrated circuits. Science Advances, 2021, 7, .	4.7	81
85	Defect Engineering in Earthâ€Abundant Cu₂ZnSn(S,Se)₄ Photovoltaic Materials via Ga³⁺â€Doping for over 12% Efficient Solar Cells. Advanced Functional Materials, 2021, 31, 2010325.	7.8	79
86	van der Waals Interaction-Induced Tunable Schottky Barriers in Metalâ€“2D Perovskite Contacts. Journal of Physical Chemistry Letters, 2021, 12, 1718-1725.	2.1	11
87	Dual interfacial engineering for efficient Cs2AgBiBr6 based solar cells. Journal of Energy Chemistry, 2021, 53, 372-378.	7.1	46
88	Centimeterâ€Sized Molecular Perovskite Crystal for Efficient Xâ€Ray Detection. Advanced Functional Materials, 2021, 31, 2100691.	7.8	22
89	Photogenerated Charge Separation between Polar Crystal Facets Under a Spontaneous Electric Field. Advanced Optical Materials, 2021, 9, 2001898.	3.6	7
90	Film Formation Control for High Performance Dionâ€“Jacobson 2D Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2002733.	10.2	62

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91	Inâ€Situ Hot Oxygen Cleansing and Passivation for Allâ€Inorganic Perovskite Solar Cells Deposited in Ambient to Breakthrough 19% Efficiency. Advanced Functional Materials, 2021, 31, 2101568.	7.8	42
92	Holeâ€Storage Enhanced aâ€Si Photocathodes for Efficient Hydrogen Production. Angewandte Chemie, 2021, 133, 12073-12079.	1.6	2
93	Holeâ€Storage Enhanced aâ€Si Photocathodes for Efficient Hydrogen Production. Angewandte Chemie - International Edition, 2021, 60, 11966-11972.	7.2	29
94	Versatile Bidentate Chemical Passivation on a Cesium Lead Inorganic Perovskite for Efficient and Stable Photovoltaics. ACS Applied Energy Materials, 2021, 4, 4021-4028.	2.5	16
95	Simultaneous dual-interface and bulk defect passivation for high-efficiency and stable CsPbI2Br perovskite solar cells. Journal of Power Sources, 2021, 492, 229580.	4.0	13
96	Synergistic Effect of RbBr Interface Modification on Highly Efficient and Stable Perovskite Solar Cells. ACS Omega, 2021, 6, 13766-13773.	1.6	3
97	Enhanced Efficiency of Inorganic CsPbI_{3â”}_xBr_x Perovskite Solar Cell via Selfâ€Regulation of Antisite Defects. Advanced Energy Materials, 2021, 11, 2100403.	10.2	45
98	40.1% Record Lowâ€Light Solarâ€Cell Efficiency by Holistic Trapâ€Passivation using Micrometerâ€Thick Perovskite Film. Advanced Materials, 2021, 33, e2100770.	11.1	110
99	Effective Phaseâ€Alignment for 2D Halide Perovskites Incorporating Symmetric Diammonium Ion for Photovoltaics. Advanced Science, 2021, 8, e2001433.	5.6	32
100	Stable 2D Alternating Cation Perovskite Solar Cells with Power Conversion Efficiency >19% via Solvent Engineering. Solar Rrl, 2021, 5, 2100286.	3.1	45
101	Antisolventâ€•and Annealingâ€Free Deposition for Highly Stable Efficient Perovskite Solar Cells via Modified ZnO. Advanced Science, 2021, 8, 2002860.	5.6	47
102	Semitransparent Flexible Perovskite Solar Cells for Potential Greenhouse Applications. Solar Rrl, 2021, 5, 2100264.	3.1	15
103	Samariumâ€Doped Nickel Oxide for Superior Inverted Perovskite Solar Cells: Insight into Doping Effect for Electronic Applications. Advanced Functional Materials, 2021, 31, 2102452.	7.8	41
104	Enhanced Efficiency and Stability of Allâ€Inorganic CsPbI₂Br Perovskite Solar Cells by Organic and Ionic Mixed Passivation. Advanced Science, 2021, 8, e2101367.	5.6	66
105	Tapered Coaxial Arrays for Photonâ€•and Plasmonâ€Enhanced Light Harvesting in Perovskite Solar Cells: A Theoretical Investigation Using the Finite Element Method. ChemPlusChem, 2021, 86, 858-864.	1.3	5
106	28.3%-efficiency perovskite/silicon tandem solar cell by optimal transparent electrode for high efficient semitransparent top cell. Nano Energy, 2021, 84, 105934.	8.2	93
107	Deepâ€Level Transient Spectroscopy for Effective Passivator Selection in Perovskite Solar Cells to Attain High Efficiency over 23%. ChemSusChem, 2021, 14, 3182-3189.	3.6	24
108	Fluoroethylamine Engineering for Effective Passivation to Attain 23.4% Efficiency Perovskite Solar Cells with Superior Stability. Advanced Energy Materials, 2021, 11, 2101454.	10.2	49

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109	Flexible perovskite solar cells with simultaneously improved efficiency, operational stability, and mechanical reliability. Joule, 2021, 5, 1587-1601.	11.7	120
110	Cation Engineering for Effective Defect Passivation to Improve Efficiency and Stability of FA0.5MA0.5PbI3 Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 7654-7660.	2.5	3
111	Highly Luminescent Metalâ€Free Perovskite Single Crystal for Biocompatible Xâ€Ray Detector to Attain Highest Sensitivity. Advanced Materials, 2021, 33, e2102190.	11.1	46
112	Singleâ€Atom Doping and Highâ€Valence State for Synergistic Enhancement of NiO Electrocatalytic Water Oxidation. Small, 2021, 17, e2102448.	5.2	28
113	Halide-modulated self-assembly of metal-free perovskite single crystals for bio-friendly X-ray detection. Matter, 2021, 4, 2490-2507.	5.0	47
114	Enabling Solar Hydrogen Production over Selenium: Surface State Passivation and Cocatalyst Decoration. ACS Sustainable Chemistry and Engineering, 2021, 9, 9923-9931.	3.2	7
115	Room-temperature sputtered-SnO2 modified anode toward efficient TiO2-based planar perovskite solar cells. Science China Technological Sciences, 2021, 64, 1995-2002.	2.0	6
116	An in-situ defect passivation through a green anti-solvent approach for high-efficiency and stable perovskite solar cells. Science Bulletin, 2021, 66, 1419-1428.	4.3	29
117	m-Phenylenediammonium as a New Spacer for Dionâ€“Jacobson Two-Dimensional Perovskites. Journal of the American Chemical Society, 2021, 143, 12063-12073.	6.6	71
118	pâ€Type Carbon Dots for Effective Surface Optimization for Nearâ€Recordâ€Efficiency CsPbI₂Br Solar Cells. Small, 2021, 17, e2102272.	5.2	34
119	Secondary crystallization strategy for highly efficient inorganic CsPbI2Br perovskite solar cells with efficiency approaching 17%. Journal of Energy Chemistry, 2021, 63, 558-565.	7.1	22
120	A Special Additive Enables All Cations and Anions Passivation for Stable Perovskite Solar Cells with Efficiency over 23%. Nano-Micro Letters, 2021, 13, 169.	14.4	86
121	Pyrenesulfonic Acid Sodium Salt for Effective Bottomâ€Surface Passivation to Attain High Performance of Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100416.	3.1	8
122	Defects in CsPbX₃ Perovskite: From Understanding to Effective Manipulation for Highâ€Performance Solar Cells. Small Methods, 2021, 5, e2100725.	4.6	37
123	Moltenâ€Saltâ€Assisted CsPbI₃ Perovskite Crystallization for Nearly 20%â€Efficiency Solar Cells. Advanced Materials, 2021, 33, e2103770.	11.1	81
124	Interfaces and Interfacial Layers in Inorganic Perovskite Solar Cells. Angewandte Chemie, 2021, 133, 26644-26657.	1.6	14
125	Rational Surfaceâ€Defect Control via Designed Passivation for Highâ€Efficiency Inorganic Perovskite Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 23164-23170.	7.2	189
126	Interfaces and Interfacial Layers in Inorganic Perovskite Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 26440-26453.	7.2	69

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127	IrO_x@In₂O₃ Heterojunction from Individually Crystallized Oxides for Weakâ€Lightâ€Promoted Electrocatalytic Water Oxidation. Angewandte Chemie, 2021, 133, 26994-27001.	1.6	4
128	Rational Surfaceâ€Defect Control via Designed Passivation for Highâ€Efficiency Inorganic Perovskite Solar Cells. Angewandte Chemie, 2021, 133, 23348-23354.	1.6	58
129	IrO_x@In₂O₃ Heterojunction from Individually Crystallized Oxides for Weakâ€Lightâ€Promoted Electrocatalytic Water Oxidation. Angewandte Chemie - International Edition, 2021, 60, 26790-26797.	7.2	23
130	Dual Passivation of Perovskite and SnO₂ for Highâ€Efficiency MAPbI₃ Perovskite Solar Cells. Advanced Science, 2021, 8, 2001466.	5.6	72
131	Design of surface termination for high-performance perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 23597-23606.	5.2	25
132	Inner Strain Regulation in Perovskite Single Crystals through Fine-Tuned Halide Composition. Crystal Growth and Design, 2021, 21, 1741-1750.	1.4	14
133	A review on the stability of inorganic metal halide perovskites: challenges and opportunities for stable solar cells. Energy and Environmental Science, 2021, 14, 2090-2113.	15.6	193
134	Grain and stoichiometry engineering for ultra-sensitive perovskite X-ray detectors. Journal of Materials Chemistry A, 2021, 9, 25603-25610.	5.2	18
135	Flexible Diodes/Transistors Based on Tunable p-n-Type Semiconductivity in Graphene/Mn-Co-Ni-O Nanocomposites. Research, 2021, 2021, 9802795.	2.8	2
136	Nâ€Type Surface Design for pâ€Type CZTSSe Thin Film to Attain High Efficiency. Advanced Materials, 2021, 33, e2104330.	11.1	49
137	Grapheneâ€“MCN pn-junction for ultrafast flexible ultraviolet detector. MRS Communications, 2021, 11, 862.	0.8	0
138	Effective surface passivation with 4-bromo-benzonitrile to enhance the performance of perovskite solar cells. Journal of Materials Chemistry C, 2021, 9, 17089-17098.	2.7	7
139	Verringerung schÃdlicher Defekte fÃ¼r leistungsstarke Metallhalogenidâ€Perowskitâ€Solarzellen. Angewandte Chemie, 2020, 132, 6740-6764.	1.6	16
140	Reducing Detrimental Defects for Highâ€Performance Metal Halide Perovskite Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 6676-6698.	7.2	334
141	Fabrication of efficient CsPbBr3 perovskite solar cells by single-source thermal evaporation. Journal of Alloys and Compounds, 2020, 818, 152903.	2.8	58
142	Improve the oxide/perovskite heterojunction contact for low temperature high efficiency and stable all-inorganic CsPbI2Br perovskite solar cells. Nano Energy, 2020, 67, 104241.	8.2	97
143	27%â€Efficiency Fourâ€Terminal Perovskite/Silicon Tandem Solar Cells by Sandwiched Gold Nanomesh. Advanced Functional Materials, 2020, 30, 1908298.	7.8	91
144	Ambient blade coating of mixed cation, mixed halide perovskites without dripping: in situ investigation and highly efficient solar cells. Journal of Materials Chemistry A, 2020, 8, 1095-1104.	5.2	68

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145	Novel inorganic electron transport layers for planar perovskite solar cells: Progress and prospective. Nano Energy, 2020, 68, 104289.	8.2	83
146	Reply to â€˜Comment on â€œZero-thermal-quenching and photoluminescence tuning with the assistance of carriers from defect cluster trapsâ€â€™. Journal of Materials Chemistry C, 2020, 8, 1153-1156.	2.7	0
147	Chlorineâ€modified SnO₂ electron transport layer for highâ€efficiency perovskite solar cells. InformaÄnÃ-MateriÃ¡ly, 2020, 2, 401-408.	8.5	48
148	NaCl-assisted defect passivation in the bulk and surface of TiO2 enhancing efficiency and stability of planar perovskite solar cells. Journal of Power Sources, 2020, 448, 227586.	4.0	26
149	Improvement of Colloidal Characteristics in a Precursor Solution by a PbI2-(DMSO)2 Complex for Efficient Nonstoichiometrically Prepared CsPbI2.8Br0.2 Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 48756-48764.	4.0	10
150	Highâ€Pressure Nitrogenâ€Extraction and Effective Passivation to Attain Highest Largeâ€Area Perovskite Solar Module Efficiency. Advanced Materials, 2020, 32, e2004979.	11.1	145
151	Beach-Chair-Shaped Energy Band Alignment for High-Performance Î²-CsPbI3 Solar Cells. Cell Reports Physical Science, 2020, 1, 100180.	2.8	28
152	Polymeric room-temperature molten salt as a multifunctional additive toward highly efficient and stable inverted planar perovskite solar cells. Energy and Environmental Science, 2020, 13, 5068-5079.	15.6	121
153	2D Perovskite Single Crystals with Suppressed Ion Migration for Highâ€Performance Planarâ€Type Photodetectors. Small, 2020, 16, e2003145.	5.2	56
154	Morphology Evolution of a Highâ€Efficiency PSC by Modulating the Vapor Process. Small, 2020, 16, e2003582.	5.2	15
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