Halide Perovskite Photovoltaics: Background, Status, and

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Citation Report

#	Article	IF	CITATIONS
1	Divergent Optical Properties in an Isomorphous Family of Multinary Iodido Pentelates. Inorganic Chemistry, 2019, 58, 10983-10990.	4.0	17
2	Organic-Inorganic Hybrid Perovskites for Solar Cells Applications. Engineering Materials, 2019, , 89-101.	0.6	4
3	Food-derived carbonaceous materials for solar desalination and thermo-electric power generation. Nano Energy, 2019, 65, 104006.	16.0	149
4	Influence of Solution Deposition Process on Modulating Majority Charge Carrier Type and Quality of Perovskite Thin Films for Solar Cells. Materials, 2019, 12, 2494.	2.9	11
5	Nanostructured TiO ₂ Grown by Low-Temperature Reactive Sputtering for Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 6218-6229.	5.1	27
6	Mechanochemical synthesis of inorganic halide perovskites: evolution of phase-purity, morphology, and photoluminescence. Journal of Materials Chemistry C, 2019, 7, 11406-11410.	5.5	58
7	Efficient and stable perovskite solar cells based on perfluorinated polymers. Polymer Chemistry, 2019, 10, 5726-5736.	3.9	20
8	Fully-ambient-air and antisolvent-free-processed stable perovskite solar cells with perovskite-based composites and interface engineering. Nano Energy, 2019, 64, 103964.	16.0	35
9	Thionation Enhances the Performance of Polymeric Dopantâ€Free Holeâ€Transporting Materials for Perovskite Solar Cells. Advanced Materials Interfaces, 2019, 6, 1901036.	3.7	36
10	Scalable Fabrication of Metal Halide Perovskite Solar Cells and Modules. ACS Energy Letters, 2019, 4, 2147-2167.	17.4	161
12	Quantum-Dot-Induced Cesium-Rich Surface Imparts Enhanced Stability to Formamidinium Lead Iodide Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 1970-1975.	17.4	82
13	LiTFSIâ€Free Spiroâ€OMeTADâ€Based Perovskite Solar Cells with Power Conversion Efficiencies Exceeding 19%. Advanced Energy Materials, 2019, 9, 1901519.	19.5	85
14	The effect of the magnitude and direction of the dipoles of organic cations on the electronic structure of hybrid halide perovskites. Physical Chemistry Chemical Physics, 2019, 21, 16564-16572.	2.8	22
15	Multiple Roles of Cobalt Pyrazol-Pyridine Complexes in High-Performing Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 4675-4682.	4.6	13
16	Ultrasonic Spray-Coated Mixed Cation Perovskite Films and Solar Cells. ACS Sustainable Chemistry and Engineering, 2019, 7, 14217-14224.	6.7	32
17	Recent Progress in Highâ€efficiency Planarâ€structure Perovskite Solar Cells. Energy and Environmental Materials, 2019, 2, 93-106.	12.8	45
18	Simultaneous Cesium and Acetate Coalloying Improves Efficiency and Stability of FA _{0.85} MA _{0.15} PbI ₃ Perovskite Solar Cell with an Efficiency of 21.95%. Solar Rrl, 2019, 3, 1900220.	5.8	74
19	Comparative Intrinsic Thermal and Photochemical Stability of Sn(II) Complex Halides as Next-Generation Materials for Lead-Free Perovskite Solar Cells. Journal of Physical Chemistry C, 2019, 123, 26862-26869	3.1	36

#	Article	IF	CITATIONS
20	Selfâ€Assembly of Hybrid Oxidant POM@Cuâ€BTC for Enhanced Efficiency and Longâ€Term Stability of Perovskite Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 17610-17615.	13.8	95
21	Aâ€site Cation Engineering for Highly Efficient MAPbI ₃ Singleâ€Crystal Xâ€ray Detector. Angewandte Chemie - International Edition, 2019, 58, 17834-17842.	13.8	174
22	Loss Analysis in Perovskite Photovoltaic Modules. Solar Rrl, 2019, 3, 1900338.	5.8	23
23	Energy level tuning of aromatic polyamines by $[2\hat{a}\in +\hat{a}\in 2]$ cycloaddition-retroelectrocyclization for the optimization of device performances. Synthetic Metals, 2019, 257, 116179.	3.9	3
24	Dopantâ€Free Squaraineâ€Based Polymeric Holeâ€Transporting Materials with Comprehensive Passivation Effects for Efficient Allâ€Inorganic Perovskite Solar Cells. Angewandte Chemie, 2019, 131, 17888-17894.	2.0	18
25	26â€ ⁻ mAâ€ ⁻ cmâ^'2 JSC achieved in the integrated solar cells. Science Bulletin, 2019, 64, 1747-1749.	9.0	27
26	Photophysical Properties of Metal Halide Perovskite Thin Films. , 2019, , .		1
27	Enhanced Nearâ€Infrared Photoresponse of Inverted Perovskite Solar Cells Through Rational Design of Bulkâ€Heterojunction Electronâ€Transporting Layers. Advanced Science, 2019, 6, 1901714.	11.2	23
28	Dopantâ€Free Squaraineâ€Based Polymeric Holeâ€Transporting Materials with Comprehensive Passivation Effects for Efficient Allâ€Inorganic Perovskite Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 17724-17730.	13.8	118
29	Mechanoperovskites for Photovoltaic Applications: Preparation, Characterization, and Device Fabrication. Accounts of Chemical Research, 2019, 52, 3233-3243.	15.6	79
30	Applied Trace Alkali Metal Elements for Semiconductor Property Modulation of Perovskite Thin Films. Molecules, 2019, 24, 4039.	3.8	6
31	Impact of PbI ₂ Passivation and Grain Size Engineering in CH ₃ NH ₃ PbI ₃ Solar Absorbers as Revealed by Carrierâ€Resolved Photoâ€Hall Technique. Advanced Energy Materials, 2019, 9, 1902706.	19.5	52
32	An agar sandwich method for patterning transparent conducting oxides. Journal of Materials Science: Materials in Electronics, 2019, 30, 20734-20740.	2.2	1
33	Chemical and Structural Diversity of Hybrid Layered Double Perovskite Halides. Journal of the American Chemical Society, 2019, 141, 19099-19109.	13.7	144
34	Advances in the Stability of Halide Perovskite Nanocrystals. Materials, 2019, 12, 3733.	2.9	33
35	The Effect of Transparent Conductive Oxide Substrate on the Efficiency of SnGe-perovskite Solar Cells. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2019, 32, 597-602.	0.3	5
36	Highly efficient perovskite solar cell utilizing a solution-processable tetrabenzoporphyrin hole transport material with p-type dopants. Applied Physics Express, 2019, 12, 112009.	2.4	2
37	Selfâ€Assembly of Hybrid Oxidant POM@Cuâ€BTC for Enhanced Efficiency and Longâ€Term Stability of Perovskite Solar Cells. Angewandte Chemie, 2019, 131, 17774-17779.	2.0	4

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38	Aâ€site Cation Engineering for Highly Efficient MAPbI ₃ Singleâ€Crystal Xâ€ray Detector. Angewandte Chemie, 2019, 131, 17998-18006.	2.0	15
39	Size-Dependent Phase Transition in Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2019, 10, 5451-5457.	4.6	48
40	High-Performance Planar-Type Ultraviolet Photodetector Based on High-Quality CH ₃ NH ₃ PbCl ₃ Perovskite Single Crystals. ACS Applied Materials & Interfaces, 2019, 11, 34144-34150.	8.0	71
41	Multifunctional and Flexible Polymeric Nanocomposite Films with Improved Ferroelectric and Piezoelectric Properties for Energy Generation Devices. ACS Applied Energy Materials, 2019, 2, 6364-6374.	5.1	52
42	Sulfur-fused perylene diimide electron transport layers allow >400 h operational lifetime of methylammonium lead iodide photovoltaics. Journal of Materials Chemistry C, 2019, 7, 11126-11133.	5.5	6
43	Photon Management in Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 5892-5896.	4.6	14
44	Photomultiplying Visible Light Detection by Halide Perovskite Nanoparticles Hybridized with an Organo Eu Complex. Journal of Physical Chemistry Letters, 2019, 10, 5935-5942.	4.6	11
45	Photoinduced Charge Separation in Retinoic Acid on TiO ₂ : Comparison of Three Anchoring Modes. Journal of Physical Chemistry C, 2019, 123, 24634-24642.	3.1	8
46	Well-grown low-defect MAPbI3–xClx films for perovskite solar cells with over 20% efficiency fabricated under controlled ambient humidity conditions. Electrochimica Acta, 2019, 326, 134950.	5.2	10
47	Charge Accumulation, Recombination, and Their Associated Time Scale in Efficient (GUA) <i>_x</i> (MA) _{1–<i>x</i>} Pbl ₃ -Based Perovskite Solar Cells. ACS Omega, 2019, 4, 16840-16846.	3.5	25
48	Temperature-driven anion migration in gradient halide perovskites. Journal of Chemical Physics, 2019, 151, 134703.	3.0	31
49	TCTAP C-079 Two CTOs with Different Strategy in One Patient; A Classic Demonstration of CTO Intervention. Journal of the American College of Cardiology, 2019, 73, S148.	2.8	0
50	Single-Source Vapor Deposition of Quantum-Cutting Yb3+:CsPb(Cl1–xBrx)3 and Other Complex Metal-Halide Perovskites. ACS Applied Energy Materials, 2019, 2, 4560-4565.	5.1	44
51	Perovskites with d-block metals for solar energy applications. Dalton Transactions, 2019, 48, 9516-9537.	3.3	24
52	Refractive index change dominates the transient absorption response of metal halide perovskite thin films in the near infrared. Physical Chemistry Chemical Physics, 2019, 21, 14663-14670.	2.8	27
53	Synthesis of CH3NH3PbI3–Cl perovskite by the three-step route consisting of chemical solution deposition followed by gas–solid reaction transformations: Film quality and photodetector performance evaluation. Organic Electronics, 2019, 73, 76-86.	2.6	7
54	A structure–property study of fluoranthene-cored hole-transporting materials enables 19.3% efficiency in dopant-free perovskite solar cells. Chemical Science, 2019, 10, 6899-6907.	7.4	79
55	Methods and strategies for achieving high-performance carbon-based perovskite solar cells without hole transport materials. Journal of Materials Chemistry A, 2019, 7, 15476-15490.	10.3	85

#	Article	IF	CITATIONS
56	2D Intermediate Suppression for Efficient Ruddlesden–Popper (RP) Phase Lead-Free Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 1513-1520.	17.4	176
57	Interfacial Effects during Rapid Lamination within MAPbI ₃ Thin Films and Solar Cells. ACS Applied Energy Materials, 2019, 2, 5083-5093.	5.1	41
58	Flat Is Boring in Perovskite Light Detectors. CheM, 2019, 5, 748-749.	11.7	0
59	[1,2,5]Thiadiazolo[3,4-d]Pyridazine as an Internal Acceptor in the D-A-Ï€-A Organic Sensitizers for Dye-Sensitized Solar Cells. Molecules, 2019, 24, 1588.	3.8	21
60	Phenothiazine-Based Hole-Transporting Materials toward Eco-friendly Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 3021-3027.	5.1	49
61	Inverted-heterostructure based device of CH ₃ NH ₃ PbBr ₃ for Schottky photodiode. EPJ Applied Physics, 2019, 88, 30101.	0.7	4
62	Controlled Growth of BiSI Nanorod-Based Films through a Two-Step Solution Process for Solar Cell Applications. Nanomaterials, 2019, 9, 1650.	4.1	21
63	Polymeric, Cost-Effective, Dopant-Free Hole Transport Materials for Efficient and Stable Perovskite Solar Cells. Journal of the American Chemical Society, 2019, 141, 19700-19707.	13.7	119
64	Stabilizing lead halide perovskites with quaternary ammonium cations: the case of tetramethylammonium lead iodide. Physical Chemistry Chemical Physics, 2019, 21, 24768-24777.	2.8	20
65	Organo metal halide perovskites effectively photosensitize the production of singlet oxygen (¹ î" _g). Chemical Communications, 2019, 55, 13100-13103.	4.1	4
66	Synthesis of a two-dimensional organic–inorganic bismuth iodide metalate through <i>in situ</i> formation of iminium cations. Chemical Communications, 2019, 55, 14725-14728.	4.1	22
67	Recent advances toward efficient and stable tinâ€based perovskite solar cells. EcoMat, 2019, 1, e12004. Cation effect on excitons in perovskite nanocrystals from single-dot photoluminescence of	11.9	58
68	<pre><mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">N</mml:mi><mml:msub><mml:mi< pre=""></mml:mi<></mml:msub></mml:mrow></mml:math></pre>	3.2	6
69	mathvariant="normal">H <mml:mn>3</mml:mn> <mml:mi>Pb</mml:mi> <mml:msub><n Lead-Free Perovskites for Lighting and Lasing Applications: A Minireview. Materials, 2019, 12, 3845.</n </mml:msub>	nml:mi 2.9	28
70	Environmental Profile of the Manufacturing Process of Perovskite Photovoltaics: Harmonization of Life Cycle Assessment Studies. Energies, 2019, 12, 3746.	3.1	45
71	Effects of Organic Cations on Carrier Transport at the Interface between Perovskites and Electron Transport Layers in (FA,MA)SnI3 Solar Cells. Journal of Physical Chemistry C, 2019, 123, 30833-30841.	3.1	12
72	Slot-Die-Printed Two-Dimensional ZrS ₃ Charge Transport Layer for Perovskite Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2019, 11, 48021-48028.	8.0	13
73	Sequential deposition method of TiO2/CH3NH3PbI3 films for solar cell application. IOP Conference Series: Materials Science and Engineering, 2019, 659, 012083.	0.6	0

#	Article	IF	CITATIONS
74	Benzodithiophene-thienopyrroledione-thienothiophene-based random copolymeric hole transporting material for perovskite solar cell. Chemical Engineering Journal, 2020, 382, 122830.	12.7	16
75	Modifications in structural morphology of CH3NH3PbI3 perovskite using nitrilotriacetic acid and glycine as habit modifiers. Materials Chemistry and Physics, 2020, 240, 122149.	4.0	9
76	Recent Developments and Novel Applications of Thin Film, Lightâ€Emitting Transistors. Advanced Functional Materials, 2020, 30, 1905269.	14.9	53
77	Tin Halide Perovskite (ASnX ₃) Solar Cells: A Comprehensive Guide toward the Highest Power Conversion Efficiency. Advanced Energy Materials, 2020, 10, 1902467.	19.5	114
78	Perovskite Solar Cells: Can We Go Organicâ€Free, Leadâ€Free, and Dopantâ€Free?. Advanced Energy Materials, 2020, 10, 1902500.	19.5	198
79	2D and Quasiâ€2D Halide Perovskites: Applications and Progress. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900435.	2.4	37
80	Recent progress of thin-film photovoltaics for indoor application. Chinese Chemical Letters, 2020, 31, 643-653.	9.0	106
81	Verringerung schÃ d licher Defekte für leistungsstarke Metallhalogenidâ€Perowskitâ€Solarzellen. Angewandte Chemie, 2020, 132, 6740-6764.	2.0	16
82	Efficient Perovskite Solar Cells with a Novel Aggregationâ€Induced Emission Molecule as Holeâ€Transport Material. Solar Rrl, 2020, 4, 1900189.	5.8	14
83	Reducing Detrimental Defects for Highâ€Performance Metal Halide Perovskite Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 6676-6698.	13.8	334
84	All-oxide solar cells. , 2020, , 229-246.		1
85	Additive Engineering for Efficient and Stable Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902579.	19.5	477
86	Dibenzo[<i>b</i> , <i>d</i>]thiopheneâ€Cored Holeâ€Transport Material with Passivation Effect Enabling the Highâ€Efficiency Planar p–i–n Perovskite Solar Cells with 83% Fill Factor. Solar Rrl, 2020, 4, 1900421.	5.8	47
87	Two-step annealing of NiO enhances the NiO –perovskite interface for high-performance ambient-stable p–i–n perovskite solar cells. Applied Surface Science, 2020, 504, 144478.	6.1	25
88	The dominant role of surfaces in the hysteretic behavior of hybrid perovskites. Nano Energy, 2020, 67, 104162.	16.0	24
89	Halide perovskite photocatalysis: progress and perspectives. Journal of Chemical Technology and Biotechnology, 2020, 95, 2579-2596.	3.2	66
90	MAClâ€Assisted Ge Doping of Pbâ€Hybrid Perovskite: A Universal Route to Stabilize High Performance Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903299.	19.5	36
91	Lanthanide-containing polyoxometalate as luminescent down-conversion material for improved printable perovskite solar cells. Journal of Alloys and Compounds, 2020, 823, 153738.	5.5	24

#	Article	IF	CITATIONS
92	Suppressing recombination in perovskite solar cells via surface engineering of TiO2 ETL. Solar Energy, 2020, 197, 50-57.	6.1	53
93	Enhancement of the intrinsic light harvesting capacity of Cs ₂ AgBiBr ₆ double perovskite <i>via</i> modification with sulphide. Journal of Materials Chemistry A, 2020, 8, 2008-2020.	10.3	54
94	Revealing the origin of voltage loss in mixed-halide perovskite solar cells. Energy and Environmental Science, 2020, 13, 258-267.	30.8	283
95	(TMT–TTF)[Pb2.6/3â−¡0.4/3I2]3: a TTF-intercalated two-dimensional hybrid lead iodide: crystal structure and properties. New Journal of Chemistry, 2020, 44, 1263-1268.	2.8	1
96	Stabilizing n-type hetero-junctions for NiO _x based inverted planar perovskite solar cells with an efficiency of 21.6%. Journal of Materials Chemistry A, 2020, 8, 1865-1874.	10.3	40
97	Density functional theory analysis of electronic and optical properties of orthorhombic perovskite CH3NH3SnX3 (XÂ=ÂBr, I). Chemical Physics Letters, 2020, 740, 137062.	2.6	5
98	Inverse Temperature Crystallization of Formamidinium Tin Iodide: Indirect Transition State and Restriction of Cation Motion. Crystal Growth and Design, 2020, 20, 874-883.	3.0	7
99	Microtuning of the Wide-Bandgap Perovskite Lattice Plane for Efficient and Robust High-Voltage Planar Solar Cells Exceeding 1.5 V. ACS Applied Energy Materials, 2020, 3, 2331-2341.	5.1	12
100	Origin of Broad-Band Emission and Impact of Structural Dimensionality in Tin-Alloyed Ruddlesden–Popper Hybrid Lead Iodide Perovskites. ACS Energy Letters, 2020, 5, 347-352.	17.4	55
101	Investigating the Growth of CH ₃ NH ₃ Pbl ₃ Thin Films on RFâ€5puttered NiO <i>_x</i> for Inverted Planar Perovskite Solar Cells: Effect of CH ₃ NH ₃ ⁺ Halide Additives versus CH ₃ NH ₃ ⁺ Halide Vapor Annealing. Advanced Materials Interfaces,	3.7	48
102	2020, 7, 1901746. Influence of Surface Ligands on Energetics at FASnI ₃ /C ₆₀ Interfaces and Their Impact on Photovoltaic Performance. ACS Applied Materials & Interfaces, 2020, 12, 5209-5218.	8.0	28
103	How Interplay between Photo and Thermal Activation Dictates Halide Ion Segregation in Mixed Halide Perovskites. ACS Energy Letters, 2020, 5, 56-63.	17.4	123
104	Strong Collectivity of Optical Transitions in Lead Halide Perovskite Quantum Dots. Plasmonics, 2020, 15, 581-590.	3.4	5
105	Understanding the Enhanced Stability of Bromide Substitution in Lead Iodide Perovskites. Chemistry of Materials, 2020, 32, 400-409.	6.7	53
106	Growth and properties of centimeter-sized lead free all inorganic perovskite Cs2AgBiBr6 crystal by additive CH3COONa. Journal of Crystal Growth, 2020, 532, 125440.	1.5	16
107	A review of aspects of additive engineering in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 27-54.	10.3	232
108	The evolution of the most important research topics in organic and perovskite solar cell research from 2008 to 2017: A bibliometric literature review using bibliographic coupling analysis. Solar Energy Materials and Solar Cells, 2020, 207, 110325.	6.2	24
109	Photoelectrochemical Cells for Artificial Photosynthesis: Alternatives to Water Oxidation. ChemNanoMat, 2020, 6, 185-203.	2.8	38

#	Article	IF	CITATIONS
110	Tetrahydrofuran as an Oxygen Donor Additive to Enhance Stability and Reproducibility of Perovskite Solar Cells Fabricated in High Relative Humidity (50%) Atmosphere. Energy Technology, 2020, 8, 1900990.	3.8	6
111	Rapid and room temperature synthesis of MAPb1â^'xSnxBr3â^'2xCl2x perovskite quantum dots with enhanced lifetime in warm WLEDs: A step towards environmental friendly perovskite light harvester. Chemical Engineering Journal, 2020, 391, 123629.	12.7	16
112	Dry Mechanochemical Synthesis of Highly Luminescent, Blue and Green Hybrid Perovskite Solids. Advanced Optical Materials, 2020, 8, 1901494.	7.3	16
113	Understanding Molecular Structures of Buried Interfaces in Halide Perovskite Photovoltaic Devices Nondestructively with Subâ€Monolayer Sensitivity Using Sum Frequency Generation Vibrational Spectroscopy. Advanced Energy Materials, 2020, 10, 1903053.	19.5	36
114	The Low-Dimensional Three-Dimensional Tin Halide Perovskite: Film Characterization and Device Performance. Energies, 2020, 13, 2.	3.1	44
115	The chemistry and energetics of the interface between metal halide perovskite and atomic layer deposited metal oxides. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	2.1	10
116	Highly Conductive P-Type MAPbI3 Films and Crystals via Sodium Doping. Frontiers in Chemistry, 2020, 8, 754.	3.6	18
117	Structural Features and Optical Properties of CH3NH3Pb(1â°'x)SnxCl3 Thin-Film Perovskites for Photovoltaic Applications. Journal of Electronic Materials, 2020, 49, 7133-7143.	2.2	9
118	g-C3N4@PMo12 composite material double adjustment improves the performance of perovskite-based photovoltaic devices. Solar Energy, 2020, 209, 363-370.	6.1	13
119	Nanogap-Rich TiO ₂ Film for 2000-Fold Field Enhancement with High Reproducibility. Journal of Physical Chemistry Letters, 2020, 11, 8799-8809.	4.6	10
120	A data review on certified perovskite solar cells efficiency and I-V metrics: Insights into materials selection and process scaling up. Solar Energy, 2020, 209, 21-29.	6.1	5
121	Unique Thermoelectric Properties Induced by Intrinsic Nanostructuring in a Polycrystalline Thinâ€Film Twoâ€Dimensional Metal–Organic Framework, Copper Benzenehexathiol. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000437.	1.8	16
122	Halide Perovskite Solar Cells with Biocompatibility. Advanced Energy and Sustainability Research, 2020, 1, 2000028.	5.8	10
123	Bis(diphenylamine)-Tethered Carbazolyl Anthracene Derivatives as Hole-Transporting Materials for Stable and High-Performance Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 10752-10764.	5.1	12
124	Tellurium complex polyhalides: narrow bandgap photoactive materials for electronic applications. Journal of Materials Chemistry A, 2020, 8, 21988-21992.	10.3	8
125	Synthesis of luminescent core/shell α-Zn ₃ P ₂ /ZnS quantum dots. Nanoscale, 2020, 12, 20952-20964.	5.6	2
126	Historical Analysis of Highâ€Efficiency, Largeâ€Area Solar Cells: Toward Upscaling of Perovskite Solar Cells. Advanced Materials, 2020, 32, e2002202.	21.0	103
127	Infrared Spectra of the CH ₃ NH ₃ PbI ₃ Hybrid Perovskite: Signatures of Phase Transitions and of Organic Cation Dynamics. Journal of Physical Chemistry C, 2020, 124, 23307-23316	3.1	5

ARTICLE IF CITATIONS # Photoinduced ion-redistribution in CH₃NH₃PbI₃perovskite solar 128 2.8 13 cells. Physical Chemistry Chemical Physics, 2020, 22, 25118-25125. Lead-free halide perovskite photovoltaics: Challenges, open questions, and opportunities. APL 129 5.1 Materials, 2020, 8, . (HPy)₂(Py)CuBi₃12</sub>, a low bandgap metal halide photoconductor. 130 3.3 11 Dalton Transactions, 2020, 49, 14397-14400. Structure-induced optoelectronic properties of phenothiazine-based materials. Journal of Materials Chemistry C, 2020, 8, 15486-15506. Origin of temperature-dependent performance of hole-transport-layer-free perovskite solar cells 132 2.6 7 doped with CuSCN. Organic Electronics, 2020, 87, 105958. Solarâ€Driven Electrochemical CO₂ Reduction with Heterogeneous Catalysts. Advanced Energy Materials, 2021, 11, 2002652. Pâ€113: In Situ Fabrication of Organicâ€Inorganic Perovskite Polymer Composite Films for Ultrawide Color 134 0.3 1 Gamut LCD display. Digest of Technical Papers SID International Symposium, 2020, 51, 1775-1778. Traps in metal halide perovskites: characterization and passivation. Nanoscale, 2020, 12, 22425-22451. 5.6 26 Surface Property Tuning of Methylammonium Lead Iodide by Plasma for Use in Planar Perovskite Solar 136 3.5 7 Cells. ACS Omega, 2020, 5, 18384-18390. Surface Sulfuration of NiO Boosts the Performance of Inverted Perovskite Solar Cells. Solar Rrl, 5.8 2020, 4, 2000270. Improving Efficiency and Stability of Perovskite Solar Cells Enabled by A Near-Infrared-Absorbing 138 24.0 88 Moisture Barrier. Joule, 2020, 4, 1575-1593. Coreâ€"Shell CsPbBr₃@CdS Quantum Dots with Enhanced Stability and Photoluminescence 5.0 Quantum Yields for Optoelectronic Devices. ACS Applied Nano Materials, 2020, 3, 7563-7571. Atomic Layer Deposition of an Effective Interface Layer of TiN for Efficient and Hysteresis-Free 140 8.0 30 Mesoscopic Perovskite Solar Cells. ACS Applied Materials & amp; Interfaces, 2020, 12, 8098-8106. Perovskite Solar Cells for BIPV Application: A Review. Buildings, 2020, 10, 129. 141 3.1 Improving Stability of Lead Halide Perovskite via PbF₂ Layer Covering. Journal of Physical 142 4.6 13 Chemistry Letters, 2020, 11, 6266-6272. Optimizing Performance and Operational Stability of CsPbl₃ Quantum-Dot-Based 143 24 Light-Emitting Diodes by Interface Engineering. ACS Applied Electronic Materials, 2020, 2, 2525-2534. Formamidiniumâ€Based Dionâ€Jacobson Layered Hybrid Perovskites: Structural Complexity and 144 14.9 61 Optoelectronic Properties. Advanced Functional Materials, 2020, 30, 2003428. Fabrication and Characterization of Flexible Three-Phase ZnO-Graphene-Epoxy Electro-Active Thin-Film 145 Nanocomposites: Towards Applications in Wearable Biomedical Devices. Journal of Composites Science, 2020, 4, 88.

#	Article	IF	CITATIONS
146	Perovskite Electronic Ratchets for Energy Harvesting. Advanced Electronic Materials, 2020, 6, 2000831.	5.1	7
147	Thermal conductivity of CsPbBr3 halide perovskite: Photoacoustic measurements and molecular dynamics analysis. AIP Conference Proceedings, 2020, , .	0.4	2
148	Recent Progress in Fabrication of Antimony/Bismuth Chalcohalides for Lead-Free Solar Cell Applications. Nanomaterials, 2020, 10, 2284.	4.1	22
149	One-Step Coating of Full-Coverage CsPbBr ₃ Thin Films via Mist Deposition for All-Inorganic Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 11523-11528.	5.1	13
150	Thermosetting Polyurethane Resins as Low-Cost, Easily Scalable, and Effective Oxygen and Moisture Barriers for Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 54862-54875.	8.0	30
151	Voltage bias stress effects in metal halide perovskites are strongly dependent on morphology and ion migration pathways. Journal of Materials Chemistry A, 2020, 8, 25109-25119.	10.3	11
152	How the Structures and Properties of Pristine and Anion Vacancy Defective Organic–Inorganic Hybrid Double Perovskites MA ₂ AgIn(Br _{<i>x</i>} 1si€" <i>x</i> 1si€" <i>x</i>) ₆ Vary with Br Content <i>x</i> . Journal of Physical Chemistry Letters, 2020, 11, 10315-10322.	4.6	6
153	Low-Temperature Energy Transfer <i>via</i> Self-Trapped Excitons in Mn ²⁺ -Doped 2D Organometal Halide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 10368-10374.	4.6	9
154	Temperature-Dependent Electroabsorption Spectra and Exciton Binding Energy in a Perovskite CH ₃ NH ₃ PbI ₃ Nanocrystalline Film. ACS Applied Energy Materials, 2020, 3, 11830-11840.	5.1	10
155	Unveiling hot carrier relaxation and carrier transport mechanisms in quasi-two-dimensional layered perovskites. Journal of Materials Chemistry A, 2020, 8, 25402-25410.	10.3	25
156	Tin and germanium substitution in lead free perovskite solar cell: current status and future trends. IOP Conference Series: Materials Science and Engineering, 2020, 957, 012057.	0.6	5
157	Two-Dimensional Hybrid Perovskite Ferroelectric Induced by Perfluorinated Substitution. Journal of the American Chemical Society, 2020, 142, 20208-20215.	13.7	96
158	Controlled Growth of Large Grains in CH ₃ NH ₃ PbI ₃ Perovskite Films Mediated by an Intermediate Liquid Phase without an Antisolvent for Efficient Solar Cells. ACS Applied Energy Materials, 2020, 3, 12484-12493.	5.1	13
159	Interfacial electronic features in methyl-ammonium lead iodide and p-type oxide heterostructures: new insights for inverted perovskite solar cells. Physical Chemistry Chemical Physics, 2020, 22, 28401-28413.	2.8	12
160	Self-Doping a Hole-Transporting Layer Based on a Conjugated Polyelectrolyte Enables Efficient and Stable Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 11724-11731.	5.1	10
161	Influence of Dimethyl Sulfoxide on the Structural Topology during Crystallization of Pbl ₂ . Inorganic Chemistry, 2020, 59, 16799-16803.	4.0	3
162	The Future of Perovskite Photovoltaics—Thermal Evaporation or Solution Processing?. Advanced Energy Materials, 2020, 10, 2003073.	19.5	135
163	Microscopic Picture of Electron–Phonon Interaction in Two-Dimensional Halide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 9975-9982.	4.6	16

#	Article	IF	CITATIONS
164	Perovskite Tandem Solar Cells: From Fundamentals to Commercial Deployment. Chemical Reviews, 2020, 120, 9835-9950.	47.7	248
165	Electrical and Optical Properties of Nickelâ€Oxide Films for Efficient Perovskite Solar Cells. Small Methods, 2020, 4, 2000454.	8.6	37
166	Hybrid Perovskites with Larger Organic Cations Reveal Autocatalytic Degradation Kinetics and Increased Stability under Light. Inorganic Chemistry, 2020, 59, 12176-12186.	4.0	12
167	Perovskite-Inspired High Stability Organometal Antimony(V) Halide Thin Films by Post-Deposition Bromination. , 2020, 2, 1203-1210.		2
168	Progress and perspective on CsPbX3 nanocrystals for light emitting diodes and solar cells. Journal of Applied Physics, 2020, 128, .	2.5	20
169	Asymmetric Sulfonyldibenzene-Based Hole-Transporting Materials for Efficient Perovskite Solar Cells: Inspiration from Organic Thermally-Activated Delayed Fluorescence Molecules. , 2020, 2, 1093-1100.		16
170	Emerging piezochromism in transparent lead free perovskite Rb3X2I9 (X = Sb, Bi) under compression: A comparative theoretical insight. Journal of Applied Physics, 2020, 128, 045102.	2.5	5
171	Stabilizing Organic–Inorganic Lead Halide Perovskite Solar Cells With Efficiency Beyond 20%. Frontiers in Chemistry, 2020, 8, 592.	3.6	30
172	Low-temperature processed rare-earth doped brookite TiO2 scaffold for UV stable, hysteresis-free and high-performance perovskite solar cells. Nano Energy, 2020, 77, 105183.	16.0	58
173	Unravelling the structural complexity and photophysical properties of adamantyl-based layered hybrid perovskites. Journal of Materials Chemistry A, 2020, 8, 17732-17740.	10.3	14
174	Bifunctional Surface Engineering on SnO ₂ Reduces Energy Loss in Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2796-2801.	17.4	239
175	The effect of solution processed nickel oxide and nickel oxide by-products on planar MAPbI3 perovskite solar cells. Applied Physics Letters, 2020, 117, .	3.3	6
176	Indium Doping of Lead-Free Perovskite Cs2SnI6. Frontiers in Chemistry, 2020, 8, 564.	3.6	12
177	Perovskite Nanoâ€Heterojunctions: Synthesis, Structures, Properties, Challenges, and Prospects. Small Structures, 2020, 1, 2000009.	12.0	52
178	Roll-transferred graphene encapsulant for robust perovskite solar cells. Nano Energy, 2020, 77, 105182.	16.0	24
179	Current Challenges in the Development of Quantum Dot Sensitized Solar Cells. Advanced Energy Materials, 2020, 10, 2001774.	19.5	48
180	Electronic and Optical Modulation of Metal-Doped Hybrid Organic–Inorganic Perovskites Crystals by Post-Treatment Control. ACS Applied Energy Materials, 2020, 3, 7500-7511.	5.1	10
181	Effect of solvent vapour annealing on bismuth triiodide film for photovoltaic applications and its optoelectronic properties. Journal of Materials Chemistry C, 2020, 8, 12173-12180.	5.5	19

	Сітатіс	CITATION REPORT	
#	Article	IF	CITATIONS
182	Dimensionality engineering of metal halide perovskites. Frontiers of Optoelectronics, 2020, 13, 196-224.	3.7	25
183	Electron transport enhancement of perovskite solar cell due to spontaneous polarization of Li+-doped BaTiO3. Solid State Sciences, 2020, 108, 106387.	3.2	6
184	Role of Individual Bands in the Unusual Temperature-Dependent Band Gap of Methylammonium Lead Iodide. Journal of Physical Chemistry C, 2020, 124, 19841-19848.	3.1	7
185	Preferred Growth Direction by PbS Nanoplatelets Preserves Perovskite Infrared Light Harvesting for Stable, Reproducible, and Efficient Solar Cells. Advanced Energy Materials, 2020, 10, 2002422.	19.5	20
186	Defects and Their Passivation in Hybrid Halide Perovskites toward Solar Cell Applications. Solar Rrl, 2020, 4, 2000505.	5.8	47
187	Progress and prospects for ultrathin solar cells. Nature Energy, 2020, 5, 959-972.	39.5	168
188	Perovskiteâ€Derivative Valleytronics. Advanced Materials, 2020, 32, e2004111.	21.0	19
189	Small Number of Defects per Nanostructure Leads to "Digital―Quenching of Photoluminescence: The Case of Metal Halide Perovskites. Advanced Energy Materials, 2020, 10, 2001724.	19.5	21
191	Enhancing electrochemiluminescence of FAPbBr3 nanocrystals by using carbon nanotubes and TiO2 nanoparticles as conductivity and co-reaction accelerator for dopamine determination. Electrochimica Acta, 2020, 360, 136992.	5.2	19
192	Recent Advancements in Near-Infrared Perovskite Light-Emitting Diodes. ACS Applied Electronic Materials, 2020, 2, 3470-3490.	4.3	40
193	Emerging piezochromism in lead free alkaline earth chalcogenide perovskite AZrS ₃ (A =) Tj ETG	Qq0 0 0 rgBT /Ov	verlock 10 Tf
194	Recent Advances of Dopant-Free Polymer Hole-Transporting Materials for Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 10282-10302.	5.1	50
195	Metal Halide Perovskite@Metalâ€Organic Framework Hybrids: Synthesis, Design, Properties, and Applications. Small, 2020, 16, e2004891.	10.0	46
196	Incorporating quantum dots for high efficiency and stable perovskite photovoltaics. Journal of Materials Chemistry A, 2020, 8, 25017-25027.	10.3	24
197	Unravelling the origin of the photocarrier dynamics of fullerene-derivative passivation of SnO ₂ electron transporters in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 23607-23616.	10.3	30
198	Nearâ€Infraredâ€Transparent Perovskite Solar Cells and Perovskiteâ€Based Tandem Photovoltaics. Small Methods, 2020, 4, 2000395.	8.6	63
199	Applications of Sensitized Semiconductors as Heterogeneous Visible-Light Photocatalysts in Organic Synthesis. ACS Sustainable Chemistry and Engineering, 2020, 8, 15405-15429.	6.7	59
200	Low-Temperature Processed TiOx Electron Transport Layer for Efficient Planar Perovskite Solar Cells. Nanomaterials, 2020, 10, 1676.	4.1	13

#	Article	IF	CITATIONS
201	High-Voltage and Green-Emitting Perovskite Quantum Dot Solar Cells via Solvent Miscibility-Induced Solid-State Ligand Exchange. Chemistry of Materials, 2020, 32, 8808-8818.	6.7	34
202	Photo-assisted deposited titanium dioxide for all-inorganic CsPbl2Br perovskite solar cells with high efficiency exceeding 13.6%. Applied Physics Letters, 2020, 117, 093902.	3.3	2
203	Dynamic plasmonic color generation enabled by functional materials. Science Advances, 2020, 6, .	10.3	94
204	Efficiency Enhancement of CIGS Solar Cells via Recombination Passivation. ACS Applied Energy Materials, 2020, 3, 9459-9467.	5.1	13
205	Effect of halide-mixing on tolerance factor and charge-carrier dynamics in (CH3NH3PbBr3â^'xClx) perovskites powders. Journal of Materials Science: Materials in Electronics, 2020, 31, 19415-19428.	2.2	4
206	Perovskite Color Detectors: Approaching the Efficiency Limit. ACS Applied Materials & Interfaces, 2020, 12, 47831-47839.	8.0	29
207	Seleniumâ€Based Solar Cell with Conjugated Polymers as Both Electron and Hole Transport Layers to Realize High Water Tolerance as well as Good Longâ€Term and Thermal Stability. Solar Rrl, 2020, 4, 2000425.	5.8	3
208	Constructing Caesium-Based Lead-Free Perovskite Photodetector Enabling Self-Powered Operation with Extended Spectral Response. ACS Applied Materials & amp; Interfaces, 2020, 12, 46317-46329.	8.0	36
209	Rashba Splitting in Two Dimensional Hybrid Perovskite Materials for High Efficient Solar and Heat Energy Harvesting. Journal of Physical Chemistry Letters, 2020, 11, 7679-7686.	4.6	14
210	Gradient Engineered Light Absorption Layer for Enhanced Carrier Separation Efficiency in Perovskite Solar Cells. Nanoscale Research Letters, 2020, 15, 127.	5.7	2
211	Antisolvents in Perovskite Solar Cells: Importance, Issues, and Alternatives. Advanced Materials Interfaces, 2020, 7, 2000950.	3.7	94
212	Exciton and Carrier Dynamics in Two-Dimensional Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 7692-7701.	4.6	33
213	Teaching an Old Anchoring Group New Tricks: Enabling Low-Cost, Eco-Friendly Hole-Transporting Materials for Efficient and Stable Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 16632-16643.	13.7	154
214	Materials requirements for improving the electron transport layer/perovskite interface of perovskite solar cells determined via numerical modeling. MRS Advances, 2020, 5, 2603-2610.	0.9	3
215	Grapheneâ€Based Materials in Planar Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000502.	5.8	36
216	Quantum-assisted photoelectric gain effects in perovskite solar cells. NPG Asia Materials, 2020, 12, .	7.9	12
217	Perovskiteâ€Compatible Carbon Electrode Improving the Efficiency and Stability of CsPbI ₂ Br Solar Cells. Solar Rrl, 2020, 4, 2000431.	5.8	30
218	Conformational and Compositional Tuning of Phenanthrocarbazole-Based Dopant-Free Hole-Transport Polymers Boosting the Performance of Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 17681-17692.	13.7	83

#	Article	IF	CITATIONS
219	Synthesis and <i>in situ</i> ion irradiation of A-site deficient zirconate perovskite ceramics. Journal of Materials Chemistry A, 2020, 8, 19454-19466.	10.3	7
220	Atomic Layer Deposition of PbS Thin Films at Low Temperatures. Chemistry of Materials, 2020, 32, 8216-8228.	6.7	16
221	An Emerging Leadâ€Free Doubleâ€Perovskite Cs ₂ AgFeCl ₆ :In Single Crystal. Advanced Functional Materials, 2020, 30, 2002225.	14.9	48
222	Novel Electron Transport Layer Material for Perovskite Solar Cells with Over 22% Efficiency and Longâ€Term Stability. Advanced Functional Materials, 2020, 30, 2004933.	14.9	55
223	Developing Low-Cost, High Performance, Robust and Sustainable Perovskite Electrocatalytic Materials in the Electrochemical Sensors and Energy Sectors: "An Overview― Catalysts, 2020, 10, 938.	3.5	24
224	Hot Carrier Cooling and Recombination Dynamics of Chlorine-Doped Hybrid Perovskite Single Crystals. Journal of Physical Chemistry Letters, 2020, 11, 8430-8436.	4.6	11
225	Improving the Fill Factor of Perovskite Solar Cells by Employing an Amine-tethered Diketopyrrolopyrrole-Based Polymer as the Dopant-free Hole Transport Layer. ACS Applied Energy Materials, 2020, 3, 9600-9609.	5.1	26
226	Potassium doping-induced variations in the structures and photoelectric properties of a MAPbl ₃ perovskite and a MAPbl ₃ /TiO ₂ junction. Physical Chemistry Chemical Physics, 2020, 22, 20553-20561.	2.8	6
227	Interpreting Ideality Factors for Planar Perovskite Solar Cells: Ectypal Diode Theory for Steady-State Operation. Physical Review Applied, 2020, 14, .	3.8	42
228	Improved Electrical and Structural Stability in HTL-Free Perovskite Solar Cells by Vacuum Curing Treatment. Energies, 2020, 13, 3953.	3.1	7
229	Structural regulation and optical behavior of three-dimensional metal halide perovskites under pressure. Journal of Materials Chemistry C, 2020, 8, 12755-12767.	5.5	20
230	Effects of Photonic Curing Processing Conditions on MAPbI ₃ Film Properties and Solar Cell Performance. ACS Applied Energy Materials, 2020, 3, 8636-8645.	5.1	18
231	Designing a Multifunctional Magnetic Microtube with Enhanced Conductivity through Local Heterojunction Decoration of CsPbBr3 Nanocrystals. Journal of Physical Chemistry C, 2020, 124, 28580-28588.	3.1	0
232	Stress Effects on Vibrational Spectra of a Cubic Hybrid Perovskite: A Probe of Local Strain. Journal of Physical Chemistry C, 2020, 124, 27287-27299.	3.1	7
233	CsPbBr3 Nanocrystals-Based Polymer Nanocomposite Films: Effect of Polymer on Spectroscopic Properties and Moisture Tolerance. Energies, 2020, 13, 6730.	3.1	6
234	Strategies to Improve the Energy Storage Properties of Perovskite Lead-Free Relaxor Ferroelectrics: A Review. Materials, 2020, 13, 5742.	2.9	98
235	Fiber Electronics. , 2020, , .		4
236	CZTSSe Formation Mechanism Using a Cu/Zn/SnS Stacked Precursor: Origin of Triple CZTSSe Layer Formation. ACS Applied Materials & Interfaces, 2020, 12, 46037-46044.	8.0	4

#	Article	IF	CITATIONS
237	Three-Dimensional Lead Bromide Hybrid Ferroelectric Realized by Lattice Expansion. Journal of the American Chemical Society, 2020, 142, 19698-19704.	13.7	31
238	Photoluminescence Excitation Spectroscopy of Defectâ€Related States in MAPbl ₃ Perovskite Single Crystals. Advanced Optical Materials, 2021, 9, 2001327.	7.3	13
239	Monolithic Perovskite Tandem Solar Cells: A Review of the Present Status and Advanced Characterization Methods Toward 30% Efficiency. Advanced Energy Materials, 2020, 10, 1904102.	19.5	321
240	An Interlaboratory Study on the Stability of Allâ€Printable Hole Transport Material–Free Perovskite Solar Cells. Energy Technology, 2020, 8, 2000134.	3.8	18
241	Electron irradiation induced aging effects on radiative recombination properties of quadruple cation organic-inorganic perovskite layers. Emergent Materials, 2020, 3, 133-160.	5.7	4
242	Facile In Situ Fabrication of Cs ₄ PbBr ₆ /CsPbBr ₃ Nanocomposite Containing Polymer Films for Ultrawide Color Gamut Displays. Advanced Optical Materials, 2020, 8, 2000232.	7.3	45
243	High-humidity processed perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 10481-10518.	10.3	56
244	Mechanisms of exceptional grain growth and stability in formamidinium lead triiodide thin films for perovskite solar cells. Acta Materialia, 2020, 193, 10-18.	7.9	27
245	Tuning Surface Wettability of Buffer Layers by Incorporating Polyethylene Glycols for Enhanced Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 26670-26679.	8.0	20
246	The Impact of Atmosphere on Energetics of Lead Halide Perovskites. Advanced Energy Materials, 2020, 10, 2000908.	19.5	12
247	Photoluminescenceâ€Based Characterization of Halide Perovskites for Photovoltaics. Advanced Energy Materials, 2020, 10, 1904134.	19.5	299
248	Sequential Ultrasonic Spray oating Planar Three Layers for 1 cm ² Active Area Inverted Perovskite Solar Cells. Energy Technology, 2020, 8, 2000216.	3.8	10
249	How the Mixed Cations (Guanidium, Formamidinium, and Phenylethylamine) in Tin Iodide Perovskites Affect Their Charge Carrier Dynamics and Solar Cell Characteristics. Journal of Physical Chemistry Letters, 2020, 11, 4043-4051.	4.6	19
250	Confinement-Driven Ferroelectricity in a Two-Dimensional Hybrid Lead Iodide Perovskite. Journal of the American Chemical Society, 2020, 142, 10212-10218.	13.7	113
251	Emergence of Ferroelectricity in Halide Perovskites. Small Methods, 2020, 4, 2000149.	8.6	95
252	Decoupling Contributions of Chargeâ€Transport Interlayers to Lightâ€Induced Degradation of pâ€iâ€n Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000191.	5.8	18
253	Band Gap-Tunable, Chiral Hybrid Metal Halides Displaying Second-Harmonic Generation. Chemistry of Materials, 2020, 32, 4801-4807.	6.7	67
254	Preventing phase segregation in mixed-halide perovskites: a perspective. Energy and Environmental Science, 2020, 13, 2024-2046.	30.8	221

#	Article	IF	CITATIONS
255	Reversible Decomposition of Single-Crystal Methylammonium Lead Iodide Perovskite Nanorods. ACS Central Science, 2020, 6, 959-968.	11.3	4
256	Solvent vapour annealing of methylammonium lead halide perovskite: what's the catch?. Journal of Materials Chemistry A, 2020, 8, 10943-10956.	10.3	11
257	Identifying, understanding and controlling defects and traps in halide perovskites for optoelectronic devices: a review. Journal Physics D: Applied Physics, 2020, 53, 373001.	2.8	20
258	Active layer thickness dependence of optoelectronic performance in CH3NH3PbI3 perovskite-based planar heterojunction photodiodes. Optical Materials, 2020, 106, 109960.	3.6	8
259	Can Machines "Learn―Halide Perovskite Crystal Formation without Accurate Physicochemical Features?. Journal of Physical Chemistry C, 2020, 124, 13982-13992.	3.1	11
260	Surface Treatment of Perovskite Layer with Guanidinium Iodide Leads to Enhanced Moisture Stability and Improved Efficiency of Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 2000105.	3.7	39
261	Inorganic and Hybrid Interfacial Materials for Organic and Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2000910.	19.5	54
262	Highly stable and Efficient Perovskite Solar Cells Based on FAMAâ€Perovskiteâ€Cu:NiO Composites with 20.7% Efficiency and 80.5% Fill Factor. Advanced Energy Materials, 2020, 10, 2000967.	19.5	47
263	Effect of Crystal Symmetry on the Spin States of Fe ³⁺ and Vibration Modes in Lead-free Double-Perovskite Cs ₂ AgBi(Fe)Br ₆ . Journal of Physical Chemistry Letters, 2020, 11, 4873-4878.	4.6	11
264	Residual PbI ₂ Beneficial in the Bulk or at the Interface? An Investigation Study in Sputtered NiO <i>_x</i> Hole-Transport-Layer-Based Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 6215-6221.	5.1	24
265	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.	17.4	96
266	Tackling Performance Challenges in Organic Photovoltaics: An Overview about Compatibilizers. Molecules, 2020, 25, 2200.	3.8	20
267	Aggregate-State Effects in the Atomistic Modeling of Organic Materials for Electrochemical Energy Conversion and Storage Devices: A Perspective. Molecules, 2020, 25, 2233.	3.8	4
268	Unraveling the roles of mesoporous TiO2 framework in CH3NH3PbI3 perovskite solar cells. Science China Materials, 2020, 63, 1151-1162.	6.3	24
269	Electrogenerated Chemiluminescence and Spectroelectrochemistry Characteristics of Blue Photoluminescence Perovskite Quantum Dots. ACS Applied Materials & Interfaces, 2020, 12, 27443-27452.	8.0	10
270	High-Throughput Screening of Antisolvents for the Deposition of High-Quality Perovskite Thin Films. ACS Applied Materials & Interfaces, 2020, 12, 26026-26032.	8.0	11
271	All-Inorganic CsPbBr3 Perovskite Films Prepared by Single Source Thermal Ablation. Frontiers in Chemistry, 2020, 8, 313.	3.6	28
272	Recent Progress on Lightâ€Emitting Electrochemical Cells with Nonpolymeric Materials. Advanced Functional Materials, 2020, 30, 1908641.	14.9	33

		CITATION REPORT		
#	ARTICLE	(0.1185 a		CITATIONS
273	Metal Halide Perovskites in Quantum Dot Solar Cells: Progress and Prospects. Joule, 2020, 4, 11	ol-1185. 2	24.0	211
274	In situ studies of the degradation mechanisms of perovskite solar cells. EcoMat, 2020, 2, e1202.	5. 1	1.9	123
275	Finding junction partners for CsPbI3 in a two-terminal tandem solar cell: A theoretical prospect. Energy, 2020, 75, 104866.	Nano 1	6.0	39
276	Low temperature synthesis of anatase TiO2 nanocrystals using an organic-inorganic gel precurso Powder Technology, 2020, 368, 237-244.) DT	1.2	10
277	Lewis acid/base approach for efficacious defect passivation in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 12201-12225.	1	0.3	149
278	A Potential Checkmate to Lead: Bismuth in Organometal Halide Perovskites, Structure, Propertie Applications. Advanced Science, 2020, 7, 1903143.	s, and 1	1.2	60
279	Dopantâ€Free Crossconjugated Holeâ€Transporting Polymers for Highly Efficient Perovskite Sol Advanced Science, 2020, 7, 1903331.	ar Cells. 1	1.2	55
280	Circularly Polarized Photoluminescence from Chiral Perovskite Thin Films at Room Temperature. Nano, 2020, 14, 7610-7616.	ACS 1	4.6	86
281	Dynamics of Photo-Generated Carriers across the Interface between CsPbBr ₃ Nanocrystals and Au–Ag Nanostructured Film, and Its Control via Ultrathin MgO Interface Lay Omega, 2020, 5, 11915-11922.	er. ACS a	3.5	7
282	Incorporating Solution-Processed Mesoporous WO ₃ as an Interfacial Cathode Buff Layer for Photovoltaic Applications. Journal of Physical Chemistry A, 2020, 124, 5709-5719.	er 2	2.5	23
283	Impact of Moisture on Mobility in Methylammonium Lead Iodide and Formamidinium Lead Iodide Journal of Physical Chemistry Letters, 2020, 11, 4976-4983.	2. 4	1.6	17
284	Electron-beam-induced cracking in organic-inorganic halide perovskite thin films. Scripta Materia 2020, 187, 88-92.	lia, e	5.2	16
285	Heat capacity and thermodynamic functions of di-,tri- and tetramethylammonium lead iodide perovskites from 289 to 473†K. Thermochimica Acta, 2020, 687, 178583.	2	2.7	3
286	Doping and ion substitution in colloidal metal halide perovskite nanocrystals. Chemical Society Reviews, 2020, 49, 4953-5007.	8	38.1	269
287	Self-assembly of block copolymers towards mesoporous materials for energy storage and conversive systems. Chemical Society Reviews, 2020, 49, 4681-4736.	sion g	38.1	311
288	Cs ₄ PbI ₆ â€Mediated Synthesis of Thermodynamically Stable FA _{0.15} Cs _{0.85} PbI ₃ Perovskite Solar Cells. Advanced Mate 2020, 32, e2001054.	erials, 2	21.0	41
289	Interface Engineering Driven Stabilization of Halide Perovskites against Moisture, Heat, and Ligh Optoelectronic Applications. Advanced Energy Materials, 2020, 10, 2000768.	t for 1	9.5	62
290	Improved environmental stability of cobalt incorporated methylammonium lead iodide perovskit resistive switching applications. Chemical Physics, 2020, 538, 110900.	e for 1	L.9	3

#	Article	IF	CITATIONS
291	Selected Electrochemical Properties of 4,4'-((1E,1'E)-((1,2,4-Thiadiazole-3,5-diyl)bis(azaneylylidene))bis(methaneylylidene))bis(N,N-di-p-tolylanili towards Perovskite Solar Cells with 14.4% Efficiency. Materials, 2020, 13, 2440.	ne }. 9	15
292	Molecular materials as interfacial layers and additives in perovskite solar cells. Chemical Society Reviews, 2020, 49, 4496-4526.	38.1	130
293	Chirality control in white-light emitting 2D perovskites. Journal of Materials Chemistry C, 2020, 8, 9602-9607.	5.5	24
294	2â€Thiopheneformamidiniumâ€Based 2D Ruddlesden–Popper Perovskite Solar Cells with Efficiency of 16.72% and Negligible Hysteresis. Advanced Energy Materials, 2020, 10, 2000694.	19.5	102
295	Band gap engineering of lead halide perovskite nanocrystals via room temperature bi-phasic anion exchange reactions. Materials Today: Proceedings, 2020, 33, 1274-1276.	1.8	7
296	Perovskite Materials: Recent Advancements and Challenges. , 2020, , .		3
297	Nanocarbon. , 2020, , 131-155.		0
298	A chiral lead-free photoactive hybrid material with a narrow bandgap. Inorganic Chemistry Frontiers, 2020, 7, 2770-2777.	6.0	16
299	Recent advances in synthesis, surface chemistry of cesium lead-free halide perovskite nanocrystals and their potentialÂapplications. , 2020, , 157-228.		2
300	Diammonium Porphyrin-Induced CsPbBr3 Nanocrystals to Stabilize Perovskite Films for Efficient and Stable Solar Cells. ACS Applied Materials & amp; Interfaces, 2020, 12, 16236-16242.	8.0	31
301	Shining Light on the Photoluminescence Properties of Metal Halide Perovskites. Advanced Functional Materials, 2020, 30, 1910004.	14.9	101
302	CsPbBr ₃ –Ti ₃ C ₂ T <i>_x</i> MXene QD/QD Heterojunction: Photoluminescence Quenching, Charge Transfer, and Cd Ion Sensing Application. ACS Applied Nano Materials, 2020, 3, 3305-3314.	5.0	41
303	Dielectric function of hybrid perovskites at finite temperature investigated by classical molecular dynamics. Journal of Chemical Physics, 2020, 152, 104705.	3.0	17
304	Low-Temperature Synthesized Nb-Doped TiO ₂ Electron Transport Layer Enabling High-Efficiency Perovskite Solar Cells by Band Alignment Tuning. ACS Applied Materials & Interfaces, 2020, 12, 15175-15182.	8.0	29
305	Commercially available jeffamine additives for p–i–n perovskite solar cells. Nanotechnology, 2020, 31, 274002.	2.6	7
306	Temperature-Dependent Optical Band Gap in CsPbBr ₃ , MAPbBr ₃ , and FAPbBr ₃ Single Crystals. Journal of Physical Chemistry Letters, 2020, 11, 2490-2496.	4.6	173
307	Precise Molecular Design Toward Organic–Inorganic Zinc Chloride ABX ₃ Ferroelectrics. Journal of the American Chemical Society, 2020, 142, 6236-6243.	13.7	74
308	Altered Stability and Degradation Pathway of CH ₃ NH ₃ PbI ₃ in Contact with Metal Oxide. ACS Energy Letters, 2020, 5, 1147-1152.	17.4	51

ARTICLE IF CITATIONS Development of Novel Mixed Halide/Superhalide Tin-Based Perovskites for Mesoscopic Carbon-Based 309 4.6 26 Solar Cells. Journal of Physical Chemistry Letters, 2020, 11, 2443-2448. Comparing the excited-state properties of a mixed-cation–mixed-halide perovskite to methylammonium lead iodide. Journal of Chemical Physics, 2020, 152, 104703. Nearâ€Infrared Emission from Tinâ€"Lead (Snâ€"Pb) Alloyed Perovskite Quantum Dots by Sodium Doping. 311 2.0 10 Angewandte Chemie, 2020, 132, 8499-8502. A Series of Tetrathiafulvalene Bismuth Chlorides: Effects of Oxidation States of Cations on Structures and Electric Properties. Inorganic Chemistry, 2020, 59, 5161-5169. Nanoscale Perovskiteâ€Sensitized Solar Cell Revisited: Dyeâ€Cell or Perovskiteâ€Cell?. ChemSusChem, 2020, 313 6.8 10 13, 2571-2576. Enhanced Device Performance with Passivation of the TiO₂ Surface Using a Carboxylic Acid Fullerene Monolayer for a SnPb Perovskite Solar Cell with a Normal Planar Structure. ACS 8.0 24 Applied Materials & amp; Interfaces, 2020, 12, 17776-17782. Semiconductor Quantum Dots for Memories and Neuromorphic Computing Systems. Chemical 315 47.7 203 Reviews, 2020, 120, 3941-4006. Enhancing Charge Transport of 2D Perovskite Passivation Agent for Wideâ€Bandgap Perovskite Solar 5.8 79 Cells Beyond 21%. Solar Rrl, 2020, 4, 2000082. Unraveling the Formation Mechanism and Ferroelastic Behavior of MAPbl₃ Perovskite Thin 317 6.7 18 Films Prepared in the Presence of Chloride. Chemistry of Materials, 2020, 32, 3346-3357. Polarons in Halide Perovskites: A Perspective. Journal of Physical Chemistry Letters, 2020, 11, 3271-3286. 4.6 Local Structure and Dynamics in Methylammonium, Formamidinium, and Cesium Tin(II) Mixed-Halide Perovskites from ¹¹⁹Sn Solid-State NMR. Journal of the American Chemical Society, 2020, 319 13.766 142, 7813-7826. Homochiral Nickel Nitrite ABX₃ (X = NO₂^{â€"}) Perovskite Ferroelectrics. Journal of the American Chemical Society, 2020, 142, 6946-6950. Revealing the Role of Aggregation and Surface Chemistry in the Biâ€phasic Anion Exchange Reactions of 321 1.5 9 Cesium Lead Halide Perovskites. ChemistrySelect, 2020, 5, 4034-4039. Robust Wavelength-Converting and Lasing Media from Wafer-Scale Inorganic Perovskites Enabled by a Protective Surface Layer. Journal of Physical Chemistry C, 2020, 124, 8341-8346. 3.1 Methylammonium Lead Tribromide Single Crystal Detectors towards Robust Gammaâ€Ray Photon 323 7.3 18 Sensing. Advanced Optical Materials, 2020, 8, 2000233. Interfacial engineering for organic and perovskite solar cells using molecular materials. Journal 324 Physics D: Applied Physics, 2020, 53, 263001. Nearâ€Infrared Emission from Tin–Lead (Sn–Pb) Alloyed Perovskite Quantum Dots by Sodium Doping. 325 13.8 38 Angewandte Chemie - International Edition, 2020, 59, 8421-8424. Dynamics of Chiral Cations in Two-Dimensional CuX₄ and PbX₄ Perovskites (X) Tj ETQq1, 10.784314 rgBT

#	Article	IF	CITATIONS
327	Aâ€5ite Cation Engineering of Metal Halide Perovskites: Version 3.0 of Efficient Tinâ€Based Leadâ€Free Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2000794.	14.9	81
328	Recent Progresses on Metal Halide Perovskite-Based Material as Potential Photocatalyst. Catalysts, 2020, 10, 709.	3.5	65
329	High-k Polymer Nanocomposite Materials for Technological Applications. Applied Sciences (Switzerland), 2020, 10, 4249.	2.5	13
330	Nechanisms of Spontaneous and Amplified Spontaneous Emission in <mmi:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>CH</mml:mi><mml:mn>3</mml:mn></mml:msub><mml: mathvariant="normal">I<mml:mn>3</mml:mn></mml: </mmi:math 	mi aJ&H <td>າmໄໝາi><mm< td=""></mm<></td>	າm ໄໝ າi> <mm< td=""></mm<>
332	Perovskite Thin Films Integrated in an Optical Waveguide. Physical Review Applied, 2020, 13, . Photoinduced charge transfer in transition metal dichalcogenide heterojunctions – towards next generation energy technologies. Energy and Environmental Science, 2020, 13, 2684-2740.	30.8	67
333	Recent advances and comprehensive insights on nickel oxide in emerging optoelectronic devices. Sustainable Energy and Fuels, 2020, 4, 4415-4458.	4.9	33
334	Understanding the interplay of stability and efficiency in A-site engineered lead halide perovskites. APL Materials, 2020, 8, .	5.1	57
335	Stability Improvement of Perovskite Solar Cells by Adding Sbâ€Xanthate to Precursor Solution. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000144.	1.8	3
336	Theoretical Progress on the Relationship between the Structures and Properties of Perovskite Solar Cells. Advanced Theory and Simulations, 2020, 3, 2000022.	2.8	10
337	An analysis of carrier dynamics in methylammonium lead triiodide perovskite solar cells using cross correlation noise spectroscopy. Applied Physics Letters, 2020, 116, .	3.3	5
338	Recent Progress on Cu 2 BaSn(S x Se 1– x) 4 : From Material to Solar Cell Applications. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000060.	1.8	4
339	Recent Developments of Mn(II)-Doped 2D-Layered and 2D Platelet Perovskite Nanostructures. Frontiers in Materials, 2020, 7, .	2.4	14
340	Organicâ€5altâ€Assisted Crystal Growth and Orientation of Quasiâ€2D Ruddlesden–Popper Perovskites for Solar Cells with Efficiency over 19%. Advanced Materials, 2020, 32, e2001470.	21.0	162
341	Cesium Acetate-Induced Interfacial Compositional Change and Graded Band Level in MAPbI ₃ Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 33631-33637.	8.0	18
342	Exploration of Electrochemical Reactions at Organic–Inorganic Halide Perovskite Interfaces via Machine Learning in In Situ Timeâ€ofâ€Flight Secondary Ion Mass Spectrometry. Advanced Functional Materials, 2020, 30, 2001995.	14.9	30
343	An investigation of the stirring duration effect on synthesized graphene oxide for dye-sensitized solar cells. PLoS ONE, 2020, 15, e0228322.	2.5	8
344	A single-phase brookite TiO ₂ nanoparticle bridge enhances the stability of perovskite solar cells. Sustainable Energy and Fuels, 2020, 4, 2009-2017.	4.9	25
345	Enhanced stability and efficiency in inverted perovskite solar cells through graphene doping of PEDOT:PSS hole transport layer. Materials and Design, 2020, 191, 108587.	7.0	43

#	Article	IF	CITATIONS
346	Liquid-like dielectric response is an origin of long polaron lifetime exceeding 10 μs in lead bromide perovskites. Journal of Chemical Physics, 2020, 152, 084704.	3.0	14
347	Design of Lead-Free and Stable Two-Dimensional Dion–Jacobson-Type Chalcogenide Perovskite A′La2B3S10 (A′ = Ba/Sr/Ca; B = Hf/Zr) with Optimal Band Gap, Strong Optical Absorption, and High Efficiency for Photovoltaics. Chemistry of Materials, 2020, 32, 2450-2460.	6.7	19
348	Perovskite hetero-anionic-sublattice interfaces for optoelectronics and nonconventional electronics. Nanoscale, 2020, 12, 7263-7272.	5.6	5
349	Stability diagrams, defect tolerance, and absorption coefficients of hybrid halide semiconductors: High-throughput first-principles characterization. Journal of Chemical Physics, 2020, 152, 084106.	3.0	22
350	Radiative and non-radiative losses by voltage-dependent in-situ photoluminescence in perovskite solar cell current-voltage curves. Journal of Luminescence, 2020, 222, 117106.	3.1	10
351	Chalcogenide Perovskite BaZrS ₃ : Thin Film Growth by Sputtering and Rapid Thermal Processing. ACS Applied Energy Materials, 2020, 3, 2762-2770.	5.1	59
352	Size-Dependent Pressure-Response of the Photoluminescence of CsPbBr ₃ Nanocrystals. Journal of Physical Chemistry Letters, 2020, 11, 1975-1980.	4.6	35
353	Enhanced Nonlinear Optical Coefficients of MAPbI3 Thin Films by Bismuth Doping. Journal of Physical Chemistry Letters, 2020, 11, 2188-2194.	4.6	15
354	Multinary Halogenido Bismuthates beyond the Double Perovskite Motif. Inorganic Chemistry, 2020, 59, 3394-3405.	4.0	17
355	A Three-Dimensional Lead Halide Perovskite-Related Ferroelectric. Journal of the American Chemical Society, 2020, 142, 4604-4608.	13.7	97
356	Lead-free perovskite [H ₃ NC ₆ H ₄ NH ₃]CuBr ₄ with both a bandgap of 1.43 eV and excellent stability. Journal of Materials Chemistry A, 2020, 8, 5484-5488.	10.3	20
357	Metal Oxide Oxidation Catalysts as Scaffolds for Perovskite Solar Cells. Materials, 2020, 13, 949.	2.9	5
358	Computational functionalityâ€driven design of semiconductors for optoelectronic applications. InformaÄnÃ-Materiály, 2020, 2, 879-904.	17.3	32
359	Development in the innovation of lead halide-based perovskite quantum dots from rare earth-doped garnet-based phosphors for light-emitting diodes. , 2020, , 21-56.		3
360	Origin of the anomalous Pb-Br bond dynamics in formamidinium lead bromide perovskites. Physical Review B, 2020, 101, .	3.2	14
361	Correlating Hysteresis and Stability with Organic Cation Composition in the Two-Step Solution-Processed Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 10588-10596.	8.0	27
362	Highly Efficient CsPbBr ₃ Planar Perovskite Solar Cells via Additive Engineering with NH ₄ SCN. ACS Applied Materials & Interfaces, 2020, 12, 10579-10587.	8.0	80
363	Enhancing Charge Carrier Delocalization in Perovskite Quantum Dot Solids with Energetically Aligned Conjugated Capping Ligands. ACS Energy Letters, 2020, 5, 817-825.	17.4	58

#	Article	IF	CITATIONS
364	Effects of Chlorine Mixing on Optoelectronics, Ion Migration, and Gamma-Ray Detection in Bromide Perovskites. Chemistry of Materials, 2020, 32, 1854-1863.	6.7	46
365	High voltage vacuum-processed perovskite solar cells with organic semiconducting interlayers. RSC Advances, 2020, 10, 6640-6646.	3.6	13
366	Materials chemistry and engineering in metal halide perovskite lasers. Chemical Society Reviews, 2020, 49, 951-982.	38.1	263
367	Halide perovskites: current issues and new strategies to push material and device stability. JPhys Energy, 2020, 2, 021005.	5.3	40
368	Facile healing of cracks in organic–inorganic halide perovskite thin films. Acta Materialia, 2020, 187, 112-121.	7.9	51
369	Research Frontiers in Energyâ€Related Materials and Applications for 2020–2030. Advanced Sustainable Systems, 2020, 4, 1900145.	5.3	30
370	Lead-free hybrid organic-inorganic perovskites for solar cell applications. Journal of Chemical Physics, 2020, 152, 014104.	3.0	6
371	Efficient CsSnl ₃ -based inorganic perovskite solar cells based on a mesoscopic metal oxide framework <i>via</i> incorporating a donor element. Journal of Materials Chemistry A, 2020, 8, 4118-4124.	10.3	75
372	Dependence of stability and electronic and optical properties of perovskite quantum dots on capping ligand chain length. Journal of Chemical Physics, 2020, 152, 034701.	3.0	13
373	Trap States, Electric Fields, and Phase Segregation in Mixedâ€Halide Perovskite Photovoltaic Devices. Advanced Energy Materials, 2020, 10, 1903488.	19.5	79
374	Is Cs ₂ TiBr ₆ a promising Pb-free perovskite for solar energy applications?. Journal of Materials Chemistry A, 2020, 8, 4049-4054.	10.3	62
375	Effect of different surface treatments of sputtered NiO <i> _X </i> on the photovoltaic parameters of perovskite solar cells: a correlation study. Applied Physics Express, 2020, 13, 025505.	2.4	28
376	High crystallinity and photovoltaic performance of CsPbI3 film enabled by secondary dimension. Journal of Energy Chemistry, 2020, 48, 181-186.	12.9	13
377	Optimization of platinum precursor concentration for new, fast and simple fabrication method of counter electrode for DSSC application. Optik, 2020, 206, 164314.	2.9	10
378	Structural and Electrical Properties of Lead-Free Perovskite: Bi(Sr0.25Ti0.25Fe0.5)O3. Journal of Inorganic and Organometallic Polymers and Materials, 2020, 30, 3026-3035.	3.7	15
379	Exfoliated Fluorographene Quantum Dots as Outstanding Passivants for Improved Flexible Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 22992-23001.	8.0	38
380	Effect of PbI2 surface treatment with DMSO vapor on the properties and photodetector characteristics of CH3NH3PbI3–Cl perovskite films synthesized by a PbS-to-PbI2-to-perovskite sequence. Organic Electronics, 2020, 84, 105773.	2.6	8
381	In-Situ Electropolymerized Polyamines as Dopant-Free Hole-Transporting Materials for Efficient and Stable Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 5058-5066.	5.1	26

#	Article	IF	CITATIONS
382	<i>V</i> _{OC} Over 1.4 V for Amorphous Tin-Oxide-Based Dopant-Free CsPbI ₂ Br Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 9725-9734.	13.7	162
383	Light soaking in metal halide perovskites studied via steady-state microwave conductivity. Communications Physics, 2020, 3, .	5.3	20
384	Effect of Grain Size on the Fracture Behavior of Organic-Inorganic Halide Perovskite Thin Films for Solar Cells. Scripta Materialia, 2020, 185, 47-50.	5.2	32
385	Enhanced photoconversion efficiency in cesium-antimony-halide perovskite derivatives by tuning crystallographic dimensionality. Applied Materials Today, 2020, 19, 100637.	4.3	32
386	Halogen-containing semiconductors: From artificial photosynthesis to unconventional computing. Coordination Chemistry Reviews, 2020, 415, 213316.	18.8	21
387	Two-dimensional copper (II) halide-based hybrid perovskite templated by 2-chloroethylammonium: Crystal structures, phase transitions, optical and electrical properties. Journal of Solid State Chemistry, 2020, 287, 121338.	2.9	18
388	Zero-power optoelectronic synaptic devices. Nano Energy, 2020, 73, 104790.	16.0	94
389	Perovskite solar cells based on the synergy between carbon electrodes and polyethylene glycol additive with excellent stability. Organic Electronics, 2020, 83, 105734.	2.6	16
390	Enriched Photophysical Properties and Thermal Stability of Tin(II) Substituted Lead-Based Perovskite Nanocrystals with Mixed Organic–Inorganic Cations. Journal of Physical Chemistry C, 2020, 124, 9611-9621.	3.1	21
391	Heterogeneous Cation–Lattice Interaction and Dynamics in Triple-Cation Perovskites Revealed by Infrared Vibrational Nanoscopy. ACS Energy Letters, 2020, 5, 1636-1643.	17.4	27
392	Direct evidence of weakly dispersed and strongly anharmonic optical phonons in hybrid perovskites. Communications Physics, 2020, 3, .	5.3	49
393	The synergy between the CsPbBr ₃ nanoparticle surface and the organic ligand becomes manifest in a demanding carbon–carbon coupling reaction. Chemical Communications, 2020, 56, 5026-5029.	4.1	28
394	Two-step sequential blade-coating of high quality perovskite layers for efficient solar cells and modules. Journal of Materials Chemistry A, 2020, 8, 8447-8454.	10.3	57
395	Full Efficiency Recovery in Hole-Transporting Layer-Free Perovskite Solar Cells With Free-Standing Dry-Carbon Top-Contacts. Frontiers in Chemistry, 2020, 8, 200.	3.6	8
396	Lead Sequestration from Perovskite Solar Cells Using a Metal–Organic Framework Polymer Composite. Energy Technology, 2020, 8, 2000239.	3.8	35
397	Modulating the emission of CsPbBr3 perovskite nanocrystals via thermally varying magnetic field of La0.67Sr0.33Mn0.9(Ni/Co)0.1O3. AlP Advances, 2020, 10, .	1.3	11
398	Highâ€Throughput Characterization of Perovskite Solar Cells for Rapid Combinatorial Screening. Solar Rrl, 2020, 4, 2000097.	5.8	18
399	Fabrication and TCAD validation of ambient air-processed ZnO NRs/CH3NH3PbI3/spiro-OMeTAD solar cells. Superlattices and Microstructures, 2020, 143, 106540.	3.1	12

		CITATION REPORT		
#	Article		IF	CITATIONS
400	Exciton diffusion in two-dimensional metal-halide perovskites. Nature Communications, 20	20, 11, 2035.	12.8	113
401	Synthesis, optoelectronic properties and applications of halide perovskites. Chemical Socie 2020, 49, 2869-2885.	rty Reviews,	38.1	282
402	Electrochemical Deposition of Organometallic Halide Perovskite Single-Crystal Particles wit Gradients and Their Stability, Fluorescence, and Photoelectrochemical Properties. Journal o Chemistry C, 2020, 124, 10659-10668.		3.1	10
403	Noncontact Tunneling in Methylammonium Lead Iodide (CH ₃ NH ₃ PbI ₃): Evidence of Bipolar Resistive Switcl Defect Migration. ACS Applied Electronic Materials, 2020, 2, 1395-1401.	ning through	4.3	4
404	Degradation mechanisms in mixed-cation and mixed-halide Cs _x FA _{1â^'x} Pb(Br _y I _{1â^'y}) ₃ under ambient conditions. Journal of Materials Chemistry A, 2020, 8, 9302-9312.	• perovskite films	10.3	26
405	Perovskite: Name Puzzle and Germanâ€Russian Odyssey of Discovery. Helvetica Chimica A e2000061.	cta, 2020, 103,	1.6	51
406	Semisynthetic Chlorophyll Derivatives Toward Solar Energy Applications. Solar Rrl, 2020, 4,	, 2000162.	5.8	43
407	From core-shell to yolk-shell: Keeping the intimately contacted interface for plasmonic metal@semiconductor nanorods toward enhanced near-infrared photoelectrochemical per Nano Research, 2020, 13, 1162-1170.	formance.	10.4	25
408	Machine-learning structural and electronic properties of metal halide perovskites using a hierarchical convolutional neural network. Npj Computational Materials, 2020, 6, .		8.7	93
409	Perovskite CsPbBr ₃ crystals: growth and applications. Journal of Materials Che 2020, 8, 6326-6341.	emistry C,	5.5	87
410	Moisture-tolerant and high-quality α-CsPbI ₃ films for efficient and stable perc modules. Journal of Materials Chemistry A, 2020, 8, 9597-9606.	vvskite solar	10.3	62
411	Organic Cation Alloying on Intralayer A and Interlayer A' sites in 2D Hybrid Dion–Jacc Bromide Perovskites (A')(A)Pb ₂ Br ₇ . Journal of the American 2020, 142, 8342-8351.	bson Lead Chemical Society,	13.7	64
412	Developing D–ï€â€"D hole-transport materials for perovskite solar cells: the effect of the device performance. Materials Chemistry Frontiers, 2021, 5, 876-884.	ï€-bridge on	5.9	33
413	Enamineâ€Based Crossâ€Linkable Holeâ€Transporting Materials for Perovskite Solar Cells. •	Solar Rrl, 2021, 5,	5.8	11
414	The Key Role of the Interface in the Highly Sensitive Mechanochromic Luminescence Prope Hybrid Perovskites. Angewandte Chemie, 2021, 133, 847-852.	rties of	2.0	2
415	Boosting the efficiency of commercial available carbon-based perovskite solar cells using Z TiO2 nanorod arrays as electron transport layer. Journal of Alloys and Compounds, 2021, 8		5.5	21
416	Conjugated Polymers for Photon-to-Electron and Photon-to-Fuel Conversions. ACS Applied Materials, 2021, 3, 60-92.	Polymer	4.4	43
417	Revealing Dynamic Effects of Mobile Ions in Halide Perovskite Solar Cells Using Timeâ€Reso Microspectroscopy. Small Methods, 2021, 5, e2000731.	blved	8.6	18

#	Article	IF	CITATIONS
418	Numerical development of eco-friendly Cs2TiBr6 based perovskite solar cell with all-inorganic charge transport materials via SCAPS-1D. Optik, 2021, 225, 165765.	2.9	135
419	Syntheses and applications of perovskite-based photocatalysts in light-driven organic reactions. Current Opinion in Green and Sustainable Chemistry, 2021, 27, 100390.	5.9	21
420	Allâ€Inorganic CsPbl ₃ Quantum Dot Solar Cells with Efficiency over 16% by Defect Control. Advanced Functional Materials, 2021, 31, 2005930.	14.9	101
421	Effects of guanidinium cations on structural, optoelectronic and photovoltaic properties of perovskites. Journal of Energy Chemistry, 2021, 58, 48-54.	12.9	21
422	In Situ Exploration of the Structural Transition during Morphology―and Efficiencyâ€Conserving Halide Exchange on a Single Perovskite Nanocrystal. Angewandte Chemie - International Edition, 2021, 60, 2548-2553.	13.8	9
423	Engineering of dendritic dopant-free hole transport molecules: enabling ultrahigh fill factor in perovskite solar cells with optimized dendron construction. Science China Chemistry, 2021, 64, 41-51.	8.2	55
424	Interface engineering, the trump-card for CsPbX3 (XËł, Br) perovskite solar cells development. Nano Energy, 2021, 79, 105490.	16.0	22
425	Progress in Materials Development for Flexible Perovskite Solar Cells and Future Prospects. ChemSusChem, 2021, 14, 512-538.	6.8	38
426	Pyrene-Cored Hole-Transporting Materials for Efficient and Stable Perovskite Solar Cells. Bulletin of the Chemical Society of Japan, 2021, 94, 632-640.	3.2	5
427	Hollow TiO2 spheres as mesoporous layer for better efficiency and stability of perovskite solar cells. Journal of Alloys and Compounds, 2021, 866, 158079.	5.5	9
428	Multiâ€Channel Pumped Ultrasonic Sprayâ€Coating for Highâ€Throughput and Scalable Mixed Halide Perovskite Solar Cells. Advanced Materials Interfaces, 2021, 8, 2001509.	3.7	13
429	Mixed Group 14–15 Metalates as Model Compounds for Doped Lead Halide Perovskites. Angewandte Chemie - International Edition, 2021, 60, 3906-3911.	13.8	11
430	Suppressed Lattice Disorder for Large Emission Enhancement and Structural Robustness in Hybrid Lead Iodide Perovskite Discovered by Highâ€Pressure Isotope Effect. Advanced Functional Materials, 2021, 31, 2009131.	14.9	20
431	Thinâ€Metalâ€Filmâ€Based Transparent Conductors: Material Preparation, Optical Design, and Device Applications. Advanced Optical Materials, 2021, 9, 2001298.	7.3	64
432	Thermodynamics of cesium lead halide (CsPbX3, x= I, Br, Cl) perovskites. Thermochimica Acta, 2021, 695, 178813.	2.7	26
433	Inorganic Electron Transport Materials in Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2008300.	14.9	105
434	Emerging Lightâ€Emitting Materials for Photonic Integration. Advanced Materials, 2021, 33, e2003733.	21.0	25
435	Sulfonyldibenzene-based hole-transporting materials for efficient n-i-p perovskite solar cells. Science China Chemistry, 2021, 64, 127-133.	8.2	8

#	Article	IF	CITATIONS
436	Carbon Nanotubes for Photovoltaics: From Lab to Industry. Advanced Energy Materials, 2021, 11, 2002880.	19.5	59
437	Simultaneous enhancement of luminescence and stability of lead halide perovskites by a diatomite microcavity for light-emitting diodes. Chemical Engineering Journal, 2021, 417, 128056.	12.7	17
438	Efficient and Stable Graded CsPbI3â^'xBrx Perovskite Solar Cells and Submodules by Orthogonal Processable Spray Coating. Joule, 2021, 5, 481-494.	24.0	81
439	Role of BCP layer on nonlinear properties of perovskite solar cell. Solar Energy, 2021, 213, 383-391.	6.1	9
440	Artemisinin-passivated mixed-cation perovskite films for durable flexible perovskite solar cells with over 21% efficiency. Journal of Materials Chemistry A, 2021, 9, 1574-1582.	10.3	126
441	Gemischte Gruppeâ€14â€15â€Metallate als Modellverbindungen für dotierte Bleihalogenidperowskite. Angewandte Chemie, 2021, 133, 3952-3956.	2.0	0
442	Strain Engineering of Metal–Halide Perovskites toward Efficient Photovoltaics: Advances and Perspectives. Solar Rrl, 2021, 5, 2000672.	5.8	33
443	A lead-free bismuth iodide organic–inorganic ferroelectric semiconductor. Chemical Communications, 2021, 57, 647-650.	4.1	16
444	In Situ Exploration of the Structural Transition during Morphology―and Efficiencyâ€Conserving Halide Exchange on a Single Perovskite Nanocrystal. Angewandte Chemie, 2021, 133, 2578-2583.	2.0	2
445	Phase Transitions in Low-Dimensional Layered Double Perovskites: The Role of the Organic Moieties. Journal of Physical Chemistry Letters, 2021, 12, 280-286.	4.6	23
446	Nanoarchitectonics for Coordination Asymmetry and Related Chemistry. Bulletin of the Chemical Society of Japan, 2021, 94, 839-859.	3.2	88
447	Crown Etherâ€Assisted Growth and Scaling Up of FACsPbI ₃ Films for Efficient and Stable Perovskite Solar Modules. Advanced Functional Materials, 2021, 31, 2008760.	14.9	50
448	Chiral Leadâ€Free Hybrid Perovskites for Selfâ€Powered Circularly Polarized Light Detection. Angewandte Chemie, 2021, 133, 8496-8499.	2.0	23
449	Chiral Leadâ€Free Hybrid Perovskites for Selfâ€Powered Circularly Polarized Light Detection. Angewandte Chemie - International Edition, 2021, 60, 8415-8418.	13.8	144
450	Lithium doping induced self-crystallization of CsPbBr3 nanocrystal glass with improved quantum yield and stability. Chemical Engineering Journal, 2021, 421, 127777.	12.7	46
451	Lead or no lead? Availability, toxicity, sustainability and environmental impact of lead-free perovskite solar cells. Journal of Materials Chemistry C, 2021, 9, 67-76.	5.5	171
452	The Polymorphic Nature of M 3 BiBr 6 Halides (M =Cs, Rb) and their Reversible Intercalation with Water to Isomorphous Hydrates at Room Temperature. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2021, 647, 478-484.	1.2	1
453	Review on recent progress of lead-free halide perovskites in optoelectronic applications. Nano Energy, 2021, 80, 105526.	16.0	130

#	Article	IF	CITATIONS
454	Leadâ€Free Perovskiteâ€Inspired Absorbers for Indoor Photovoltaics. Advanced Energy Materials, 2021, 11, 2002761.	19.5	95
455	Highâ€throughput computational design of halide perovskites and beyond for optoelectronics. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2021, 11, e1500.	14.6	16
456	The Key Role of the Interface in the Highly Sensitive Mechanochromic Luminescence Properties of Hybrid Perovskites. Angewandte Chemie - International Edition, 2021, 60, 834-839.	13.8	8
457	A multiaxial lead-free two-dimensional organic-inorganic perovskite ferroelectric. National Science Review, 2021, 8, nwaa232.	9.5	57
458	Low-Dimensional Hybrid Lead Iodide Perovskites Single Crystals via Bifunctional Amino Acid Cross-Linkage: Structural Diversity and Properties Controllability. ACS Applied Materials & Interfaces, 2021, 13, 3325-3335.	8.0	6
459	Designing high performance conjugated materials for photovoltaic cells with the aid of intramolecular noncovalent interactions. Chemical Communications, 2021, 57, 302-314.	4.1	65
460	Graphene dispersion as a passivation layer for the enhancement of perovskite solar cell stability. Materials Chemistry and Physics, 2021, 257, 123798.	4.0	17
461	A reduced-dimensional polar hybrid perovskite for self-powered broad-spectrum photodetection. Chemical Science, 2021, 12, 3050-3054.	7.4	20
462	Enhanced Photocurrent of All-Inorganic Two-Dimensional Perovskite Cs ₂ Pbl ₂ Cl ₂ via Pressure-Regulated Excitonic Features. Journal of the American Chemical Society, 2021, 143, 2545-2551.	13.7	79
463	Interface Chemical Modification between All-Inorganic Perovskite Nanocrystals and Porous Silica Microspheres for Composite Materials with Improved Emission. Nanomaterials, 2021, 11, 119.	4.1	10
464	Group-III-nitride and halide-perovskite semiconductor gain media for amplified spontaneous emission and lasing applications. Journal Physics D: Applied Physics, 2021, 54, 143001.	2.8	20
465	Solution-processed two-dimensional materials for next-generation photovoltaics. Chemical Society Reviews, 2021, 50, 11870-11965.	38.1	96
466	Electronic Structure and Optical Properties of Mixed Iodine/Bromine Lead Perovskites. To Mix or Not to Mix?. Advanced Optical Materials, 2021, 9, 2001832.	7.3	17
467	Enhancing the performance and stability of MAPbI3 perovskite solar cells by inserting the ITO layer before the Ag electrode. AIP Conference Proceedings, 2021, , .	0.4	1
468	Comparative study of mixed metal cation lead-free perovskites for visible light photodetection. AIP Conference Proceedings, 2021, , .	0.4	1
469	Bioinspired scaffolds that sequester lead ions in physically damaged high efficiency perovskite solar cells. Chemical Communications, 2021, 57, 994-997.	4.1	24
470	Multifunctional layered hybrid perovskites. Journal of Materials Chemistry C, 2021, 9, 11428-11443.	5.5	35
471	Role of surface termination and quantum size in α-CsPbX ₃ (X = Cl, Br, I) 2D nanostructures for solar light harvesting. Physical Chemistry Chemical Physics, 2021, 23, 3031-3040.	2.8	20

#	Article	IF	CITATIONS
472	Exploiting the Lability of Metal Halide Perovskites for Doping Semiconductor Nanocomposites. ACS Energy Letters, 2021, 6, 581-587.	17.4	12
473	Substance and shadow of formamidinium lead triiodide based solar cells. Physical Chemistry Chemical Physics, 2021, 23, 9049-9060.	2.8	7
474	Large Electrostrictive Coefficient in a Two-Dimensional Hybrid Perovskite Ferroelectric. Journal of the American Chemical Society, 2021, 143, 1664-1672.	13.7	106
475	Reliability of 3D Cs ₂ M ⁺ M ³⁺ X ₆ type absorbers for perovskite solar cells: assessing the figures of merit. Journal of Materials Chemistry A, 2021, 9, 17701-17719.	10.3	12
476	The role of sodium in stabilizing tin–lead (Sn–Pb) alloyed perovskite quantum dots. Journal of Materials Chemistry A, 2021, 9, 12087-12098.	10.3	9
477	Low-Cost, High-Performance Organic Small Molecular Hole-Transporting Materials for Perovskite Solar Cells. Chinese Journal of Organic Chemistry, 2021, 41, 1447.	1.3	5
478	Work Function of TiO ₂ (Anatase, Rutile, and Brookite) Single Crystals: Effects of the Environment. Journal of Physical Chemistry C, 2021, 125, 1902-1912.	3.1	77
479	Perovskite-Like Quantum Dots Designed for Advanced Optoelectronic Applications. Engineering Materials, 2021, , 83-108.	0.6	1
480	Keggin-type polyoxometalate 1 : 1 complexes of Pb(<scp>ii</scp>) and Bi(<scp>iii</scp>): experimental, theoretical and luminescence studies. Dalton Transactions, 2021, 50, 6913-6922.	3.3	5
481	Suppressed Mn ²⁺ doping in organometal halide perovskite nanocrystals by formation of two-dimensional (CH ₃ NH ₃) ₂ MnCl ₄ . Chemical Communications, 2021, 57, 5055-5058.	4.1	6
482	Novel scalable aerosol-assisted CVD route for perovskite solar cells. Materials Advances, 2021, 2, 1606-1612.	5.4	10
483	Two-dimensional halide perovskites: synthesis, optoelectronic properties, stability, and applications. Nanoscale, 2021, 13, 12394-12422.	5.6	38
484	The dual effect of "inorganic fullerene―{Mo ₁₃₂ } doped with SnO ₂ for efficient perovskite-based photodetectors. Materials Chemistry Frontiers, 2021, 5, 6931-6940.	5.9	5
485	The precursor-compensation strategy boosts the photoresponse performance of air-stable, self-powered Cs ₂ Snl ₆ photodetectors. Journal of Materials Chemistry C, 2021, 9, 14217-14225.	5.5	13
486	Passivation and process engineering approaches of halide perovskite films for high efficiency and stability perovskite solar cells. Energy and Environmental Science, 2021, 14, 2906-2953.	30.8	170
487	A Perspective on Perovskite Solar Cells. Energy, Environment, and Sustainability, 2021, , 55-151.	1.0	1
488	Crystal Reorientation and Amorphization Induced by Stressing Efficient and Stable P–I–N Vacuumâ€Processed MAPbl ₃ Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2021, 2, 2000065.	5.8	20
489	Photo-energy conversion efficiency of CH3NH3PbI3/C60 heterojunction perovskite solar cells from first-principles. Materials Advances, 2021, 2, 1665-1675.	5.4	2

#	Article	IF	CITATIONS
490	Metal halide perovskites as an emergent catalyst for CO ₂ photoreduction: a minireview. Reaction Chemistry and Engineering, 2021, 6, 828-838.	3.7	13
491	Challenges in tin perovskite solar cells. Physical Chemistry Chemical Physics, 2021, 23, 23413-23427.	2.8	27
492	Direct deposition of Sn-doped CsPbBr ₃ perovskite for efficient solar cell application. RSC Advances, 2021, 11, 3380-3389.	3.6	16
493	Spray Pyrolyzed TiO2 Embedded Multi-Layer Front Contact Design for High-Efficiency Perovskite Solar Cells. Nano-Micro Letters, 2021, 13, 36.	27.0	50
494	Tetra-indole core as a dual agent: a hole selective layer that passivates defects in perovskite solar cells. Journal of Materials Chemistry C, 2021, 9, 7074-7082.	5.5	8
495	Defect tolerant device geometries for lead-halide perovskites. Materials Advances, 2021, 2, 3655-3670.	5.4	17
496	Colloidal quantum dots and metal halide perovskite hybridization for solar cell stability and performance enhancement. Journal of Materials Chemistry A, 2021, 9, 15522-15541.	10.3	8
497	All-in-one: a new approach toward robust and solution-processable copper halide hybrid semiconductors by integrating covalent, coordinate and ionic bonds in their structures. Chemical Science, 2021, 12, 3805-3817.	7.4	40
498	A high-throughput study of oxynitride, oxyfluoride and nitrofluoride perovskites. Journal of Materials Chemistry A, 2021, 9, 8501-8513.	10.3	18
499	Drastic Change of Surface Morphology of Cesium–Formamidinium Perovskite Solar Cells by Antisolvent Processing. ACS Applied Energy Materials, 2021, 4, 1069-1077.	5.1	4
500	Nucleation management for the ambient fabrication of high-performance perovskite photodetectors with the eco-friendly <i>tert</i> -butanol anti-solvent. Journal of Materials Chemistry C, 2021, 9, 8650-8658.	5.5	4
501	Trimethylsulfonium lead triiodide (TMSPbI ₃) for moisture-stable perovskite solar cells. Sustainable Energy and Fuels, 2021, 5, 4327-4335.	4.9	11
502	Study of Optoelectronic and Thermoelectric Characteristics of Cesium Based Halides CsYbX ₃ (X = Br, Cl) for Clean Energy Harvesting. ECS Journal of Solid State Science and Technology, 2021, 10, 015002.	1.8	5
503	Using post-synthetic ligand modification to imprint chirality onto the electronic states of cesium lead bromide (CsPbBr ₃) perovskite nanoparticles. Nanoscale, 2021, 13, 15248-15256.	5.6	20
504	CH ₃ NH ₃ Pb _{1–<i>x</i>} Co <i>_x</i> Br _{3–2<i>x</i>} Co <i>Co<i>Co<i>Co<i>Co<i>Co<i>Co<i>Co<i< td=""><td>sub>Cl<su< td=""><td>b₂2<i>x</i></td></su<></td></i<></i></i></i></i></i></i></i>	sub>Cl <su< td=""><td>b₂2<i>x</i></td></su<>	b ₂ 2 <i>x</i>
505	Two-step MAPbl ₃ deposition by low-vacuum proximity-space-effusion for high-efficiency inverted semitransparent perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 16456-16469.	10.3	25
506	A dithieno[3,2- <i>a</i> :3′,2′- <i>j</i>][5,6,11,12]chrysene diimide based polymer as an electron transport layer for efficient inverted perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 2703-2710.	5.5	2
507	Metal Halide Perovskites for X-ray Imaging Scintillators and Detectors. ACS Energy Letters, 2021, 6, 739-768.	17.4	403

#	Article	IF	CITATIONS
508	Microscopic (Dis)order and Dynamics of Cations in Mixed FA/MA Lead Halide Perovskites. Journal of Physical Chemistry C, 2021, 125, 1742-1753.	3.1	28
509	Peptide-based novel small molecules and polymers: unexplored optoelectronic materials. Journal of Materials Chemistry C, 2021, 9, 12462-12488.	5.5	8
510	Tetrathiafulvalene-based double metal lead iodides: structures and electrical properties. Dalton Transactions, 2021, 50, 8120-8126.	3.3	1
511	Frenkel defects promote polaronic exciton dissociation in methylammonium lead iodide perovskites. Physical Chemistry Chemical Physics, 2021, 23, 6583-6590.	2.8	2
512	Simulation studies on thickness variation of perovskite absorption layer for solar cells application. AIP Conference Proceedings, 2021, , .	0.4	1
513	Water and oxygen co-induced microstructure relaxation and evolution in CH ₃ NH ₃ PbI ₃ . Physical Chemistry Chemical Physics, 2021, 23, 17242-17247.	2.8	5
514	Magnetron sputtered ZnO electron transporting layers for high performance perovskite solar cells. Dalton Transactions, 2021, 50, 6477-6487.	3.3	22
515	Crystallization of 2D Hybrid Organic–Inorganic Perovskites Templated by Conductive Substrates. Advanced Functional Materials, 2021, 31, 2009007.	14.9	14
516	Recent Progress in Growth of Single-Crystal Perovskites for Photovoltaic Applications. ACS Omega, 2021, 6, 1030-1042.	3.5	35
517	Perovskite solar cells. , 2021, , 249-281.		5
517 518	Perovskite solar cells. , 2021, , 249-281. Mechanistic studies of CsPbBr ₃ superstructure formation. Journal of Materials Chemistry C, 2021, 9, 14699-14708.	5.5	5
	Mechanistic studies of CsPbBr ₃ superstructure formation. Journal of Materials	5.5	
518	Mechanistic studies of CsPbBr ₃ superstructure formation. Journal of Materials Chemistry C, 2021, 9, 14699-14708. Highly efficient and stable broadband near-infrared-emitting lead-free metal halide double perovskites.		7
518 519	Mechanistic studies of CsPbBr ₃ superstructure formation. Journal of Materials Chemistry C, 2021, 9, 14699-14708. Highly efficient and stable broadband near-infrared-emitting lead-free metal halide double perovskites. Journal of Materials Chemistry C, 2021, 9, 13474-13483. Using steric hindrance to manipulate and stabilize metal halide perovskites for optoelectronics.	5.5	7 13
518 519 520	Mechanistic studies of CsPbBr ₃ superstructure formation. Journal of Materials Chemistry C, 2021, 9, 14699-14708. Highly efficient and stable broadband near-infrared-emitting lead-free metal halide double perovskites. Journal of Materials Chemistry C, 2021, 9, 13474-13483. Using steric hindrance to manipulate and stabilize metal halide perovskites for optoelectronics. Chemical Science, 2021, 12, 7231-7247. Hierarchical computational screening of layered lead-free metal halide perovskites for	5.5 7.4	7 13 31
518 519 520 521	Mechanistic studies of CsPbBr ₃ superstructure formation. Journal of Materials Chemistry C, 2021, 9, 14699-14708. Highly efficient and stable broadband near-infrared-emitting lead-free metal halide double perovskites. Journal of Materials Chemistry C, 2021, 9, 13474-13483. Using steric hindrance to manipulate and stabilize metal halide perovskites for optoelectronics. Chemical Science, 2021, 12, 7231-7247. Hierarchical computational screening of layered lead-free metal halide perovskites for optoelectronic applications. Journal of Materials Chemistry A, 2021, 9, 6476-6486. Biomass-derived carbon electrodes for supercapacitors and hybrid solar cells: towards sustainable	5.5 7.4 10.3	7 13 31 15
 518 519 520 521 522 	Mechanistic studies of CsPbBr ₃ superstructure formation. Journal of Materials Chemistry C, 2021, 9, 14699-14708. Highly efficient and stable broadband near-infrared-emitting lead-free metal halide double perovskites. Journal of Materials Chemistry C, 2021, 9, 13474-13483. Using steric hindrance to manipulate and stabilize metal halide perovskites for optoelectronics. Chemical Science, 2021, 12, 7231-7247. Hierarchical computational screening of layered lead-free metal halide perovskites for optoelectronic applications. Journal of Materials Chemistry A, 2021, 9, 6476-6486. Biomass-derived carbon electrodes for supercapacitors and hybrid solar cells: towards sustainable photo-supercapacitors. Sustainable Energy and Fuels, 2021, 5, 4784-4806. Modulation of perovskite crystallization processes towards highly efficient and stable perovskite solar cells with MXene quantum dot-modified SnO ₂	5.5 7.4 10.3 4.9	7 13 31 15 17

#	Article	IF	CITATIONS
526	Nanoscale light- and voltage-induced lattice strain in perovskite thin films. Nanoscale, 2021, 13, 746-752.	5.6	12
527	Ultrathin lead-free double perovskite cesium silver bismuth bromide nanosheets. Nano Research, 2021, 14, 4079-4086.	10.4	14
528	The Impact of PbI 2 :KI Alloys on the Performance of Sequentially Deposited Perovskite Solar Cells. European Journal of Inorganic Chemistry, 2021, 2021, 821-830.	2.0	5
529	Improving the stability of perovskite by covering graphene on <scp> FAPbl ₃ </scp> surface. International Journal of Energy Research, 2021, 45, 10808-10820.	4.5	7
530	Merocyanine with Hole-Transporting Ability and Efficient Defect Passivation Effect for Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 869-876.	17.4	64
531	xmlns:mml="http://www.w3.org/1998/Math/MathML"> <mml:mrow><mml:mi>LaAl</mml:mi><mml:msub><mml:r mathvariant="normal">O<mml:mn>3</mml:mn></mml:r </mml:msub></mml:mrow> : <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi>Ho</mml:mi><td>3.2</td><td>3 ml·mrows.cm</td></mml:mrow></mml:msup></mml:math 	3.2	3 ml·mrows.cm
532	single crystals revealed by optical spectra. Physical Review B, 2021, 103, Reducing Energy Disorder of Hole Transport Layer by Charge Transfer Complex for High Performance p–i–n Perovskite Solar Cells. Advanced Materials, 2021, 33, e2006753.	21.0	69
533	Synthesis and Properties of Strongly Quantum-Confined Cesium Lead Halide Perovskite Nanocrystals. Accounts of Chemical Research, 2021, 54, 1399-1408.	15.6	36
534	Plasmonâ€Enhanced Perovskite Solar Cells with Efficiency Beyond 21 %: The Asynchronous Synergistic Effect of Water and Gold Nanorods. ChemPlusChem, 2021, 86, 291-297.	2.8	29
535	Review of interface solar-driven steam generation systems: High-efficiency strategies, applications and challenges. Applied Energy, 2021, 283, 116361.	10.1	55
536	CsPbBr ₃ , MAPbBr ₃ , and FAPbBr ₃ Bromide Perovskite Single Crystals: Interband Critical Points under Dry N ₂ and Optical Degradation under Humid Air. Journal of Physical Chemistry C, 2021, 125, 4938-4945.	3.1	26
537	Vertically Aligned CsPbBr3 Nanowire Arrays with Template-Induced Crystal Phase Transition and Stability. Journal of Physical Chemistry C, 2021, 125, 4860-4868.	3.1	12
538	Near-Ultraviolet Transparent Organic Hole-Transporting Materials Containing Partially Oxygen-Bridged Triphenylamine Skeletons for Efficient Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 1484-1495.	5.1	11
539	Highâ€Efficiency Quasiâ€2D Perovskite Solar Cells Incorporating 2,2′â€Biimidazolium Cation. Solar Rrl, 2021, 5, 2000700.	5.8	9
540	Formation and Stabilization of Inorganic Halide Perovskites for Photovoltaics. Matter, 2021, 4, 528-551.	10.0	28
541	Improving Hole onductorâ€Free Fully Printable Mesoscopic Perovskite Solar Cells' Performance with Enhanced Open ircuit Voltage via the Octyltrimethylammonium Chloride Additive. Solar Rrl, 2021, 5, 2000825.	5.8	6
542	Mixed-halide perovskites solar cells through PbICl and PbCl2 precursor films by sequential chemical vapor deposition. Solar Energy, 2021, 215, 179-188.	6.1	14
543	Stability Improvement of Perovskite Solar Cells by Compositional and Interfacial Engineering. Chemistry of Materials, 2021, 33, 1540-1570.	6.7	65

ARTICLE IF CITATIONS Use of Sodium Diethyldithiocarbamate to Enhance the Openâ€Circuit Voltage of 5.8 5 544 CH₃NH₃PbI₃Perovskite Solar Cells. Solar Rrl, 2021, 5, 2000811. 545 Cesium-Containing Triple Cation Perovskite Solar Cells. Coatings, 2021, 11, 279. 2.6 Threshold Size Effects in the Patterned Crystallization of Hybrid Halide Perovskites for Random 546 3.6 6 Lasing. Advanced Photonics Research, 2021, 2, 2000097. Influence of Additives on the <i>In Situ</i> Crystallization Dynamics of Methyl Ammonium Lead Halide 547 5.1 Perovskites. ACS Applied Energy Materials, 2021, 4, 1398-1409. Grain Transformation and Degradation Mechanism of Formamidinium and Cesium Lead Iodide 548 17.4 90 Perovskite under Humidity and Light. ACS Energy Letters, 2021, 6, 934-940. Halide Segregation in Mixed-Halide Perovskites: Influence of A-Site Cations. ACS Energy Letters, 2021, 6, 549 17.4 129 799-808. Perspectivas y aplicaciones reales del grafeno después de 16 años de su descubrimiento. Revista 550 0.4 0 Colombiana De Quimica, 2021, 50, 51-85. Halogen Functionalization in the 2D Material Flatland: Strategies, Properties, and Applications. Small, 551 10.0 20 2021, 17, e2005640. Accelerating the development of new solar absorbers by photoemission characterization coupled 552 5.3 2 with density functional theory. JPhys Energy, 2021, 3, 032001. Electrical doping in halide perovskites. Nature Reviews Materials, 2021, 6, 531-549. 48.7 189 Stabilization of 3-D trigonal phase in guanidinium (C(NH2)3) lead triiodide (GAPbI3) films. Applied 554 12 6.1 Surface Science, 2021, 542, 148575. Optical Fingerprints of Polynuclear Complexes in Lead Halide Perovskite Precursor Solutions. Journal 4.6 of Physical Chemistry Letters, 2021, 12, 2299-2305. Design of a structure model set for inorganic compounds based on ping-pong balls linked with snap 556 1.7 5 buttons. Chemistry Teacher International, 2021, 3, 295-301. Systematic approach to the study of the photoluminescence of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>MAPb</mml:mi><mml:msub><mml:mj mathvariant="normal">I</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review Materials, 2021, 5 Strategies for High-Performance Large-Area Perovskite Solar Cells toward Commercialization. 558 2.2 23 Crystals, 2021, 11, 295. Mesoscopic TiO₂/Nb₂O₅ Electron Transfer Layer for Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2021, 8, 2100177. 560 Polarons in materials. Nature Reviews Materials, 2021, 6, 560-586. 273 48.7 Photo-Diodes Based on CH3NH3PbCl3 Perovskite Single Crystals by Epitaxial Growth for Ultraviolet 2.1 Photo-Detection. Frontiers in Physics, 2021, 9, .

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#	Article	IF	CITATIONS
562	The photophysics of Ruddlesden-Popper perovskites: A tale of energy, charges, and spins. Applied Physics Reviews, 2021, 8, .	11.3	34
563	Using a Porphyrin Diacid Cation to Stabilize a Square-Pyramidal BiX5 (X = Br, Cl/Br) Unit. Inorganic Chemistry, 2021, 60, 4352-4356.	4.0	3
564	Halide Perovskite Lightâ€Emitting Diode Technologies. Advanced Optical Materials, 2021, 9, 2002128.	7.3	100
565	The Complex Interplay of Lead Halide Perovskites with Their Surroundings. Advanced Optical Materials, 2021, 9, 2100133.	7.3	7
566	Wide-Bandgap Halide Perovskites for Indoor Photovoltaics. Frontiers in Chemistry, 2021, 9, 632021.	3.6	27
567	Photonic Curing of Nickel Oxide Transport Layer and Perovskite Active Layer for Flexible Perovskite Solar Cells: A Path Towards High-Throughput Manufacturing. Frontiers in Energy Research, 2021, 9, .	2.3	15
568	Simulating the thickness effect of the graphene oxide layer in CsPbBr ₃ - based solar cells. Materials Research Express, 2021, 8, 035509.	1.6	18
570	Highly crystalline methylammonium lead iodide films: Phase transition from tetragonal to cubic structure by thermal annealing. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 022801.	2.1	1
571	Inter‣ample and Intra‣ample Variability in Electronic Properties of Methylammonium Lead Iodide. Advanced Functional Materials, 2021, 31, 2101843.	14.9	4
572	Mixed Conductivity of Hybrid Halide Perovskites: Emerging Opportunities and Challenges. Frontiers in Energy Research, 2021, 9, .	2.3	26
573	Interface Engineering of 2D/3D Perovskite Heterojunction Improves Photovoltaic Efficiency and Stability. Solar Rrl, 2021, 5, 2100072.	5.8	21
574	A Review on X-ray Excited Emission Decay Dynamics in Inorganic Scintillator Materials. Photonics, 2021, 8, 71.	2.0	45
575	Toward an Enhanced Room-Temperature Photovoltaic Effect in Ferroelectric Bismuth and Iron Codoped BaTiO3. Journal of Physical Chemistry C, 2021, 125, 5315-5326.	3.1	12
576	Orientationâ€Engineered Smallâ€Molecule Semiconductors as Dopantâ€Free Hole Transporting Materials for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2011270.	14.9	41
577	Organic Tetrabutylammonium Cation Intercalation to Heal Inorganic CsPbI ₃ Perovskite. Angewandte Chemie, 2021, 133, 12459-12463.	2.0	24
578	Spray deposition of NiOx hole transport layer and perovskite photoabsorber in fabrication of photovoltaic mini-module. Journal of Power Sources, 2021, 491, 229586.	7.8	16
579	Printing strategies for scaling-up perovskite solar cells. National Science Review, 2021, 8, nwab075.	9.5	48
580	Why Hybrid Tin-Based Perovskites Simultaneously Improve the Structural Stability and Charge Carriers' Lifetime: Ab Initio Quantum Dynamics. ACS Applied Materials & Interfaces, 2021, 13, 16567-16575	8.0	10

#	Article	IF	CITATIONS
581	Low-Temperature Induced Enhancement of Photoelectric Performance in Semiconducting Nanomaterials. Nanomaterials, 2021, 11, 1131.	4.1	10
582	Innovation of Materials, Devices, and Functionalized Interfaces in Organic Spintronics. Advanced Functional Materials, 2021, 31, 2100550.	14.9	47
583	Localized surface plasmon resonance of copper nanoparticles improves the performance of quasi-two-dimensional perovskite light-emitting diodes. Dyes and Pigments, 2021, 188, 109204.	3.7	18
584	Layered Arrangement of 1D Wavy Chains in the Leadâ€Free Hybrid Perovskite (PyrCO ₂ H) ₂ Bil ₅ : Structural Investigations and Properties. European Journal of Inorganic Chemistry, 2021, 2021, 1452-1458.	2.0	5
585	Azahomofullerenes as New n-Type Acceptor Materials for Efficient and Stable Inverted Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 20296-20304.	8.0	13
586	DFT Simulations as Valuable Tool to Support NMR Characterization of Halide Perovskites: the Case of Pure and Mixed Halide Perovskites. Helvetica Chimica Acta, 2021, 104, e2000231.	1.6	8
587	Ionic Liquid-Assisted MAPbI ₃ Nanoparticle-Seeded Growth for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 21194-21206.	8.0	47
588	Transition metal carbides (MXenes) for efficient NiO-based inverted perovskite solar cells. Nano Energy, 2021, 82, 105771.	16.0	74
589	Review on persistent challenges of perovskite solar cells' stability. Solar Energy, 2021, 218, 469-491.	6.1	80
590	The effective regulation of nanotwinning on the multichannel thermal transport in hybrid organic–inorganic halide perovskite. Nano Energy, 2021, 82, 105747.	16.0	13
591	Organic Tetrabutylammonium Cation Intercalation to Heal Inorganic CsPbl ₃ Perovskite. Angewandte Chemie - International Edition, 2021, 60, 12351-12355.	13.8	94
592	Dynamics & Spectroscopy with Neutrons—Recent Developments & Emerging Opportunities. Polymers, 2021, 13, 1440.	4.5	8
593	Perspective on the physics of two-dimensional perovskites in high magnetic field. Applied Physics Letters, 2021, 118, .	3.3	18
594	On the multiplying factor for the estimation of the average grain size in thin films. Scripta Materialia, 2021, 196, 113748.	5.2	4
595	Photo-stable perovskite solar cells with reduced interfacial recombination losses using a CeOx interlayer. Science China Materials, 2021, 64, 1858-1867.	6.3	13
596	Economic Convenience of Hybrid Thermoelectric-Photovoltaic Solar Harvesters. ACS Applied Energy Materials, 2021, 4, 4029-4037.	5.1	12
597	Improving Data and Prediction Quality of High-Throughput Perovskite Synthesis with Model Fusion. Journal of Chemical Information and Modeling, 2021, 61, 1593-1602.	5.4	10
598	Passivation of Bulk and Interface Defects in Sputtered-NiO _{<i>x</i>} -Based Planar Perovskite Solar Cells: A Facile Interfacial Engineering Strategy with Alkali Metal Halide Salts. ACS Applied Energy Materials, 2021, 4, 4530-4540.	5.1	25

#	Article	IF	CITATIONS
599	Efficient Optical Orientation and Slow Spin Relaxation in Lead-Free CsSnBr ₃ Perovskite Nanocrystals. ACS Energy Letters, 2021, 6, 1670-1676.	17.4	23
600	Material exploration via designing spatial arrangement of octahedral units: a case study of lead halide perovskites. Frontiers of Optoelectronics, 2021, 14, 252-259.	3.7	66
601	Spacer Engineering Using Aromatic Formamidinium in 2D/3D Hybrid Perovskites for Highly Efficient Solar Cells. ACS Nano, 2021, 15, 7811-7820.	14.6	99
602	Technical Challenges and Perspectives for the Commercialization of Solutionâ€Processable Solar Cells. Advanced Materials Technologies, 2021, 6, .	5.8	60
603	Perovskite random lasers: a tunable coherent light source for emerging applications. Nanotechnology, 2021, 32, 282001.	2.6	26
604	Lead-halide Cs4PbBr6 single crystals for high-sensitivity radiation detection. NPG Asia Materials, 2021, 13, .	7.9	43
605	The Fascinating Properties of Tin-Alloyed Halide Perovskites. ACS Energy Letters, 2021, 6, 1803-1810.	17.4	47
606	Position Effects of Metal Nanoparticles on the Performance of Perovskite Light-Emitting Diodes. Nanomaterials, 2021, 11, 993.	4.1	3
607	Boosting the Performance of One-Step Solution-Processed Perovskite Solar Cells Using a Natural Monoterpene Alcohol as a Green Solvent Additive. ACS Applied Electronic Materials, 2021, 3, 1813-1825.	4.3	22
608	Sensitivity of Nitrogen K-Edge X-ray Absorption to Halide Substitution and Thermal Fluctuations in Methylammonium Lead-Halide Perovskites. Journal of Physical Chemistry C, 2021, 125, 8360-8368.	3.1	7
609	Organic Spacers in 2D Perovskites: General Trends and Structureâ€Property Relationships from Computational Studies. Helvetica Chimica Acta, 2021, 104, e2000232.	1.6	6
610	Toward Real Setting Applications of Organic and Perovskite Solar Cells: A Comparative Review. Energy Technology, 2021, 9, 2000901.	3.8	33
611	Chemical Insights into Interfacial Effects in Inorganic Nanomaterials. Advanced Materials, 2021, 33, e2006159.	21.0	22
612	Efficient and stable inverted perovskite solar cells incorporating 4-Fluorobenzylammonium iodide. Organic Electronics, 2021, 92, 106124.	2.6	10
613	Dual–Functionalâ€Polymer Dopant–Passivant Boosted Electron Transport Layer for Highâ€Performance Inverted Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100236.	5.8	5
614	Benzylammoniumâ€Mediated Formamidinium Lead Iodide Perovskite Phase Stabilization for Photovoltaics. Advanced Functional Materials, 2021, 31, 2101163.	14.9	28
615	Fluorinated Aromatic Formamidinium Spacers Boost Efficiency of Layered Ruddlesden–Popper Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 2072-2080.	17.4	66
616	Defect Passivation of CsPbBr ₃ with AgBr for Highâ€Performance Allâ€Inorganic Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2021, 2, 2000099.	5.8	18

#	Article	IF	Citations
617	In Situ Raman Microdroplet Spectroelectrochemical Investigation of CuSCN Electrodeposited on Different Substrates. Nanomaterials, 2021, 11, 1256.	4.1	3
618	Dielectric Hole Collector toward Boosting Charge Transfer of CsPbBr ₃ Hybrid Nanogenerator by Coupling Triboelectric and Photovoltaic Effects. Advanced Functional Materials, 2021, 31, 2101348.	14.9	30
619	A Review of Integrated Systems Based on Perovskite Solar Cells and Energy Storage Units: Fundamental, Progresses, Challenges, and Perspectives. Advanced Science, 2021, 8, 2100552.	11.2	19
620	Efficient (>20 %) and Stable Allâ€Inorganic Cesium Lead Triiodide Solar Cell Enabled by Thiocyanate Molten Salts. Angewandte Chemie - International Edition, 2021, 60, 13436-13443.	13.8	166
621	Achieving Resistance against Moisture and Oxygen for Perovskite Solar Cells with High Efficiency and Stability. Chemistry of Materials, 2021, 33, 4269-4303.	6.7	51
622	Nanoscale Silver Iodobismuthate Photosensitizer and Its Hybridization with Molecular Dye for Mesoporous TiO ₂ Film-based Solid-state Sensitized Solar Cells. Chemistry Letters, 2021, 50, 953-955.	1.3	1
623	Stability and optoelectronic property of lead-free halide double perovskite Cs ₂ B′Bil ₆ (B′ = Li, Na and K)*. Chinese Physics B, 2021, 30, 108102.	1.4	11
624	3D-to-2D Transition of Anion Vacancy Mobility in CsPbBr ₃ under Hydrostatic Pressure. Journal of Physical Chemistry Letters, 2021, 12, 5169-5177.	4.6	7
625	Strain-relaxed tetragonal MAPbI3 results in efficient mesoporous solar cells. Nano Energy, 2021, 83, 105788.	16.0	29
626	Efficient (>20 %) and Stable Allâ€Inorganic Cesium Lead Triiodide Solar Cell Enabled by Thiocyanate Molten Salts. Angewandte Chemie, 2021, 133, 13548-13555.	2.0	15
627	Ion exchange for halide perovskite: From nanocrystal to bulk materials. Nano Select, 2021, 2, 2040-2060.	3.7	21
628	Optical behaviour of γ-black CsPbl ₃ phases formed by quenching from 80 °C and 325 °C. JPhys Materials, 2021, 4, 034011.	4.2	6
629	Regulating the Film Growth and Reducing the Defects for Efficient CsPbIBr ₂ Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 24654-24661.	8.0	21
630	Formation of CsPbI ₃ γâ€Phase at 80 °C by Europiumâ€Assisted Snowplow Effect. Advanced Energy and Sustainability Research, 2021, 2, 2100091.	5.8	8
631	Electron Beam Irradiation of Lead Halide Perovskite Solar Cells: Dedoping of Organic Hole Transport Materials despite Hardness of the Perovskite Layer. ACS Applied Materials & Interfaces, 2021, 13, 24824-24832.	8.0	8
632	Probing structure–property relationship in chemical vapor deposited hybrid perovskites by pressure and temperature. Journal of Materials Research, 2021, 36, 1805-1812.	2.6	3
633	Perovskit Güneş Pilleri ve Kararsızlık Problemleri Üzerine Bir Araştırma. Düzce Üniversitesi Bilim V Teknoloji Dergisi, 0, , 158-171.	Ve 0.7	0
634	Scalable Production of Ambient Stable Hybrid Bismuthâ€Based Materials: AACVD of Phenethylammonium Bismuth Iodide Films**. Chemistry - A European Journal, 2021, 27, 9406-9413.	3.3	4

#	Article	IF	CITATIONS
635	Water Stable Haloplumbate Modulation for Efficient and Stable Hybrid Perovskite Photovoltaics. Advanced Energy Materials, 2021, 11, 2101082.	19.5	21
636	The Role of Dimensionality on the Optoelectronic Properties of Oxide and Halide Perovskites, and their Halide Derivatives. Advanced Energy Materials, 2022, 12, 2100499.	19.5	66
637	Recent Advances in Ligand Design and Engineering in Lead Halide Perovskite Nanocrystals. Advanced Science, 2021, 8, 2100214.	11.2	109
638	A brief review of hole transporting materials commonly used in perovskite solar cells. Rare Metals, 2021, 40, 2712-2729.	7.1	138
639	Merging Biology and Photovoltaics: How Nature Helps Sun atching. Advanced Energy Materials, 2021, 11, 2100520.	19.5	15
640	One-Step Spray-Coated All-Inorganic CsPbI ₂ Br Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 5466-5474.	5.1	16
641	Assessing the Impact of Defects on Leadâ€Free Perovskiteâ€Inspired Photovoltaics via Photoinduced Current Transient Spectroscopy. Advanced Energy Materials, 2021, 11, 2003968.	19.5	26
642	Lead–halide perovskites for next-generation self-powered photodetectors: a comprehensive review. Photonics Research, 2021, 9, 968.	7.0	52
643	Low-Temperature Graphene-Based Paste for Large-Area Carbon Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 22368-22380.	8.0	39
644	Synthesis, Applications, and Prospects of Quantumâ€Dotâ€inâ€Perovskite Solids. Advanced Energy Materials, 2022, 12, 2100774.	19.5	39
645	Band-Gap Engineering of Lead-Free Iron-Based Halide Double-Perovskite Single Crystals and Nanocrystals by an Alloying or Doping Strategy. Journal of Physical Chemistry C, 2021, 125, 11743-11749.	3.1	24
646	Antimony chalcogenide-based thin film solar cells: Device engineering routes to boost the performance. Journal of Applied Physics, 2021, 129, .	2.5	10
647	The benefits of ionic liquids for the fabrication of efficient and stable perovskite photovoltaics. Chemical Engineering Journal, 2021, 411, 128461.	12.7	70
648	Opportunities and challenges of inorganic perovskites in high-performance photodetectors. Journal Physics D: Applied Physics, 2021, 54, 293002.	2.8	35
649	An Overview for Zeroâ€Dimensional Broadband Emissive Metalâ€Halide Single Crystals. Advanced Optical Materials, 2021, 9, 2100544.	7.3	114
650	Interfacial toughening with self-assembled monolayers enhances perovskite solar cell reliability. Science, 2021, 372, 618-622.	12.6	313
651	Degradation mechanism of hybrid tin-based perovskite solar cells and the critical role of tin (IV) iodide. Nature Communications, 2021, 12, 2853.	12.8	236
652	Multiple-Noncovalent-Interaction-Stabilized Layered Dion–Jacobson Perovskite for Efficient Solar Cells. Nano Letters, 2021, 21, 5788-5797.	9.1	59

		CITATION REPORT		
#	Article		IF	Citations
653	Chemical Vapor Deposited Mixed Metal Halide Perovskite Thin Films. Materials, 2021,	14, 3526.	2.9	3
654	3D Heterogeneous Device Arrays for Multiplexed Sensing Platforms Using Transfer of Advanced Materials, 2021, 33, e2101093.	Perovskites.	21.0	33
656	New Low-Dimensional Perovskites Based on Lead Bromide. Russian Journal of Coordina Chemistry/Koordinatsionnaya Khimiya, 2021, 47, 365-375.	ation	1.0	3
657	Low-cost Cu-based inorganic hole transporting materials in perovskite solar cells: Rece and state-of-art developments. Materials Today Chemistry, 2021, 20, 100427.	nt progress	3.5	12
658	2D Lead Iodide Perovskite with Mercaptan-Containing Amine and Its Exceptional Wate Inorganic Chemistry, 2021, 60, 9132-9140.	r Stability.	4.0	11
659	Openâ€Circuit Voltage Loss in Lead Chalcogenide Quantum Dot Solar Cells. Advanced e2008115.	Materials, 2021, 33,	21.0	44
660	Evaluating Cu ₂ SnS ₃ Nanoparticle Layers as Hole-Transportir Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 5560-5573.	ng Materials in	5.1	14
661	Vacuum-Deposited Microcavity Perovskite Photovoltaic Devices. ACS Photonics, 2021	, 8, 2067-2073.	6.6	6
662	Efficient carrier transport via dual-function interfacial engineering using cesium iodide high-performance perovskite solar cells based on NiOx hole transporting materials. Nat 2021, 14, 3864-3872.	for no Research,	10.4	14
663	Preparation of nanoscale inorganic CsPblxBr3-x perovskite photosensitizers on the sur mesoporous TiO2 film for solid-state sensitized solar cells. Applied Surface Science, 20	face of 21, 551, 149387.	6.1	4
664	Quantifying polaronic effects on the scattering and mobility of charge carriers in lead h perovskites. Physical Review B, 2021, 103, .	nalide	3.2	12
665	Preparation and Characterization of Thin-Film Solar Cells with Ag/C60/MAPbI3/CZTSe/Multilayered Structures. Molecules, 2021, 26, 3516.	Mo/FTO	3.8	2
666	Quantization effects in semiconductor nanostructures and singlet fission in molecular chromophores for photovoltaics and solar fuels. Chemical Physics Reviews, 2021, 2, .		5.7	7
667	Structure–Property Relationships in Photoluminescent Bismuth Halide Organic Hybr Inorganic Chemistry, 2021, 60, 9727-9744.	id Materials.	4.0	12
668	Charge Recycling Mechanism Through a Triplet Charge-Transfer State in Ternary-Blend Cells Containing a Nonfullerene Acceptor. ACS Energy Letters, 2021, 6, 2610-2618.	Organic Solar	17.4	9
669	Lead-free halide perovskites, beyond solar cells and LEDs. JPhys Energy, 2021, 3, 03202	14.	5.3	11
670	B-Site Columnar-Ordered Halide Double Perovskites: Theoretical Design and Experimer Journal of the American Chemical Society, 2021, 143, 10275-10281.	ital Verification.	13.7	43
671	Fabrication of Lead Halide Perovskite Thin Films by Laser Alternate Deposition: Variatio Properties with Layered Structure. , 2021, , .	n of Physical		0

#	Article	IF	CITATIONS
672	Layered Hybrid Formamidinium Lead Iodide Perovskites: Challenges and Opportunities. Accounts of Chemical Research, 2021, 54, 2729-2740.	15.6	48
673	Dielectric, magnetic and optical study of La- doped BFO-BST ceramic for multifunctional applications. Materials Science in Semiconductor Processing, 2021, 128, 105720.	4.0	12
674	Are Shockley-Read-Hall and ABC models valid for lead halide perovskites?. Nature Communications, 2021, 12, 3329.	12.8	41
675	Nickel Oxide for Perovskite Photovoltaic Cells. Advanced Photonics Research, 2021, 2, 2000178.	3.6	25
676	Toward Atomic-Resolution Quantum Measurements with Coherently Shaped Free Electrons. Physical Review Letters, 2021, 126, 233403.	7.8	38
677	Flexible perovskite solar cells with simultaneously improved efficiency, operational stability, and mechanical reliability. Joule, 2021, 5, 1587-1601.	24.0	120
678	Material Requirements for CdSe Wide Bandgap Solar Cells. , 2021, , .		3
679	Optoelectronic Properties of Chalcogenide Perovskites by Many-Body Perturbation Theory. Journal of Physical Chemistry Letters, 2021, 12, 5301-5307.	4.6	25
680	Current Development toward Commercialization of Metalâ€Halide Perovskite Photovoltaics. Advanced Optical Materials, 2021, 9, 2100390.	7.3	15
681	Advances in metal halide perovskite lasers: synthetic strategies, morphology control, and lasing emission. Advanced Photonics, 2021, 3, .	11.8	47
682	Device Optimization of PIN Structured Perovskite Solar Cells: Impact of Design Variants. ACS Applied Electronic Materials, 2021, 3, 3509-3520.	4.3	15
683	Optical design of TCO-free interconnecting layer for all-perovskite tandem solar cells. Applied Physics Letters, 2021, 119, 021102.	3.3	6
684	Highâ€Resolution Inâ€Situ Synchrotron Xâ€Ray Studies of Inorganic Perovskite CsPbBr ₃ : New Symmetry Assignments and Structural Phase Transitions. Advanced Science, 2021, 8, e2003046.	11.2	9
685	Tandem DSSC fabrication by controlled infiltration of organic dyes in mesoporous electrode using electric-field assisted spray technique. Solar Energy, 2021, 223, 318-325.	6.1	6
686	How the Copper Dopant Alters the Geometric and Photoelectronic Properties of the Leadâ€Free Cs 2 AgSbCl 6 Double Perovskite. Advanced Theory and Simulations, 2021, 4, 2100142.	2.8	6
687	Perovskitoidâ€Templated Formation of a 1D@3D Perovskite Structure toward Highly Efficient and Stable Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2101018.	19.5	85
688	Using automated serendipity to discover how trace water promotes and inhibits lead halide perovskite crystal formation. Applied Physics Letters, 2021, 119, .	3.3	12
689	Dopantâ€Free Polymer HTMâ€Based CsPbI ₂ Br Solar Cells with Efficiency Over 17% in Sunlight and 34% in Indoor Light. Advanced Functional Materials, 2021, 31, 2103614.	14.9	60

#	Article	IF	CITATIONS
690	The Vibrational and Thermodynamic Properties of CsPbl ₃ Polymorphs: An Improved Description Based on the SCAN meta-GGA Functional. Journal of Physical Chemistry Letters, 2021, 12, 6613-6621.	4.6	24
691	Multiple Electronic Transition-Induced Anomalous Broadband Absorption in a New Class of [Ni-Tpy ₂]-Based Lead-Free Perovskite Single Crystals. Journal of Physical Chemistry C, 2021, 125, 15579-15589.	3.1	5
692	Transformation and degradation of metal halide perovskites induced by energetic electrons and their practical implications. Nano Futures, 2021, 5, 032001.	2.2	4
693	Elucidation of the Crystal Growth Characteristics of SnO2 Nanoaggregates Formed by Sequential Low-Temperature Sol-Gel Reaction and Freeze Drying. Nanomaterials, 2021, 11, 1738.	4.1	4
694	Modification of compact TiO2 layer by TiCl4-TiCl3 mixture treatment and construction of high-efficiency carbon-based CsPbI2Br perovskite solar cells. Journal of Energy Chemistry, 2021, 63, 442-451.	12.9	17
695	Controlling the Defect Density of Perovskite Films by MXene/SnO ₂ Hybrid Electron Transport Layers for Efficient and Stable Photovoltaics. Journal of Physical Chemistry C, 2021, 125, 15210-15222.	3.1	34
697	Ferroelastic Hybrid Bismuth Bromides with Dual Dielectric Switches. Chemistry of Materials, 2021, 33, 5790-5799.	6.7	47
698	Cryogenic Electron Microscopy for Energy Materials. Accounts of Chemical Research, 2021, 54, 3505-3517.	15.6	19
699	Defect Passivation of Perovskite Films for Highly Efficient and Stable Solar Cells. Solar Rrl, 2021, 5, 2100295.	5.8	58
700	Concerted Ion Migration and Diffusionâ€Induced Degradation in Leadâ€Free Ag ₃ Bil ₆ Rudorffite Solar Cells under Ambient Conditions. Solar Rrl, 2021, 5, 2100077.	5.8	28
701	Zwitterionic Ionic Liquid Confer Defect Tolerance, High Conductivity, and Hydrophobicity toward Efficient Perovskite Solar Cells Exceeding 22% Efficiency. Solar Rrl, 2021, 5, 2100352.	5.8	35
702	Employing Equivalent Circuit Models to Study the Performance of Seleniumâ€Based Solar Cells with Polymers as Hole Transport Layers. Small, 2021, 17, e2101226.	10.0	7
703	Stable Cesium-Rich Formamidinium/Cesium Pure-Iodide Perovskites for Efficient Photovoltaics. ACS Energy Letters, 2021, 6, 2735-2741.	17.4	31
704	Layered metal halide perovskite solar cells: A review from structureâ€properties perspective towards maximization of their performance and stability. EcoMat, 2021, 3, e12124.	11.9	27
705	Effect of Antisolvent Application Rate on Film Formation and Photovoltaic Performance of Methylammoniumâ€Free Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2021, 2, 2100061.	5.8	13
706	Performance optimization of lead free-MASnI3 based solar cell with 27% efficiency by numerical simulation. Optical Materials, 2021, 117, 111193.	3.6	77
707	From Groundwork to Efficient Solar Cells: On the Importance of the Substrate Material in Coâ€Evaporated Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2104482.	14.9	51
708	Highâ€Performance Stable Perovskite Solar Cell via Defect Passivation With Constructing Tunable Graphitic Carbon Nitride. Solar Rrl, 2021, 5, 2100257.	5.8	9

#	Article	IF	CITATIONS
709	Bismuth-Based Halide Double Perovskite Cs ₂ LiBiCl ₆ : Crystal Structure, Luminescence, and Stability. Chemistry of Materials, 2021, 33, 5905-5916.	6.7	39
711	A Review on Emerging Barrier Materials and Encapsulation Strategies for Flexible Perovskite and Organic Photovoltaics. Advanced Energy Materials, 2021, 11, 2101383.	19.5	57
712	Stability of Perovskite Solar Cells: Degradation Mechanisms and Remedies. Frontiers in Electronics, 2021, 2, .	3.2	75
713	Strong Electron Acceptor of a Fluorine-Containing Group Leads to High Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 41149-41158.	8.0	24
714	Giant Bulk Photostriction and Accurate Photomechanical Actuation in Hybrid Perovskites. Advanced Optical Materials, 2021, 9, 2100837.	7.3	12
715	Rapid synthesis of highly stable all-inorganic perovskite nanocrystals exhibiting strong blue luminescence. Journal of Alloys and Compounds, 2021, 872, 159612.	5.5	8
716	Halogenâ€Bonded Holeâ€Transport Material Suppresses Charge Recombination and Enhances Stability of Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2101553.	19.5	44
717	Understanding the Semi-Switchable Thermochromic Behavior of Mixed Halide Hybrid Perovskite Nanorods. Journal of Physical Chemistry C, 2021, 125, 18058-18070.	3.1	21
718	Efficient Investigation of Highâ€Performance Perovskite Solar Cells Based on Shadowâ€Mask Kits with Uniform Patterning and Antishadowing Capabilities. Advanced Materials Technologies, 2021, 6, 2001207.	5.8	5
719	Recent progress of flexible perovskite solar cells. Nano Today, 2021, 39, 101155.	11.9	61
720	Additive Effects of Guanidinium Iodide on CH ₃ NH ₃ PbI ₃ Perovskite Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2100396.	1.8	22
721	Twoâ€Dimensional Antimonyâ€Based Perovskiteâ€Inspired Materials for Highâ€Performance Selfâ€Powered Photodetectors. Advanced Functional Materials, 2021, 31, 2106295.	14.9	32
722	Machine Learning Roadmap for Perovskite Photovoltaics. Journal of Physical Chemistry Letters, 2021, 12, 7866-7877.	4.6	51
723	Highly Stable Inorganic Lead Halide Perovskite toward Efficient Photovoltaics. Accounts of Chemical Research, 2021, 54, 3452-3461.	15.6	37
724	Metal Oxide-Induced Instability and Its Mitigation in Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 8495-8506.	4.6	22
725	Formation of 2D-Layered (CH3NH3)3Sb2I9 Lead-Free Perovskite Phase from CH3NH3I and SbSI: Photodetection Activity in Carbon Based Lateral Devices. Journal of Electronic Materials, 2021, 50, 5989-5994.	2.2	6
726	Grain size control of perovskite films based on β-alanine self-assembled monolayers surface treatment. Thin Solid Films, 2021, 732, 138770.	1.8	2
727	Recent Advances in Flexible Perovskite Lightâ€Emitting Diodes. Advanced Materials Interfaces, 2021, 8, 2100441.	3.7	28

#	ARTICLE	IF	Citations
728	Sequentially Slotâ€Dieâ€Coated Perovskite for Efficient and Scalable Solar Cells. Advanced Materials Interfaces, 2021, 8, 2100743.	3.7	21
729	MA Cation-Induced Diffusional Growth of Low-Bandgap FA-Cs Perovskites Driven by Natural Gradient Annealing. Research, 2021, 2021, 9765106.	5.7	8
730	Determining Out-of-Plane Hole Mobility in CuSCN via the Time-of-Flight Technique To Elucidate Its Function in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 38499-38507.	8.0	4
731	Surface modulation of halide perovskite films for efficient and stable solar cells. Chinese Physics B, 2022, 31, 037303.	1.4	3
732	High-pressure structural and optical property evolution of a hybrid indium halide perovskite. Journal of Solid State Chemistry, 2021, 300, 122262.	2.9	3
733	Rational Design of Semiconductor Heterojunctions for Photocatalysis. Chemistry - A European Journal, 2021, 27, 13306-13317.	3.3	44
734	Scalable, Template Driven Formation of Highly Crystalline Leadâ€Tin Halide Perovskite Films. Advanced Functional Materials, 2021, 31, 2105734.	14.9	22
735	Efficient Computation of Structural and Electronic Properties of Halide Perovskites Using Density Functional Tight Binding: GFN1-xTB Method. Journal of Chemical Information and Modeling, 2021, 61, 4415-4424.	5.4	16
736	Progress of Pbâ€ s n Mixed Perovskites for Photovoltaics: AÂReview. Energy and Environmental Materials, 2022, 5, 370-400.	12.8	20
737	Mechanics-coupled stability of metal-halide perovskites. Matter, 2021, 4, 2765-2809.	10.0	43
738	Interface passivation engineering for hybrid perovskite solar cells. Materials Reports Energy, 2021, 1, 100060.	3.2	19
739	Tuning of the Interconnecting Layer for Monolithic Perovskite/Organic Tandem Solar Cells with Record Efficiency Exceeding 21%. Nano Letters, 2021, 21, 7845-7854.	9.1	40
740	Controlled Growth of Porous InBr3: PbBr2 Film for Preparation of CsPbBr3 in Carbon-Based Planar Perovskite Solar Cells. Nanomaterials, 2021, 11, 2408.	4.1	1
741	Triaxial Perovskite Composite Fibers Spinning the Way to Flexible Solar Cells. Advanced Engineering Materials, 2022, 24, 2100773.	3.5	6
742	Integration of buildings with third-generation photovoltaic solar cells: a review. Clean Energy, 2021, 5, 505-526.	3.2	8
743	A hybrid multifunctional perovskite with dielectric phase transition and broadband red-light emission. Journal of Molecular Structure, 2021, 1239, 130468.	3.6	4
744	Suppression of ion migration in perovskite materials by pulse-voltage method*. Chinese Physics B, 2021, 30, 118104.	1.4	3
745	Dehydration-Reaction-Based Low-Temperature Synthesis of Amorphous SnO <i>_x</i> for High-Performance Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 47603-47609.	8.0	3

#	Article	IF	CITATIONS
746	Integrated Quasiâ€2D Perovskite/Organic Solar Cells with Efficiency over 19% Promoted by Interface Passivation. Advanced Functional Materials, 2021, 31, 2107129.	14.9	20
747	Advances in Flexible Memristors with Hybrid Perovskites. Journal of Physical Chemistry Letters, 2021, 12, 8798-8825.	4.6	36
748	Efficient Perovskite Nanocrystalâ€based Optoelectronic Devices. Physica Status Solidi (A) Applications and Materials Science, 0, , 2100366.	1.8	4
749	Effects of the doping density of charge-transporting layers on regular and inverted perovskite solar cells: numerical simulations. Advanced Composites and Hybrid Materials, 2021, 4, 1146-1154.	21.1	27
750	High-Curie Temperature Multilayered Hybrid Double Perovskite Photoferroelectrics Induced by Aromatic Cation Alloying. Journal of the American Chemical Society, 2021, 143, 15900-15906.	13.7	45
751	Energy landscape in silver-bismuth-iodide rudorffites: Combining scanning tunneling spectroscopy and Kelvin probe force microscopy. Physical Review Materials, 2021, 5, .	2.4	6
752	Hybridization of SnO ₂ and an In-Situ-Oxidized Ti ₃ C ₂ T _{<i>x</i>/sub> MXene Electron Transport Bilayer for High-Performance Planar Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2021, 9, 13672-13680.}	6.7	13
753	Robust, High-Performing Maize–Perovskite-Based Solar Cells with Improved Stability. ACS Applied Energy Materials, 2021, 4, 11194-11203.	5.1	11
754	Lost horses on the frontier: K2BiCl5 and K3Bi2Br9. Journal of Solid State Chemistry, 2021, 304, 122621.	2.9	1
755	Efficient and Stable 2D@3D/2D Perovskite Solar Cells Based on Dual Optimization of Grain Boundary and Interface. ACS Energy Letters, 2021, 6, 3614-3623.	17.4	113
756	Organic Matrix Assisted Lowâ€ŧemperature Crystallization of Black Phase Inorganic Perovskites. Angewandte Chemie, 2022, 134, .	2.0	3
757	Atomic-scale understanding on the physics and control of intrinsic point defects in lead halide perovskites. Applied Physics Reviews, 2021, 8, .	11.3	36
758	Polymerization stabilized black-phase FAPbI3 perovskite solar cells retain 100% of initial efficiency over 100Âdays. Chemical Engineering Journal, 2021, 419, 129482.	12.7	21
759	Sulfonated Dopantâ€Free Holeâ€Transport Material Promotes Interfacial Charge Transfer Dynamics for Highly Stable Perovskite Solar Cells. Advanced Sustainable Systems, 2021, 5, 2100244.	5.3	27
760	A-site tailoring in the vacancy-ordered double perovskite semiconductor Cs2SnI6 for photovoltaic application. Solar Energy Materials and Solar Cells, 2021, 230, 111180.	6.2	28
761	MOFs based on the application and challenges of perovskite solar cells. IScience, 2021, 24, 103069.	4.1	27
762	Can We Find the Perfect A-Cations for Halide Perovskites?. ACS Energy Letters, 2021, 6, 3386-3389.	17.4	26
763	Boosting Long-Term Stability of Pure Formamidinium Perovskite Solar Cells by Ambient Air Additive Assisted Fabrication. ACS Energy Letters, 2021, 6, 3511-3521.	17.4	56

#	Article	IF	CITATIONS
764	Recent progress on all-inorganic metal halide perovskite solar cells. Materials Today Nano, 2021, 16, 100143.	4.6	13
765	Two-Dimensional Crystalline Gridding Networks of Hybrid Halide Perovskite for Random Lasing. Crystals, 2021, 11, 1114.	2.2	4
766	Hydrolysis-Regulated Chemical Bath Deposition of Tin-Oxide-Based Electron Transport Layers for Efficient Perovskite Solar Cells with a Reduced Potential Loss. Chemistry of Materials, 2021, 33, 8194-8204.	6.7	22
767	Organic Matrix Assisted Lowâ€temperature Crystallization of Black Phase Inorganic Perovskites. Angewandte Chemie - International Edition, 2022, 61, .	13.8	32
768	Understanding the surface passivation effects of Lewis base in perovskite solar cells. Applied Surface Science, 2021, 563, 150267.	6.1	25
769	Advances in structural modification of perovskite semiconductors for visible light assisted photocatalytic CO2 reduction to renewable solar fuels: A review. Journal of Environmental Chemical Engineering, 2021, 9, 106264.	6.7	56
770	Combinatorial High-throughput Exploration of Functional Materials. Materia Japan, 2021, 60, 620-627.	0.1	0
771	Lead-free, mixed tin-copper perovskites with improved stability and optical properties. Journal of Alloys and Compounds, 2021, 879, 160325.	5.5	20
772	Enhancing the performance of CsPbIBr2 solar cells through zinc halides doping. Synthetic Metals, 2021, 281, 116918.	3.9	5
773	Nb–TiO2/P3HT hybrid solar cell: Oxide production and photovoltaic electrochemical characterization. Optical Materials, 2021, 121, 111513.	3.6	1
774	Suppressed phase and structural evolution of CH3NH3PbBr3 microwires to (CH3)2NH2PbBr3 by addition of hydrazine bromide. Applied Surface Science, 2021, 566, 150691.	6.1	6
775	Pristine inorganic nickel oxide as desirable hole transporting material for efficient quasi two-dimensional perovskite solar cells. Journal of Power Sources, 2021, 512, 230452.	7.8	9
776	Materials, methods and strategies for encapsulation of perovskite solar cells: From past to present. Renewable and Sustainable Energy Reviews, 2021, 151, 111608.	16.4	45
777	Impact of ultralow yttrium concentration on formation, morphology and optical properties of DC magnetron co-sputtered yttrium-doped ZnO films. Applied Surface Science Advances, 2021, 6, 100127.	6.8	1
778	Low-temperature treated anatase TiO2 nanophotonic-structured contact design for efficient triple-cation perovskite solar cells. Chemical Engineering Journal, 2021, 426, 131831.	12.7	22
779	<pre><mml:math altimg="si96.svg" display="inline" id="d1e2235" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">Cs</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow>TiBr</mml:msub></mml:mrow><mml:mrow><mml:mrow>6a^^</mml:mrow></mml:mrow></mml:math></pre>	b ^{2:1} cmml:n ⊳ <mml:mi< td=""><td>nsub><mml: >x</mml: </td></mml:mi<>	nsub> <mml: >x</mml:
780	Computational Condensed Matter, 2021, 29, e00587. Study of lead-free double perovskites halides Cs2TiCl6, and Cs2TiBr6 for optoelectronics, and thermoelectric applications. Materials Science in Semiconductor Processing, 2022, 137, 106180.	4.0	32
781	Thin-film photovoltaics. , 2022, , 19-37.		1

	Сп	CITATION REPORT	
# 782	ARTICLE Is machine learning redefining the perovskite solar cells?. Journal of Energy Chemistry, 2022, 66, 74-90	IF). 12.	Citations 9 27
783	Enhancing efficiency of perovskite solar cells from surface passivation of Co2+ doped CuGaO2 nanocrystals. Journal of Colloid and Interface Science, 2022, 607, 1280-1286.	9.4	11
784	A guide to use fluorinated aromatic bulky cations for stable and high-performance 2D/3D perovskite solar cells: The more fluorination the better?. Journal of Energy Chemistry, 2022, 64, 179-189.	12.	9 28
785	High-Detectivity and sensitive UVA photodetector of polycrystalline CH3NH3PbCl3 improved by α-Ga. nanorod array. Applied Surface Science, 2022, 571, 151291.	203 6.1	. 16
786	Polycrystalline perovskite CH3NH3PbCl3/amorphous Ga2O3 hybrid structure for high-speed, low-dark current and self-powered UVA photodetector. Journal of Alloys and Compounds, 2022, 890, 161827.	5.5	30
787	Unraveling the compositional heterogeneity and carrier dynamics of alkali cation doped 3D/2D perovskites with improved stability. Materials Advances, 2021, 2, 1253-1262.	5.4	23
788	Synergetic effects of electrochemical oxidation of Spiro-OMeTAD and Li ⁺ ion migration for improving the performance of n–i–p type perovskite solar cells. Journal of Materials Chemistry 2021, 9, 7575-7585.	A, 10.	.3 50
789	22.8%-Efficient single-crystal mixed-cation inverted perovskite solar cells with a near-optimal bandgap. Energy and Environmental Science, 2021, 14, 2263-2268.	30.	.8 149
790	Nanoscale Phase Segregation in Supramolecular π-Templating for Hybrid Perovskite Photovoltaics from NMR Crystallography. Journal of the American Chemical Society, 2021, 143, 1529-1538.	13.	7 55
791	Effects of Crystal Morphology on the Hot-Carrier Dynamics in Mixed-Cation Hybrid Lead Halide Perovskites. Energies, 2021, 14, 708.	3.1	8
792	Construction of Structure-Controlled Perovskite Ultra-Thin Layers on Au(100) Single-Crystal Surface <i>via</i> Self-Assembled Monolayer of 4-Aminothiophenol. Bulletin of the Chemical Society of Japan, 2021, 94, 76-80.	3.2	6
793	Future perspectives of perovskite solar cells: Metal oxide-based inorganic hole-transporting materials. , 2021, , 181-219.		5
794	Impact of noncovalent interactions on structural and photophysical properties of zero-dimensional tellurium(<scp>iv</scp>) perovskites. Journal of Materials Chemistry C, 2021, 9, 3271-3286.	5.5	9
795	Effect of Halogen Ions on the Low Thermal Conductivity of Cesium Halide Perovskite. Journal of Physical Chemistry C, 2021, 125, 91-97.	3.1	18
796	Influence of precursor solution temperature on the crystalline nature of mixed halide perovskite thin films grown by one-step deposition method. Journal of Materials Science: Materials in Electronics, 2021, 32, 2459-2470.	2.2	2
797	Polymorphism in metal halide perovskites. Materials Advances, 2021, 2, 47-63.	5.4	31
798	Recent progress in metal sulfide-based electron transport layers in perovskite solar cells. Nanoscale, 2021, 13, 17272-17289.	5.6	0 10
799	Halide Perovskite Metamaterial Directional Emitter. , 2021, , .		0

ARTICLE IF CITATIONS Inverted perovskite solar cells based on potassium salt-modified NiO_X hole transport 800 5.9 8 layers. Materials Chemistry Frontiers, 2021, 5, 3614-3620. Dark Excitons of the Perovskites and Sensitization of Molecular Triplets. ACS Energy Letters, 2021, 6, 17.4 19 588-597. Improving the hole transport performance of perovskite solar cells through adjusting the mobility of 802 5.5 12 the as-synthesized conjugated polymer. Journal of Materials Chemistry C, 2021, 9, 3421-3428. Electrochemical synthesis of annealing-free and highly stable black-phase CsPbI₃ perovskite. Chemical Communications, 2021, 57, 8981-8984. Recent Advances and Perspectives on Powderâ€Based Halide Perovskite Film Processing. Advanced 804 14.9 33 Functional Materials, 2021, 31, 2007350. Discovery of Lead-Free Hybrid Organic/Inorganic Perovskites Using Metaheuristic-Driven DFT Calculations. Chemistry of Materials, 2021, 33, 782-798. 6.7 Mechanochemical syntheses of all-inorganic iodide perovskites from layered cesium titanate and 806 4.1 2 bismuth (and antimony) iodide. Chemical Communications, 2021, 57, 10003-10006. Enhanced stability in perovskite solar cells <i>via</i> room-temperature processing. Journal of 5.5 Materials Chemistry C, 2021, 9, 14749-14756. Guanidiniumâ€Assisted Surface Matrix Engineering for Highly Efficient Perovskite Quantum Dot Photovoltaics. Advanced Materials, 2020, 32, e2001906. 808 21.0 125 Selfâ€Aggregationâ€Controlled Rapid Chemical Bath Deposition of SnO₂ Layers and Stable 809 Dark Depolarization Process for Highly Efficient Planar Perovskite Solar Cells. ChemSusChem, 2020, 6.8 13, 4051-4063. Insight into the structural, electronic, mechanical and optical properties of inorganic lead bromide 810 17 2.1 perovskite APbBr3 (AÂ= Li, Na, K, Rb, and Cs). Computational Condensed Matter, 2020, 24, e00478. Enhanced performance of carbon-based perovskite solar cells with a Li+-doped SnO2 electron 6.1 30 transport layer and Al2O3 scaffold layer. Solar Energy, 2020, 201, 523-529 High-Performance Layered Perovskite Transistors and Phototransistors by Binary Solvent 813 6.7 29 Engineering. Chemistry of Materials, 2021, 33, 1174-1181. Chemical Surface Reactivity and Morphological Changes of Bismuth Triiodide (Bil3) under Different Environmental Conditions. Langmuir, 2020, 36, 6458-6464. 814 3.5 Sustainability in Perovskite Solar Cells. ACS Applied Materials & amp; Interfaces, 2021, 13, 1-17. 815 8.0 53 Synergistic Engineering of Natural Carnitine Molecules Allowing for Efficient and Stable Inverted 14 Perovskite Solar Cells. ACS Applied Materials & amp; Interfaces, 2021, 13, 8595-8605. Unravelling the Behavior of Dion–Jacobson Layered Hybrid Perovskites in Humid Environments. ACS 817 17.4 44 Energy Letters, 2021, 6, 337-344. On-device lead sequestration for perovskite solar cells. Nature, 2020, 578, 555-558. 284

#	Article	IF	CITATIONS
819	A novel water-resistant and thermally stable black lead halide perovskite, phenyl viologen lead iodide C ₂₂ H ₁₈ N ₂ (PbI ₃) ₂ . Dalton Transactions, 2020, 49, 2616-2627.	3.3	14
820	Microstructural and photoconversion efficiency enhancement of compact films of lead-free perovskite derivative Rb ₃ Sb ₂ I ₉ . Journal of Materials Chemistry A, 2020, 8, 4396-4406.	10.3	32
821	Synthetic factors affecting the stability of methylammonium lead halide perovskite nanocrystals. Nanoscale, 2020, 12, 11694-11702.	5.6	9
822	Roadmap on organic–inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	5.1	102
823	Exciton Vortices in Two-Dimensional Hybrid Perovskite Monolayers. Chinese Physics Letters, 2020, 37, 117102.	3.3	3
824	Theoretical investigation of halide perovskites for solar cell and optoelectronic applications*. Chinese Physics B, 2020, 29, 108401.	1.4	15
825	Enhancing the photodetection performance of MAPbI ₃ perovskite photodetectors by a dual functional interfacial layer for color imaging. Optics Letters, 2021, 46, 150.	3.3	18
827	In situ charge carrier dynamics of semiconductor nanostructures for advanced photoelectrochemical and photocatalytic applications. Nanophotonics, 2020, 10, 777-795.	6.0	44
828	Recent Developments in Lead and Lead-Free Halide Perovskite Nanostructures towards Photocatalytic CO2 Reduction. Nanomaterials, 2020, 10, 2569.	4.1	36
829	Recent advances and future prospects in energy harvesting technologies. Japanese Journal of Applied Physics, 2020, 59, 110201.	1.5	68
830	Electronic structure of Li ⁺ @C ₆₀ adsorbed on methyl-ammonium lead iodide perovskite CH ₃ NH ₃ Pbl ₃ surfaces. Materials Advances, 2022, 3, 290-299.	5.4	2
831	Effect of bromine doping on the charge transfer, ion migration and stability of the single crystalline MAPb(Br _{<i>xx</i>} I _{1a^'<i>xx</i>}) ₃ photodetector. Journal of Materials Chemistry C, 2021, 9, 15189-15200.	5.5	23
832	Towards Watt-scale hydroelectric energy harvesting by Ti ₃ C ₂ T _{<i>x</i>} -based transpiration-driven electrokinetic power generators. Energy and Environmental Science, 2022, 15, 123-135.	30.8	70
833	Bio-inspired strategies for next-generation perovskite solar mobile power sources. Chemical Society Reviews, 2021, 50, 12915-12984.	38.1	15
834	Organic additives in all-inorganic perovskite solar cells and modules: from moisture endurance to enhanced efficiency and operational stability. Journal of Energy Chemistry, 2022, 67, 361-390.	12.9	21
835	Unveiling the Effect of Potassium Treatment on the Mesoporous TiO ₂ / Perovskite Interface in Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 11488-11495.	5.1	13
836	Bismuth-based halide perovskite and perovskite-inspired light absorbing materials for photovoltaics. Journal Physics D: Applied Physics, 2022, 55, 113002.	2.8	17
837	Chemical and Electronic Investigation of Buried NiO _{1â^{~1}î} , PCBM, and PTAA/MAPbl _{3–<i>x</i>} Cl _{<i>x</i>} Interfaces Using Hard X-ray Photoelectron Spectroscopy and Transmission Electron Microscopy. ACS Applied Materials & Interfaces, 2021, 13,	8.0	5

#	Article	IF	CITATIONS
838	One-Dimensional (NH=CINH ₃) ₃ PbI ₅ Perovskite for Ultralow Power Consumption Resistive Memory. Research, 2021, 2021, .	5.7	58
839	Interplay of Structure, Chargeâ€Carrier Localization and Dynamics in Copperâ€Silverâ€Bismuthâ€Halide Semiconductors. Advanced Functional Materials, 2022, 32, .	14.9	19
840	Upscaling Solutionâ€Processed Perovskite Photovoltaics. Advanced Energy Materials, 2021, 11, 2101973.	19.5	46
841	Tuning Dielectric Transitions in Two-Dimensional Organic–Inorganic Hybrid Lead Halide Perovskites. Inorganic Chemistry, 2021, 60, 16871-16877.	4.0	18
842	Dynamic Symmetry Conversion in Mixed-Halide Hybrid Perovskite upon Illumination. ACS Energy Letters, 2021, 6, 3858-3863.	17.4	5
843	Material Evolution with Nanotechnology, Nanoarchitectonics, and Materials Informatics: What will be the Next Paradigm Shift in Nanoporous Materials?. Advanced Materials, 2022, 34, e2107212.	21.0	81
844	Ambient-environment processed perovskite solar cells: A review. Materials Today Physics, 2021, 21, 100557.	6.0	12
845	Host-guest complexation in hybrid perovskite optoelectronics. JPhys Materials, 2021, 4, 042011.	4.2	8
846	Ruddlesdenâ€Popper hybrid lead bromide perovskite nanosheets of phase pure n = 2: stabilized colloids stored in the solid state. Angewandte Chemie, 2021, 133, 27518.	2.0	1
847	Double Perovskite Single-Crystal Photoluminescence Quenching and Resurge: The Role of Cu Doping on its Photophysics and Crystal Structure. Journal of Physical Chemistry Letters, 2021, 12, 10444-10449.	4.6	5
848	Halide Perovskite Solar Cells for Building Integrated Photovoltaics: Transforming Building Façades into Power Generators. Advanced Materials, 2022, 34, e2104661.	21.0	37
849	Recycling lead and transparent conductors from perovskite solar modules. Nature Communications, 2021, 12, 5859.	12.8	69
850	Superior Performance and Stability of 2D Dion–Jacobson Halide Perovskite Photodetectors Operated under Harsh Conditions without Encapsulation. Advanced Optical Materials, 2021, 9, 2101523.	7.3	7
851	Lead Sources in Perovskite Solar Cells: Toward Controllable, Sustainable, and Largeâ€Scalable Production. Solar Rrl, 2021, 5, 2100665.	5.8	21
852	Structural, optical, and electrical properties of tin iodide-based vacancy-ordered-double perovskites synthesized via mechanochemical reaction. Ceramics International, 2021, , .	4.8	2
853	Perovskite-Based Facile NiO/CH ₃ NH ₃ Pbl ₃ Heterojunction Self-Powered Broadband Photodetector. ACS Applied Electronic Materials, 2021, 3, 4548-4557.	4.3	26
854	Interface Engineering of Mesoscopic Perovskite Solar Cells by Atomic Layer Deposition of Ta ₂ O ₅ . ACS Applied Energy Materials, 2021, 4, 10433-10441.	5.1	9
855	Third Harmonic Upconversion and Self-Trapped Excitonic Emission in 1D Pyridinium Lead Iodide. Journal of Physical Chemistry C, 2021, 125, 22674-22683.	3.1	10

#	Article	IF	CITATIONS
856	Ruddlesden–Popper Hybrid Lead Bromide Perovskite Nanosheets of Phase Pure <i>n</i> =2: Stabilized Colloids Stored in the Solid State. Angewandte Chemie - International Edition, 2021, 60, 27312-27317.	13.8	8
857	Monocrystalline Methylammonium Lead Halide Perovskite Materials for Photovoltaics. Advanced Materials, 2021, 33, e2102588.	21.0	22
858	Conjugated push-pull type oligomer as a new electron transport material for improved stability p-i-n perovskite solar cells. Synthetic Metals, 2021, 281, 116921.	3.9	1
859	Machine learning stability and band gap of lead-free halide double perovskite materials for perovskite solar cells. Solar Energy, 2021, 228, 689-699.	6.1	23
860	Dual-functional metal (IIB) diethyldithocarbamate salts passivation enabled high-efficiency and stable carbon-based CsPbIBr2 all-inorganic perovskite solar cells. Journal of Power Sources, 2021, 516, 230675.	7.8	7
861	Ultra-stable all-inorganic silver bismuth sulfide colloidal nanocrystal photovoltaics using pin type architecture. Journal of Power Sources, 2021, 514, 230585.	7.8	11
862	Recent advancement in inorganic-organic electron transport layers in perovskite solar cell: current status and future outlook. Materials Today Chemistry, 2021, 22, 100595.	3.5	17
863	Temperature-dependent photoluminescence in hybrid iodine-based perovskites film. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 246801.	0.5	7
864	Single-source flash sublimation of metal-halide semiconductors. , 2019, , .		3
865	Exceptional Progress of Perovskite Solar Cell. Seikei-Kakou, 2019, 31, 456-457.	0.0	0
866	Computer-aided synthesis of cost-effective perovskite crystals: an emerging alternative to silicon solar cells. Clean Technologies and Environmental Policy, 2020, 22, 1187-1198.	4.1	3
867	New Trends in Solar Cells Research. Seikei-Kakou, 2020, 32, 202-205.	0.0	0
868	Effect of the Interaction between Formamidinium Lead Iodine and PbS Quantum Dots in the Black Perovskite Phase Formation and Stability. , 2020, , .		0
869	Organic Salt-Assisted Growth and Orientation of Two-Dimensional Ruddlesden-Popper Perovskites for Efficient Solar Cells. , 2020, , .		0
870	The Study of Photoactive Materials. Reviews and Advances in Chemistry, 2020, 10, 73-111.	0.5	1
872	On-device lead-absorbing tapes for sustainable perovskite solar cells. Nature Sustainability, 2021, 4, 1038-1041.	23.7	53
873	Defect Investigation of Ti-Based Vacancy-Ordered Double Perovskite Solar Cell using SCAPS-1D. Journal of Physics: Conference Series, 2021, 2044, 012100.	0.4	2
874	Efficient and stable mesoscopic perovskite solar cell in high humidity by localized Dion-Jacobson 2Dâ€3D heterostructures. Nano Energy, 2022, 91, 106666.	16.0	42

#	Article	IF	CITATIONS
876	The Role of Alkyl Chain Length and Halide Counter Ion in Layered Dionâ^'Jacobson Perovskites with Aromatic Spacers. Journal of Physical Chemistry Letters, 2021, 12, 10325-10332.	4.6	23
877	A Universal Dopant-Free Polymeric Hole-Transporting Material for Efficient and Stable All-Inorganic and Organic–Inorganic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 52549-52559.	8.0	17
878	Progress in Perovskite Solar Cells towards Commercialization—A Review. Materials, 2021, 14, 6569.	2.9	10
879	Enhancing the performance and stability of carbon-based CsPbI2Br perovskite solar cells via tetrabutylammonium iodide surface passivation. Solar Energy, 2021, 230, 666-674.	6.1	9
880	Energy performance of perovskite solar cell fabrication in Argentina. A life cycle assessment approach. Solar Energy, 2021, 230, 645-653.	6.1	9
881	Ternary-source vapor-phase deposition of CH ₃ NH ₃ PbI ₃ polycrystalline thin films using CH ₃ NH ₂ and HI gas sources with PbI ₂ solid source. Japanese Journal of Applied Physics, 2021, 60, 015505.	1.5	0
882	Approach To Enhance the Stability and Efficiency of Triple-Cation Perovskite Solar Cells by Reactive Antisolvents. ACS Applied Energy Materials, 2021, 4, 47-60.	5.1	4
883	The influence of copper on the optical band gap of heterometallic iodido antimonates and bismuthates. Dalton Transactions, 2021, 50, 15855-15869.	3.3	10
884	The preparation method of double-blade coating to â€~write' high efficiency perovskite solar cells. Organic Electronics, 2022, 100, 106374.	2.6	2
885	Low-temperature processing of polyvinylpyrrolidone modified CsPbI2Br perovskite films for high-performance solar cells. Journal of Solid State Chemistry, 2022, 305, 122656.	2.9	6
886	Energy yield of perovskite solar cells: Influence of location, orientation, and external light management. Solar Energy Materials and Solar Cells, 2022, 234, 111421.	6.2	9
887	Highly efficient perovskite solar cells enhanced by biphenyl-4,4-dithiol. Solar Energy Materials and Solar Cells, 2022, 235, 111462.	6.2	5
888	Improved reproducibility of carbon-based cesium/formamidinium perovskite solar cells via double antisolvent drippings in adduct approach. Organic Electronics, 2022, 100, 106362.	2.6	9
889	Moisture-stimulated reversible thermochromic CsPbI3-xBrx films: In-situ spectroscopic-resolved structure and optical properties. Applied Surface Science, 2022, 573, 151484.	6.1	6
890	Few-layer fluorine-functionalized graphene hole-selective contacts for efficient inverted perovskite solar cells. Chemical Engineering Journal, 2022, 430, 132831.	12.7	13
891	Synergistic passivation by alkali metal and halogenoid ions for high efficiency HTM-free carbon-based CsPbI2Br solar cells. Chemical Engineering Journal, 2022, 430, 133083.	12.7	26
892	High-temperature inverted annealing for efficient perovskite photovoltaics. CrystEngComm, 0, , .	2.6	3
893	Optical Modeling of Thin Film Perovskite Solar Cells. , 2020, , .		1

#	ARTICLE SPR induced photoluminescne quenching in Quantum MAPbBr3 -QD/TiO2 inteface. , 2020, , .	IF	CITATIONS
894 895	Functional nanomaterial in energy and environmental science. , 2020, , 1-23.		0
896	Role of Ultrathin Electron Transport Layers in Performance of Dye-Sensitized and Perovskite Solar Cells. Materials Horizons, 2020, , 479-505.	0.6	0
897	Fiber Perovskite Solar Cells. , 2020, , 137-159.		Ο
898	Investigation on CuxS nanoparticles based hole transfer layer as an inexpensive alternative for next generation solar cells. AIP Conference Proceedings, 2020, , .	0.4	0
899	Properties and applications of hybrid organic-inorganic halide perovskites thin films. , 2020, , .		4
903	Tunable bandgap and luminescence characters in single-phase two-dimensional perovskite AVA2PbCl Br4- alloys. Journal of Materials Research and Technology, 2021, 15, 5353-5359.	5.8	3
904	Ferroelectric Materials for Solar Energy Scavenging and Photodetectors. Advanced Optical Materials, 2022, 10, 2101741.	7.3	18
905	Faradaic junction and isoenergetic charge transfer mechanism on semiconductor/semiconductor interfaces. Nature Communications, 2021, 12, 6363.	12.8	14
906	Tailoring Interlayer Spacers for Efficient and Stable Formamidiniumâ€Based Lowâ€Dimensional Perovskite Solar Cells. Advanced Materials, 2022, 34, e2106380.	21.0	42
907	A chemosensor-based chiral coassembly with switchable circularly polarized luminescence. Nature Communications, 2021, 12, 6320.	12.8	41
908	Surface Reconstruction and In Situ Formation of 2D Layer for Efficient and Stable 2D/3D Perovskite Solar Cells. Small Methods, 2021, 5, e2101000.	8.6	33
911	Can Laminated Carbon Challenge Gold? Toward Universal, Scalable, and Low ost Carbon Electrodes for Perovskite Solar Cells. Advanced Materials Technologies, 2022, 7, 2101148.	5.8	14
912	Upscaling of perovskite solar modules: The synergy of fully evaporated layer fabrication and all″aserâ€scribed interconnections. Progress in Photovoltaics: Research and Applications, 2022, 30, 360-373.	8.1	35
913	Solarzellen mit Bismut statt Blei. Nachrichten Aus Der Chemie, 2020, 68, 20-23.	0.0	0
914	Comparison between Organic and Perovskite Solar Cells: Concept, Materials and Recent Progress. Nanosistemi, Nanomateriali, Nanotehnologii, 2020, 18, .	0.3	1
915	Metal halide perovskites for photocatalysis applications. Journal of Materials Chemistry A, 2022, 10, 407-429.	10.3	61
916	Magnetic-field manipulation of circularly polarized photoluminescence in chiral perovskites. Materials Horizons, 2022, 9, 740-747.	12.2	21

#	Article	IF	CITATIONS
917	Industrial Innovation Through Sustainable Materials. , 2021, , 1-42.		0
918	Top Thermal Annealing of 2D/3D Lead Halide Perovskites: Anisotropic Photoconductivity and Vertical Gradient of Dimensionality. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2021, 34, 263-269.	0.3	3
921	Halide perovskite-based indoor photovoltaics: recent development and challenges. Materials Today Energy, 2022, 23, 100907.	4.7	27
922	Improved Performance and Stability of Perovskite Solar Modules by Regulating Interfacial Ion Diffusion with Nonionic Crossâ€Linked 1D Leadâ€lodide. Advanced Energy Materials, 2022, 12, .	19.5	24
923	Traversing Excitonic and Ionic Landscapes: Reduced-Dimensionality-Inspired Design of Organometal Halide Semiconductors for Energy Applications. Accounts of Chemical Research, 2021, 54, 4371-4382.	15.6	7
924	Tuning the Band Gaps of Oxide and Halide Perovskite Compounds via Biaxial Strain in All Directions. Journal of Physical Chemistry C, 2021, 125, 25951-25958.	3.1	6
925	Multi‣ength Scale Structure of 2D/3D Dion–Jacobson Hybrid Perovskites Based on an Aromatic Diammonium Spacer. Small, 2022, 18, e2104287.	10.0	10
926	Magnetic Effect of Dopants on Bright and Dark Excitons in Strongly Confined Mn-Doped CsPbl ₃ Quantum Dots. Nano Letters, 2021, 21, 9543-9550.	9.1	12
927	Stable polar oxynitrides through epitaxial strain. Physical Review Materials, 2021, 5, .	2.4	2
928	High-Performance Perovskite Solar Cells by Doping Didodecyl Dimethyl Ammonium Bromide in the Hole Transport Layer. ACS Applied Energy Materials, 2021, 4, 13471-13481.	5.1	2
929	Organic Devices: Fabrication, Applications, and Challenges. Journal of Electronic Materials, 2022, 51, 447-485.	2.2	20
930	Gammaâ€Ray Radiation Stability of Mixedâ€Cation Lead Mixedâ€Halide Perovskite Single Crystals. Advanced Optical Materials, 2022, 10, 2102069.	7.3	15
931	A methylammonium iodide healing method for CH ₃ NH ₃ PbI ₃ perovskite solar cells with high fill factor over 80%. Journal of Semiconductors, 2021, 42, 112202.	3.7	2
932	Current status and trends of carbon-based electrodes for fully solution-processed perovskite solar cells. Journal of Energy Chemistry, 2022, 68, 222-246.	12.9	29
933	A Phenanthrocarbazoleâ€Based Dopantâ€Free Holeâ€Transport Polymer with Noncovalent Conformational Locking for Efficient Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	13.8	47
934	Distribution control enables efficient reduced-dimensional perovskite LEDs. Nature, 2021, 599, 594-598.	27.8	358
935	Phenanthrocarbazoleâ€Based Dopantâ€Free Holeâ€Transport Polymer with Noncovalently Conformational Locking for Efficient Perovskite Solar Cells. Angewandte Chemie, 0, , .	2.0	3
936	Effect of Pristine Graphene on Methylammonium Lead Iodide Films and Implications on Solar Cell Performance. ACS Applied Energy Materials, 2021, 4, 13943-13951.	5.1	7

#	Article	IF	CITATIONS
937	Emerging Transistor Applications Enabled by Halide Perovskites. Accounts of Materials Research, 2022, 3, 8-20.	11.7	8
938	Starburst Carbazole Derivatives as Efficient Hole Transporting Materials for Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100877.	5.8	6
939	Mechanochemistry Advances Highâ€Performance Perovskite Solar Cells. Advanced Materials, 2022, 34, e2107420.	21.0	51
940	Tuning the Self-Trapped Emission: Reversible Transformation to 0D Copper Clusters Permits Bright Red Emission in Potassium and Rubidium Copper Bromides. ACS Energy Letters, 2021, 6, 4383-4389.	17.4	16
941	Self-assembled donor-acceptor hole contacts for inverted perovskite solar cells with an efficiency approaching 22%: The impact of anchoring groups. Journal of Energy Chemistry, 2022, 68, 87-95.	12.9	28
942	Lead Stabilization and Iodine Recycling of Lead Halide Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2021, 9, 16519-16525.	6.7	19
943	Halogen Bond Involved Postâ€Treatment for Improved Performance of Printable Holeâ€Conductorâ€Free Mesoscopic Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100851.	5.8	14
945	Coupling Methylammonium and Formamidinium Cations with Halide Anions: Hybrid Orbitals, Hydrogen Bonding, and the Role of Dynamics. Journal of Physical Chemistry C, 2021, 125, 25917-25926.	3.1	4
946	Potential lead toxicity and leakage issues on lead halide perovskite photovoltaics. Journal of Hazardous Materials, 2022, 426, 127848.	12.4	100
947	Crystallization Dynamics of Snâ€Based Perovskite Thin Films: Toward Efficient and Stable Photovoltaic Devices. Advanced Energy Materials, 2022, 12, 2102213.	19.5	63
951	Two-Dimensional Organic Semiconductor-Incorporated Perovskite (OSiP) Electronics. ACS Applied Electronic Materials, 2021, 3, 5155-5164.	4.3	9
952	Stabilization Techniques of Lead Halide Perovskite for Photovoltaic Applications. Solar Rrl, 2022, 6, .	5.8	8
953	D-Ï€-D molecular layer electronically bridges the NiO hole transport layer and the perovskite layer towards high performance photovoltaics. Journal of Energy Chemistry, 2022, 67, 797-804.	12.9	9
954	Resistive-switching and memory in halide perovskite nanoparticles through a corona-poling approach: Necessity of type-I core–shell structures. Applied Physics Letters, 2021, 119, .	3.3	1
955	CsI Enhanced Buried Interface for Efficient and UVâ€Robust Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, 2103151.	19.5	91
956	The hybrid halide perovskite: Synthesis strategies, fabrications, and modern applications. Ceramics International, 2022, 48, 7325-7343.	4.8	17
957	Degradation mechanism and addressing techniques of thermal instability in halide perovskite solar cells. Solar Energy, 2021, 230, 954-978.	6.1	19
958	Cotton soot derived carbon nanoparticles for NiO supported processing temperature tuned ambient perovskite solar cells. Scientific Reports, 2021, 11, 23388.	3.3	13

# 959	ARTICLE Film Fabrication of Perovskites and their Derivatives for Photovoltaic Applications via Chemical Vapor Deposition. ACS Applied Energy Materials, 2022, 5, 5434-5448.	IF 5.1	Citations 7
960	Intramolecular Noncovalent Interactionâ€Enabled Dopantâ€Free Holeâ€Transporting Materials for Highâ€Performance Inverted Perovskite Solar Cells. Angewandte Chemie, 2022, 134, .	2.0	18
961	Fundamental and Development of Perovskite Solar Cells. Journal of the Institute of Electrical Engineers of Japan, 2021, 141, 762-765.	0.0	0
962	Intramolecular Noncovalent Interactionâ€Enabled Dopantâ€Free Holeâ€Transporting Materials for Highâ€Performance Inverted Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, e202113749.	13.8	72
963	Impedance spectroscopy for perovskite solar cells: characterisation, analysis, and diagnosis. Journal of Materials Chemistry C, 2022, 10, 742-761.	5.5	68
964	Generation of Amplified Spontaneous Emission in Lead Halide Perovskite Semiconductors. , 2021, , 1-40.		Ο
965	Halide Perovskites for Photonics: Recent History and Perspectives. , 2021, , 1-28.		1
966	Two-Dimensional Layered Perovskites for Photonic Devices. , 2021, , 1-32.		0
967	Developing sustainable, high-performance perovskites in photocatalysis: design strategies and applications. Chemical Society Reviews, 2021, 50, 13692-13729.	38.1	97
968	Solar energy conversion using first row d-block metal coordination compound sensitizers and redox mediators. Chemical Science, 2022, 13, 1225-1262.	7.4	35
969	Dualâ€Functional Quantum Dot Seeding Growth of Highâ€Quality Airâ€Processed CsPbI ₂ Br Film for Carbonâ€Based Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100989.	5.8	20
970	Design of dopant-free small molecular hole transport materials for perovskite solar cells: a viewpoint from defect passivation. Journal of Materials Chemistry A, 2022, 10, 1150-1178.	10.3	44
971	Developments on Perovskite Solar Cells (PSCs): A Critical Review. Applied Sciences (Switzerland), 2022, 12, 672.	2.5	25
972	Multiple bonding effects of 1-methanesulfonyl-piperazine on the two-step processed perovskite towards efficient and stable solar cells. Nano Energy, 2022, 93, 106856.	16.0	20
973	A compendium and meta-analysis of flatband potentials for TiO2, ZnO, and SnO2 semiconductors in aqueous media. Chemical Physics Reviews, 2022, 3, .	5.7	9
974	Enhanced field emission properties of CsPbBr3 films by thermal annealing and surface functionalization with boron nitride. Applied Surface Science, 2022, 578, 152116.	6.1	6
975	Uncovering synergistic effect of chloride additives for efficient quasi-2D perovskite solar cells. Chemical Engineering Journal, 2022, 432, 134367.	12.7	26
976	A short review on progress in perovskite solar cells. Materials Research Bulletin, 2022, 149, 111700.	5.2	48

#	Article	IF	CITATIONS
977	In situ transmission electron microscopy and artificial intelligence enabled data analytics for energy materials. Journal of Energy Chemistry, 2022, 68, 454-493.	12.9	33
978	The role of solvents in the formation of methylammonium lead triiodide perovskite. Journal of Energy Chemistry, 2022, 68, 393-400.	12.9	10
979	Synergistic stabilization of CsPbI3 inorganic perovskite via 1D capping and secondary growth. Journal of Energy Chemistry, 2022, 68, 387-392.	12.9	16
980	A study of Cesium Titanium Bromide based perovskite solar cell with different Hole and Electron transport materials. , 2020, , .		4
981	Preparation of CsPbBr ₃ Perovskite Single Crystal and Research on Its Photodetector. Applied Physics, 2021, 11, 445-452.	0.0	0
982	Double Inorganic Hole Extraction Layer of Cs:NiO _x /CuInS ₂ for Perovskite Solar Cells with Enhanced Efficiency and Stability. SSRN Electronic Journal, 0, , .	0.4	0
983	Numerical development of lead-free Cs ₂ Til ₆ -based perovskite solar cell via SCAPS-1D. E3S Web of Conferences, 2022, 336, 00050.	0.5	13
984	Recent Advances in Organic and Organic–Inorganic Hybrid Materials for Piezoelectric Mechanical Energy Harvesting. Advanced Functional Materials, 2022, 32, .	14.9	124
985	The Reactivity of CsPbBr ₃ Nanocrystals toward Acid/Base Ligands. ACS Nano, 2022, 16, 1444-1455.	14.6	33
986	Organic compound passivation for perovskite solar cells with improving stability and photoelectric performance. Solar Energy, 2022, 231, 414-419.	6.1	4
987	Laser floating zone growth of SrVO3 single crystals. Journal of Crystal Growth, 2022, 583, 126518.	1.5	5
988	Iontronic Electroluminescence Devices: Comparing Halide Perovskites and Conjugated Polymers. ACS Applied Electronic Materials, 2022, 4, 568-575.	4.3	4
989	Perovskite Nanowires for Next-Generation Optoelectronic Devices: Lab to Fab. ACS Applied Energy Materials, 2022, 5, 1342-1377.	5.1	9
990	Solvent-Additive Coordination Effect on Lead-Iodide Precursor for Enlarging Grain Size of Perovskite Film. ACS Applied Energy Materials, 2022, 5, 27-34.	5.1	4
991	Active meta-learning for predicting and selecting perovskite crystallization experiments. Journal of Chemical Physics, 2022, 156, 064108.	3.0	11
992	Methylthiophene terminated D–π–D molecular semiconductors as multifunctional interfacial materials for high performance perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 1862-1869.	5.5	4
993	Introduction to compound semiconductor nanocrystals and their applications. , 2022, , 1-46.		1
994	Molecular Engineering in Perovskite Solar Cells: A Computational Study on 2â€Mercaptopyridine Derivatives as Surface Passivators against Water. Advanced Materials Interfaces, 2022, 9, .	3.7	11

#	Article	IF	CITATIONS
995	Formation of CsPbCl ₃ Cubes and Edge-Truncated Cuboids at Room Temperature. ACS Sustainable Chemistry and Engineering, 2022, 10, 1578-1584.	6.7	8
996	Chiral Hybrid Copper(I) Halides for High Efficiency Second Harmonic Generation with a Broadband Transparency Window. Angewandte Chemie, 0, , .	2.0	7
997	Research progress of atomic layer deposition technology to improve the long-term stability of perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 819-839.	5.5	13
998	Density Functional Theory Estimate of Halide Perovskite Band Gap: When Spin Orbit Coupling Helps. Journal of Physical Chemistry C, 2022, 126, 2184-2198.	3.1	40
999	Emerging materials for circularly polarized light detection. Journal of Materials Chemistry C, 2022, 10, 2400-2410.	5.5	34
1000	Alleviating Interfacial Recombination of Heterojunction Electron Transport Layer via Oxygen Vacancy Engineering for Efficient Perovskite Solar Cells Over 23%. Energy and Environmental Materials, 2023, 6, .	12.8	4
1001	Organometal halide perovskite photovoltaics. , 2022, , 273-317.		1
1002	Advances in single crystals and thin films of chiral hybrid metal halides. Progress in Quantum Electronics, 2022, 82, 100375.	7.0	14
1003	Molecular interactions and functionalities of an organic additive in a perovskite semiconducting device: a case study towards high performance solar cells. Journal of Materials Chemistry A, 2022, 10, 2876-2887.	10.3	14
1004	Defects and stability of perovskite solar cells: a critical analysis. Materials Chemistry Frontiers, 2022, 6, 400-417.	5.9	68
1005	The Emerging Role of Halogen Bonding in Hybrid Perovskite Photovoltaics. Chemistry of Materials, 2022, 34, 2495-2502.	6.7	29
1006	Phase transitions and (<i>p–T–X</i>) behaviour of centrosymmetric perovskites: modelling with transformed crystallographic data. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2022, 78, 40-60.	1.1	1
1007	(C ₃ N ₂ H ₅) ₃ Sb ₂ I ₉ and (C ₃ N ₂ H ₅) ₃ Bi ₂ I ₉ : ferroelastic lead-free hybrid perovskite-like materials as potential semiconducting absorbers. Dalton Transactions, 2022, 51, 1850-1860.	3.3	17
1008	FAPbBr ₃ perovskite solar cells with <i>V</i> _{OC} values over 1.5 V by controlled crystal growth using tetramethylenesulfoxide. Journal of Materials Chemistry A, 2022, 10, 672-681.	10.3	10
1009	Chiral Hybrid Copper(I) Halides for High Efficiency Second Harmonic Generation with a Broadband Transparency Window. Angewandte Chemie - International Edition, 2022, 61, .	13.8	53
1010	Defects and passivation in perovskite solar cells. Surface Innovations, 2022, 10, 3-20.	2.3	18
1011	Influence of intrinsic defects on the structure and dynamics of the mixed Pb–Sn perovskite: first-principles DFT and NAMD simulations. Journal of Materials Chemistry A, 2021, 10, 234-244.	10.3	11
1012	Understanding the role of spacer cation in 2D layered halide perovskites to achieve stable perovskite solar cells. Materials Advances, 2022, 3, 2464-2474.	5.4	7

# 1013	ARTICLE Energy Level Alignment of Formamidinium Tin Iodide in Contact with Organic Hole Transport Materials. Physica Status Solidi (A) Applications and Materials Science, 0, , 2100698.	IF 1.8	CITATIONS
1014	Development and Prospects of Halide Perovskite Single Crystal Films. Advanced Electronic Materials, 2022, 8, .	5.1	6
1015	Three-dimensional direct lithography of stable perovskite nanocrystals in glass. Science, 2022, 375, 307-310.	12.6	190
1016	Carrier recombination in CH ₃ NH ₃ PbI ₃ : why is it a slow process?. Reports on Progress in Physics, 2022, 85, 024501.	20.1	17
1017	Ferroic phase transition molecular crystals. CrystEngComm, 2022, 24, 1507-1517.	2.6	25
1018	Photon Echo Polarimetry of Excitons and Biexcitons in a CH ₃ NH ₃ PbI ₃ Perovskite Single Crystal. ACS Photonics, 2022, 9, 621-629.	6.6	7
1019	An ultrahigh 84.3% fill factor for efficient CH3NH3PbI3 P-i-N perovskite film solar cell. Solar Energy, 2022, 233, 271-277.	6.1	5
1020	Chemo-thermal surface dedoping for high-performance tin perovskite solar cells. Matter, 2022, 5, 683-693.	10.0	97
1021	Halide Ions Distribution and Charge Dynamics in Mixedâ€Halide Perovskites. Physica Status Solidi - Rapid Research Letters, 2022, 16, .	2.4	3
1022	Mechanochromic Luminescence of Composites Based on (CH 3 NH 3)PbBr 3 and Layered HPs: Influence of 2D Components and Interface Multilayered Phases. European Journal of Inorganic Chemistry, 0, , .	2.0	0
1023	A Photochromic Organic–Inorganic Hybrid Schiff Base Metal Halide Ferroelectric. Chemistry of Materials, 2022, 34, 1737-1745.	6.7	10
1024	Surface dipole affords high-performance carbon-based CsPbI2Br perovskite solar cells. Chemical Engineering Journal, 2022, 433, 134611.	12.7	24
1025	Dual interfacial engineering to improve ultraviolet and near-infrared light harvesting for efficient and stable perovskite solar cells. Chemical Engineering Journal, 2022, 435, 134792.	12.7	7
1026	Multi-cation hybrid stannic oxide electron transport layer for high-efficiency perovskite solar cells. Journal of Colloid and Interface Science, 2022, 614, 415-424.	9.4	9
1027	Improving water-resistance of inverted flexible perovskite solar cells via tailoring the top electron-selective layers. Solar Energy Materials and Solar Cells, 2022, 238, 111609.	6.2	19
1028	Flexible hybrid perovskite nanofiber for all-inorganic perovskite solar cells. Materials Research Bulletin, 2022, 149, 111747.	5.2	11
1029	Revealing the strain-associated physical mechanisms impacting the performance and stability of perovskite solar cells. Joule, 2022, 6, 458-475.	24.0	64
1030	Converting the Charge Transfer in ZnO/Zn <i>_x</i> Cd _{1â€} <i>_x</i> Sâ€DETA Nanocomposite from Type″ to Sâ€scheme for Efficient Photocatalytic Hydrogen Production. Advanced Materials Interfaces, 2022, 9, .	3.7	10

ARTICLE

IF CITATIONS

Facile synthesis and optical study of organic-inorganic lead bromide perovskite-clay (kaolinite,) Tj ETQq0 0 0 rgBT /Qverlock 10 Tf 50 742

1032	Achieve Better Performance of Inverted Perovskite Solar Cells by Using the Fluorinated Polymer as the Electron Transporting Layer. ACS Applied Energy Materials, 0, , .	5.1	2
1033	High performance wide bandgap Lead-free perovskite solar cells by monolayer engineering. Chemical Engineering Journal, 2022, 436, 135196.	12.7	33
1034	Sharp-edged nanoflakes array of CuO with enhanced optical and charge transport properties for Bias-Free tandem solar Water-splitting. Applied Surface Science, 2022, 585, 152632.	6.1	11
1035	Phase segregation induced efficiency degradation and variability in mixed halide perovskite solar cells. Journal of Applied Physics, 2021, 130, .	2.5	12
1036	Probing the Exciton Diffusion Length of Short-Ligands Passivated Metal Halide Perovskite Nanocrystal Films. Journal of Physical Chemistry C, 2021, 125, 27638-27646.	3.1	5
1037	Colloidal Inorganic Ligand-Capped Nanocrystals: Fundamentals, Status, and Insights into Advanced Functional Nanodevices. Chemical Reviews, 2022, 122, 4091-4162.	47.7	52
1038	Copper coordination polymers with selective hole conductivity. Journal of Materials Chemistry A, 2022, 10, 9582-9591.	10.3	9
1039	Inch-size Cs ₃ Bi ₂ I ₉ polycrystalline wafers with near-intrinsic properties for ultralow-detection-limit X-ray detection. Journal of Materials Chemistry C, 2022, 10, 6665-6672.	5.5	18
1040	Mobility driven thermoelectric and optical properties of two-dimensional halide-based hybrid perovskites: impact of organic cation rotation. Physical Chemistry Chemical Physics, 2022, 24, 8867-8880.	2.8	7
1041	A Fully Printed Organic-Inorganic Metal Halide Perovskite Photocathode for Photoelectrochemical Reduction of Cr(Vi) in Aqueous Solution. SSRN Electronic Journal, 0, , .	0.4	0
1042	Theoretical investigation of FAPbSnGeX ₃ efficiency. RSC Advances, 2022, 12, 8945-8952.	3.6	2
1043	Synthesis and luminescence of Cs ₂ HfCl ₆ micro- and Cs ₂ HfF ₆ nanoparticles. Journal of Materials Chemistry C, 2022, 10, 4383-4392.	5.5	6
1044	Sustainable development of perovskite solar cells: keeping a balance between toxicity and efficiency. Journal of Materials Chemistry A, 2022, 10, 8159-8171.	10.3	19
1045	Predicting compositional changes of organic–inorganic hybrid materials with Augmented CycleGAN. , 2022, 1, 255-265.		3
1046	Spray deposited polycrystalline MAPbBr ₃ thick films for hole-transport-material free solar cells. Chemical Communications, 2022, , .	4.1	0
1047	Device performance improvements in all-inorganic perovskite light-emitting diodes: the role of binary ammonium cation terminals. Physical Chemistry Chemical Physics, 2022, 24, 6208-6214.	2.8	2
1049	White-emitting film of diblock copolymer micelles with perovskite nanocrystals. RSC Advances, 2022, 12, 6389-6395.	3.6	1

#	Article	IF	CITATIONS
1050	Anion Induced Bottom Surface Passivation for High Performance Perovskite Solar Cell. SSRN Electronic Journal, 0, , .	0.4	0
1051	Tantalum Oxide as an Efficient Alternative Electron Transporting Layer for Perovskite Solar Cells. Nanomaterials, 2022, 12, 780.	4.1	6
1052	Unified picture for the pressure-controlled band gap in inorganic halide perovskites: Role of strain-phonon and phonon-phonon couplings. Physical Review B, 2022, 105, .	3.2	1
1053	Rapid anti-solvent vapor-assisted synthesis of CsPbBr3/Cs4PbBr6 microcrystals with high brightness and stability of green light emission. Journal of Materials Science, 2022, 57, 5374-5383.	3.7	1
1054	Correlating Symmetries of Lowâ€Frequency Vibrations and Selfâ€Trapped Excitons in Layered Perovskites for Light Emission with Different Colors. Small, 2022, , 2106759.	10.0	10
1055	Alkali Additives Enable Efficient Large Area (>55 cm ²) Slotâ€Die Coated Perovskite Solar Modules. Advanced Functional Materials, 2022, 32, .	14.9	39
1056	Uncovering the Mechanism of Poly(ionicâ€liquid)s Multiple Inhibition of Ion Migration for Efficient and Stable Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	19.5	36
1057	Hysteresis in hybrid perovskite indoor photovoltaics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20210144.	3.4	4
1058	Semitransparent Perovskite Solar Cells with > 13% Efficiency and 27% Transperancy Using Plasmonic Au Nanorods. ACS Applied Materials & Interfaces, 2022, 14, 11339-11349.	8.0	29
1059	Deconvolution of Lightâ€Induced Ion Migration Phenomena by Statistical Analysis of Cathodoluminescence in Lead Halideâ€Based Perovskites. Advanced Science, 2022, 9, e2103729.	11.2	13
1060	Strain Engineering: A Pathway for Tunable Functionalities of Perovskite Metal Oxide Films. Nanomaterials, 2022, 12, 835.	4.1	13
1061	Combining Perovskites and Quantum Dots: Synthesis, Characterization, and Applications in Solar Cells, LEDs, and Photodetectors. Advanced Optical Materials, 2022, 10, .	7.3	23
1062	The phosphorescence emission in undoped lead-halide Cs4PbBr6 single crystals at low temperature. Ceramics International, 2022, 48, 16730-16736.	4.8	2
1063	Black‥ellow Bandgap Tradeâ€Off During Thermal Stability Tests in Lowâ€Temperature Euâ€Đoped CsPbl ₃ . Solar Rrl, 2022, 6, .	5.8	8
1064	Anionâ€Exchange Driven Phase Transition in CsPbl ₃ Nanowires for Fabricating Epitaxial Perovskite Heterojunctions. Advanced Materials, 2022, 34, e2109867.	21.0	11
1065	Physically Detachable and Operationally Stable Cs ₂ SnI ₆ Photodetector Arrays Integrated with µ‣EDs for Broadband Flexible Optical Systems. Advanced Materials, 2022, 34, e2109673.	21.0	19
1066	Sensitivity and Detection Limit of Spectroscopicâ€Grade Perovskite CsPbBr ₃ Crystal for Hard Xâ€Ray Detection. Advanced Functional Materials, 2022, 32, .	14.9	32
1067	Temperature-Dependent EXAFS Measurements of the Pb L3-Edge Allow Quantification of the Anharmonicity of the Lead–Halide Bond of Chlorine-Substituted Methylammonium (MA) Lead Triiodide. Journal of Physical Chemistry C, 2022, 126, 5388-5402.	3.1	5

# 1068	ARTICLE Inorganic CsPbBr ₃ Perovskite Nanocrystals as Interfacial Ion Reservoirs to Stabilize FAPbI ₃ Perovskite for Efficient Photovoltaics. Advanced Energy Materials, 2022, 12, .	IF 19.5	CITATIONS
1069	Chlorobenzenesulfonic Potassium Salts as the Efficient Multifunctional Passivator for the Buried Interface in Regular Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	19.5	119
1070	Recent Progress in Perovskite Materials Using Diammonium Organic Cations Toward Stable and Efficient Solar Cell Devices: Dion–Jacobson. Energy Technology, 2022, 10, .	3.8	9
1071	Energy Transfer Assisted Fast Xâ€ray Detection in Direct/Indirect Hybrid Perovskite Wafer. Advanced Science, 2022, 9, e2103735.	11.2	20
1072	Deep Generative Models for Materials Discovery and Machine Learning-Accelerated Innovation. Frontiers in Materials, 2022, 9, .	2.4	19
1073	Assessment of Leadâ€Free Tin Halide Perovskite Solar Cells Using <i>J–V</i> Hysteresis. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	1.8	19
1074	Pyreneâ€Based Dopantâ€Free Holeâ€Transport Polymers with Fluorine Induced Favorable Molecular Stacking Enable Efficient Perovskite Solar Cells. Angewandte Chemie, 0, , .	2.0	4
1075	Mirrorâ€Image Magnetic Circularly Polarized Luminescence from Perovskite (M ⁺ Pb ²⁺ Br ₃ , M ⁺ =Cs ⁺ and Amidinium) Quantum Dots. European Journal of Inorganic Chemistry, 2022, 2022, .	2.0	3
1076	Metal Halide Perovskite Based Heterojunction Photocatalysts. Angewandte Chemie - International Edition, 2022, 61, .	13.8	48
1077	Delineation and Passivation of Grainâ€Boundary Channels in Metal Halide Perovskite Thin Films for Solar Cells. Advanced Materials Interfaces, 2022, 9, .	3.7	4
1078	Crystal Growth Regulation of 2D/3D Perovskite Films for Solar Cells with Both High Efficiency and Stability. Advanced Materials, 2022, 34, e2200705.	21.0	91
1079	What Happens When Halide Perovskites Meet with Water?. Journal of Physical Chemistry Letters, 2022, 13, 2281-2290.	4.6	70
1080	Autonomous Reconstitution of Fractured Hybrid Perovskite Single Crystals. Advanced Materials, 2022, 34, e2109374.	21.0	11
1081	0D/2D Mixed Dimensional Lead-Free Caesium Bismuth Iodide Perovskite for Solar Cell Application. Materials, 2022, 15, 2180.	2.9	10
1082	PbI ₂ Nanocrystal Growth by Atomic Layer Deposition from Pb(tmhd) ₂ and HI. Chemistry of Materials, 2022, 34, 2553-2561.	6.7	2
1083	Metal Halide Perovskite Based Heterojunction Photocatalysts. Angewandte Chemie, 2022, 134, .	2.0	11
1084	Airâ€Processed Carbonâ€Based Cs _{0.5} FA _{0.5} Pbl ₃ –Cs ₄ Pbl ₆ Heterostructure Perovskite Solar Cells with Efficiency Over 16%. Solar Rrl, 2022, 6, .	5.8	11
1085	Flexible Perovskite Solar Cells: From Materials and Device Architectures to Applications. ACS Energy Letters, 2022, 7, 1412-1445.	17.4	54

#	Article	IF	Citations
1086	Influence of Halide Choice on Formation of Lowâ€Dimensional Perovskite Interlayer in Efficient Perovskite Solar Cells. Energy and Environmental Materials, 2022, 5, 670-682.	12.8	9
1087	Impact of Cesium Concentration on Optoelectronic Properties of Metal Halide Perovskites. Materials, 2022, 15, 1936.	2.9	10
1088	Nanophotonic-structured front contact for high-performance perovskite solar cells. Science China Materials, 2022, 65, 1727-1740.	6.3	5
1089	Manufacturing a TiO2-Based Semiconductor Film with Nanofluid Pool Boiling and Sintering Processes toward Solar-Cell Applications. Nanomaterials, 2022, 12, 1165.	4.1	5
1090	Pyreneâ€Based Dopantâ€Free Holeâ€Transport Polymers with Fluorineâ€Induced Favorable Molecular Stacking Enable Efficient Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	13.8	31
1091	Synergetic Effect on Enhanced Photovoltaic Performance of Spray-Coated Perovskite Solar Cells Enabled by Additive Doping and Antisolvent Additive Spraying Treatment. ACS Applied Energy Materials, 2022, 5, 4149-4158.	5.1	10
1092	Influence of Annealing and Composition on the Crystal Structure of Mixed-Halide, Ruddlesden–Popper Perovskites. Chemistry of Materials, 2022, 34, 3109-3122.	6.7	27
1093	Controlling the Decomposition of Hybrid Perovskite by a Dithienopyrrole-Based Hole Transport Layer toward Thermostable Solar Cells. , 2022, 4, 600-608.		1
1094	Advanced Nonvolatile Organic Optical Memory Using Self-Assembled Monolayers of Porphyrin–Fullerene Dyads. ACS Applied Materials & Interfaces, 2022, 14, 15461-15467.	8.0	15
1095	Investigation of the Acceleration and Suppression of the Light-Induced Degradation of a Lead Halide Perovskite Solar Cell Using Hard X-ray Photoelectron Spectroscopy. ACS Applied Energy Materials, 2022, 5, 4125-4137.	5.1	4
1096	Sputtered WOx thin film as the electron transport layer for efficient perovskite solar cells. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	2.3	9
1097	Microscopic picture of paraelectric perovskites from structural prototypes. Physical Review Research, 2022, 4, .	3.6	11
1098	Understanding of Layer-Dependent Stability and Rashba Spin Splitting of Two-Dimensional Organic–Inorganic Halide Perovskites α-FABX ₃ (B = Ge, Sn, and Pb; X = Cl, Br, and I). Journal of Physical Chemistry C, 2022, 126, 6448-6455.	3.1	1
1099	Phaseâ€Pure Engineering for Efficient and Stable Formamidiniumâ€Based Perovskite Solar Cells. Solar Rrl, 2022, 6, .	5.8	16
1100	Improved water repellency and environmental stability of perovskite solar cells by encapsulating with paraffin wax. Materials Chemistry and Physics, 2022, 282, 125954.	4.0	7
1101	Investigation of the role of back contact work function for hole transporting layer free perovskite solar cells applications. Optik, 2022, 256, 168749.	2.9	19
1102	Research Progress on the Stability of Organic–Inorganic Halide Perovskite Photodetectors in a Humid Environment Through the Modification of Perovskite Layers. Journal of Electronic Materials, 2022, 51, 2801-2818.	2.2	9
1103	Perovskite Photovoltaics for Artificial Light Harvesting. Chemistry - A European Journal, 2022, 28, .	3.3	3

#	Article	IF	CITATIONS
1104	Improving stability of perovskite solar cells using fullerene-polymer composite electron transport layer. Synthetic Metals, 2022, 286, 117028.	3.9	9
1105	Highly luminescent lead bromine perovskite via fast and eco-friendly water-assisted mechanochemical method. Optical Materials, 2022, 127, 112289.	3.6	2
1106	Halide perovskite based synaptic devices for neuromorphic systems. Materials Today Physics, 2022, 24, 100667.	6.0	7
1107	Multifunctional nanostructured host-guest POM@MOF with lead sequestration capability induced stable and efficient perovskite solar cells. Nano Energy, 2022, 97, 107184.	16.0	37
1108	Recent progress of perovskite devices fabricated using thermal evaporation method: Perspective and outlook. Materials Today Advances, 2022, 14, 100232.	5.2	28
1109	Aqueous-phase assembly of ultra-stable perovskite nanocrystals in chiral cellulose nanocrystal films for circularly polarized luminescence. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 645, 128921.	4.7	8
1110	Performance investigation of experimentally fabricated lead iodide perovskite solar cell via numerical analysis. Materials Research Bulletin, 2022, 151, 111802.	5.2	12
1111	Cs2SnI6 nanocrystals enhancing hole extraction for efficient carbon-based CsPbI2Br perovskite solar cells. Chemical Engineering Journal, 2022, 440, 135710.	12.7	31
1112	Anion induced bottom surface passivation for high performance perovskite solar cell. Chemical Engineering Journal, 2022, 442, 135895.	12.7	5
1113	Improving the triple-cation perovskite solar cells by two-step deposition methods with perovskite seeds. Journal of Physics: Conference Series, 2021, 2145, 012028.	0.4	0
1114	Lightâ€Induced Synaptic Effects Controlled by Incorporation of Chargeâ€Trapping Layer into Hybrid Perovskite Memristor. Advanced Electronic Materials, 2022, 8, .	5.1	9
1115	Illumination Power-Dependent Electroabsorption of Excitons in a CH ₃ NH ₃ PbI ₃ Perovskite Film. Journal of Physical Chemistry C, 2021, 125, 27631-27637.	3.1	2
1116	Oxidized Spiro-OMeTAD: Investigation of Stability in Contact with Various Perovskite Compositions. ACS Applied Energy Materials, 2021, 4, 13696-13705.	5.1	24
1117	Highly Foldable Perovskite Solar Cells Using Embedded Polyimide/Silver Nanowires Conductive Substrates. Advanced Materials Interfaces, 2022, 9, .	3.7	12
1118	Band alignment and carrier recombination roles on the open circuit voltage of ETLâ€passivated perovskite photovoltaics. International Journal of Energy Research, 2022, 46, 6022-6030.	4.5	2
1119	A Near-Room-Temperature Hybrid Organic–Inorganic Lead Halide Perovskite Ferroelectric [BrCH ₂ CH ₂ N(CH ₃) ₃][PbBr ₃] and Its Flexible Composite Film. Journal of Physical Chemistry C, 2022, 126, 728-736.	3.1	10
1120	Effect of Deposit Au thin Layer Between Layers of Perovskite Solar Cell on Cell's Performance. Iraqi Journal of Physics, 2021, 19, 23-32.	0.4	2
1122	A 3D Lead Iodide Hybrid Based on a 2D Perovskite Subnetwork. Crystals, 2021, 11, 1570.	2.2	2

#	Article	IF	CITATIONS
1123	Unveiling the brittleness of hybrid organic–inorganic 0-D histammonium zinc chlorometallate by nanoindentation. Applied Physics Letters, 2021, 119, 241903.	3.3	2
1124	Nonmonotonic Photostability of BA ₂ MA _{<i>n</i>–1} Pb _{<i>n</i>} I _{3<i>n</i>+1} Homologous Layered Perovskites. ACS Applied Materials & Interfaces, 2022, 14, 961-970.	8.0	13
1125	Detecting ionizing radiation using halide perovskite semiconductors processed through solution and alternative methods. Nature Photonics, 2022, 16, 14-26.	31.4	122
1126	An Ensemble Learning Platform for the Large-Scale Exploration of New Double Perovskites. ACS Applied Materials & Interfaces, 2022, 14, 717-725.	8.0	16
1127	Lead-free hybrid perovskite photocatalysts: surface engineering, charge-carrier behaviors, and solar-driven applications. Journal of Materials Chemistry A, 2022, 10, 12296-12316.	10.3	29
1128	Perovskites: weaving a network of knowledge beyond photovoltaics. Journal of Materials Chemistry A, 2022, 10, 19046-19066.	10.3	5
1129	Nanosegregation in arene-perfluoroarene π-systems for hybrid layered Dion–Jacobson perovskites. Nanoscale, 2022, 14, 6771-6776.	5.6	7
1130	Spin Dynamics of Electrons and Holes Interacting with Nuclei in MAPbI ₃ Perovskite Single Crystals. ACS Photonics, 2022, 9, 1375-1384.	6.6	14
1131	Molecular Hinges Stabilize Formamidiniumâ€Based Perovskite Solar Cells with Compressive Strain. Advanced Functional Materials, 2022, 32, .	14.9	50
1132	Perovskite synthesizability using graph neural networks. Npj Computational Materials, 2022, 8, .	8.7	16
1133	Buried Interface Modification in Perovskite Solar Cells: A Materials Perspective. Advanced Energy Materials, 2022, 12, .	19.5	87
1134	Silicon Dioxide Nanoparticles Increase the Incidence Depth of Short-Wavelength Light in Active Layer for High-Performance Perovskite Solar Cells. Journal of Physical Chemistry C, 2022, 126, 7400-7409.	3.1	1
1135	Recent progress in terahertz metamaterial modulators. Nanophotonics, 2022, 11, 1485-1514.	6.0	51
1136	Mesoporous Materials and Nanoscale Phenomena in Hybrid Photovoltaics. Nanomaterials, 2022, 12, 1307.	4.1	0
1137	Molecular engineering of starâ€ s haped indoline hole transport materials: The influence of planarity on the hole extraction and transport processes. Chemistry - A European Journal, 2022, , .	3.3	1
1141	Enhancement of All-Inorganic Perovskite Solar Cells by Lead–Cerium Bimetal Strategy. ACS Applied Materials & Interfaces, 2022, 14, 20230-20236.	8.0	13
1142	Suppressing thermal quenching via defect passivation for efficient quasi-2D perovskite light-emitting diodes. Light: Science and Applications, 2022, 11, 69.	16.6	60
1143	Halide perovskites and perovskite related materials for particle radiation detection. Nanoscale, 2022, 14, 6743-6760.	5.6	17

#	Article	IF	CITATIONS
1144	Alternative Approaches for Scalable Artificial Photosynthesis <i>via</i> Sustainable Redox Processes. RSC Green Chemistry, 2022, , 175-206.	0.1	0
1145	AIE-active materials for photovoltaics. , 2022, , 427-447.		1
1146	Synthesis and Extraction of Carbon-Encapsulated Iron Carbide Nanoparticles for Perovskite Solar Cell Application. SSRN Electronic Journal, 0, , .	0.4	0
1147	Combinatorial Exploration of Monovalent Metals (M, M′) in Alkali, 11th-, and 13th-Group Elements toward (M/M′)–(Bi/Sb)–l Solar Cells. ACS Applied Energy Materials, 2022, 5, 6291-6301.	5.1	1
1148	A rare 3D hybrid bimetal halide ferroelectric: (3-Hydroxypyrrolidinium)2RbBiBr6. Science China Materials, 2022, 65, 2879-2883.	6.3	9
1149	Ultrathin, Transparent, and High Density Perovskite Scintillator Film for High Resolution Xâ€Ray Microscopic Imaging. Advanced Science, 2022, 9, e2200831.	11.2	37
1150	Rashba and Dresselhaus effects in two-dimensional Pb-I-based perovskites. Physical Review B, 2022, 105, .	3.2	7
1151	Stabilizing α-phase FAPbI ₃ solar cells. Journal of Semiconductors, 2022, 43, 040202.	3.7	5
1152	Global prediction of the energy yields for hybrid perovskite/Si tandem and Si heterojunction single solar modules. Progress in Photovoltaics: Research and Applications, 2022, 30, 1198-1218.	8.1	4
1153	Structural Dynamics and Tunability for Colloidal Tin Halide Perovskite Nanostructures. Advanced Materials, 2022, 34, e2201353.	21.0	16
1154	Stability and Efficiency Enhancement of Perovskite Solar Cells Using Phenyltriethylammonium Iodide. Advanced Materials Interfaces, 0, , 2200464.	3.7	11
1155	Advances in Photoelectric Detection Units for Imaging Based on Perovskite Materials. Laser and Photonics Reviews, 2022, 16, .	8.7	9
1156	Anion diffusion in two-dimensional halide perovskites. APL Materials, 2022, 10, .	5.1	7
1157	Pseudohalide-Assisted Growth of Oriented Large Grains for High-Performance and Stable 2D Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 1842-1849.	17.4	29
1158	Terahertz Kerr effect in a methylammonium lead bromide perovskite crystal. Physical Review B, 2022, 105, .	3.2	4
1159	Comparative performance analysis of lead-free perovskites solar cells by numerical simulation. Journal of Applied Physics, 2022, 131, .	2.5	32
1160	Progress on Emerging Ferroelectric Materials for Energy Harvesting, Storage and Conversion. Advanced Energy Materials, 2022, 12, .	19.5	45
1161	Strategies for highâ€performance perovskite solar cells from materials, film engineering to carrier dynamics and photon management. InformaÄnÃ-Materiály, 2022, 4, .	17.3	27

#	Article	IF	CITATIONS
1162	Intrinsic defects in primary halide perovskites: A first-principles study of the thermodynamic trends. Physical Review Materials, 2022, 6, .	2.4	15
1163	Multifunctional Passivation Strategy of Cationic and Anionic Defects for Efficient and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 5928-5936.	5.1	6
1164	Tautomeric Dualâ€Site Passivation for Carbonâ€Based Printable Mesoscopic Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	3.7	9
1165	Multifunctional Organic Additive for Improving the Open Circuit Voltage of Perovskite Solar Cells. Solar Rrl, 0, , .	5.8	5
1166	A Doped Hole Transport Layer Qualified for 100°Câ€Tolerant Perovskite Solar Cells. Advanced Optical Materials, 0, , 2200515.	7.3	0
1167	Multifunctional and Transformative Metaphotonics with Emerging Materials. Chemical Reviews, 2022, 122, 15414-15449.	47.7	23
1168	Multiaxial Molecular Ferroelectrics with a Large Viable Temperature Range. Chemistry of Materials, 2022, 34, 4479-4485.	6.7	15
1169	Nanoscale Encapsulation of Hybrid Perovskites Using Hybrid Atomic Layer Deposition. Journal of Physical Chemistry Letters, 2022, 13, 4082-4089.	4.6	5
1170	Cs4PbBr6@PDMS film prepared by a facile two-step method for wide color gamut backlit display. Applied Surface Science, 2022, 596, 153568.	6.1	2
1171	Lowing the energy loss of organic solar cells by molecular packing engineering via multiple molecular conjugation extension. Science China Chemistry, 2022, 65, 1362-1373.	8.2	79
1172	Improved Stability of FAPbI ₃ -Based Mixed-Cation Perovskite Solar Cells Fabricated Using Facile Cation Injection Technology. IEEE Photonics Journal, 2022, 14, 1-7.	2.0	1
1173	Active phase stabilization and photovoltaic performance improvement in mixed-cation formamidinium cesium lead iodide via dimensional engineering with 5-ammonium valeric acid bromide. Sustainable Materials and Technologies, 2022, 32, e00438.	3.3	2
1174	A fully printed organic-inorganic metal halide perovskite photocathode for photoelectrochemical reduction of Cr(VI) in aqueous solution. Inorganic Chemistry Communication, 2022, 141, 109499.	3.9	0
1175	Mitigating interfacial and bulk defects via chlorine modulation for HTL-free all-inorganic CsPbI2Br carbon-based perovskite solar cells with efficiency over 14%. Chemical Engineering Journal, 2022, 445, 136781.	12.7	24
1176	Minimizing voltage deficit in Methylammonium-Free perovskite solar cells via surface reconstruction. Chemical Engineering Journal, 2022, 444, 136622.	12.7	22
1177	Recent development in MOFs for perovskite-based solar cells. , 2022, , 507-534.		1
1178	Halogen substitution assisted modification on phase transition point and band gap of (DBU) PbX3 (X =) Tj ETQc	0 0 0 rgBT	· /Overlock 10

1179	Analytical Review of Spiroâ€OMeTAD Hole Transport Materials: Paths Toward Stable and Efficient Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2022, 3, .	5.8	53
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#	Article	IF	CITATIONS
1180	Recent advancement in perovskite solar cell with imidazole additive. Materials Science in Semiconductor Processing, 2022, 148, 106788.	4.0	7
1181	Performance improvement of dye-sensitized double perovskite solar cells by adding Ti3C2T MXene. Chemical Engineering Journal, 2022, 446, 136963.	12.7	37
1182	Yb-doped SnO ₂ electron transfer layer assisting the fabrication of high-efficiency and stable perovskite solar cells in air. RSC Advances, 2022, 12, 14631-14638.	3.6	3
1183	Tunable and Large Magnetoâ€Photoluminescence for Singleâ€Crystalline Chiral Perovskites. Advanced Optical Materials, 2022, 10, .	7.3	11
1184	Atomic Layer Engineering of Aluminumâ€Đoped Zinc Oxide Films for Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	3.7	16
1185	Performance Improvement of Perovskite Solar Cells by Interactions between Nanoâ€Sized Quantum Dots and Perovskite. Advanced Functional Materials, 2022, 32, .	14.9	10
1186	Double inorganic hole extraction layer of Cs: <scp> NiO _x </scp> / <scp> CuInS ₂ </scp> for efficiency and stability enhancement of perovskite solar cells. International Journal of Energy Research, 0, , .	4.5	0
1187	A Perspective on Perovskite Solar Cells: Emergence, Progress, and Commercialization. Frontiers in Chemistry, 2022, 10, 802890.	3.6	14
1188	Tin-based halide perovskite materials: properties and applications. Chemical Science, 2022, 13, 6766-6781.	7.4	31
1189	Exploration of charge transport materials to improve the radiation tolerance of lead halide perovskite solar cells. Materials Advances, 2022, 3, 4861-4869.	5.4	4
1190	Manganese Dopant-Induced Isoelectric Point Tuning of ZnO Electron Selective Layer Enable Improved Interface Stability in Cesium–Formamidinium-Based Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 6671-6686.	5.1	10
1191	Achieving Up-Conversion Amplified Spontaneous Emission through Spin Alignment between Coherent Light-Emitting Excitons in Perovskite Microstructures. Photonics, 2022, 9, 353.	2.0	Ο
1192	Facile synthesis of KaCs1â^'aPbBr3@ molecular sieve SBA-15 composite with improved luminescence and wet/thermal stability. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 648, 129258.	4.7	2
1193	Long term stability assessment of perovskite solar cell via recycling of metal contacts under ambient conditions. Materials Letters, 2022, 322, 132490.	2.6	4
1194	Degradation conceptualization of an innovative perovskite solar cell fabricated using SnO2 and P3HT as electron and hole transport layers. New Journal of Chemistry, 0, , .	2.8	1
1195	First Principles Calculation and Experimental Verification of the Effect of Li+ Doping on Photoelectric Properties of Double Perovskite Cs2sni6. SSRN Electronic Journal, 0, , .	0.4	Ο
1196	Stability investigation of the titanium-based eco-friendly perovskite-like antifluorite Cs ₂ TiBr ₆ . Journal of Materials Chemistry C, 2022, 10, 9301-9309.	5.5	6
1197	A Method for the Room Temperature Synthesis of High-Quality Single Phase Cspbbr3 Perovskite Single Crystals. SSRN Electronic Journal, 0, , .	0.4	0

#	Article	IF	CITATIONS
1198	Electronic structure of oxide and halide perovskites. , 2022, , .		0
1199	Tunable Photovoltaics: Adapting Solar Cell Technologies to Versatile Applications. Advanced Energy Materials, 2022, 12, .	19.5	27
1201	Investigating the potential of leadâ€free double perovskite <scp> Cs ₂ AgBiBr ₆ Material for solar cell applications: A theoretical study. International Journal of Energy Research, 2022, 46, 13801-13819.</scp>	4.5	21
1202	Refined GFN1-xTB Parameters for Engineering Phase-Stable CsPbX ₃ Perovskites. Journal of Physical Chemistry C, 2022, 126, 9587-9596.	3.1	2
1203	Drop asting Halide Microcrystals Enabled by Green Glycol Solvent for Highâ€Performance Photodetectors. Advanced Photonics Research, 2022, 3, .	3.6	1
1204	Ultrafast transient infrared spectroscopy for probing trapping states in hybrid perovskite films. Communications Chemistry, 2022, 5, .	4.5	14
1205	An Innovative Anode Interface Combination for Perovskite Solar Cells with Improved Efficiency, Stability, and Reproducibility. Solar Rrl, 2022, 6, .	5.8	3
1206	Remote epitaxy. Nature Reviews Methods Primers, 2022, 2, .	21.2	47
1207	Effect of the in situ addition of chromate ions on H2 evolution during the photocatalytic conversion of CO2 using H2O as the electron donor. Catalysis Today, 2023, 410, 273-281.	4.4	1
1208	Asymptotic analysis of subwavelength halide perovskite resonators. SN Partial Differential Equations and Applications, 2022, 3, .	0.6	2
1209	Self-assembly of perovskite nanocrystals. Progress in Materials Science, 2022, 129, 100975.	32.8	25
1210	Quantum hybridization negative differential resistance from non-toxic halide perovskite nanowire heterojunctions and its strain control. Nano Convergence, 2022, 9, .	12.1	6
1211	The Landé factors of electrons and holes in lead halide perovskites: universal dependence on the band gap. Nature Communications, 2022, 13, .	12.8	28
1212	Perovskite Solar Cells Challenging the Top of Photovoltaics. Denki Kagaku, 2022, 90, 88-93.	0.0	0
1213	Crystalline structures and optoelectronic properties of orthorhombic CsPbBr3 polycrystalline films grown by the Co-evaporation method. Vacuum, 2022, 202, 111219.	3.5	4
1214	D-ï€-D hole transport materials based on dioctylfluorene for highly efficient and stable perovskite solar cells without pre-oxidation. Dyes and Pigments, 2022, 204, 110452.	3.7	6
1215	Solution-Processed Quantum-Dot Solar Cells. Springer Handbooks, 2022, , 1215-1266.	0.6	2
1216	Mixed dimensionality of 2D/3D heterojunctions for improving charge transport and long-term stability in high-efficiency 1.63 eV bandgap perovskite solar cells. Materials Advances, 2022, 3, 5786-5795.	5.4	1

#	Article	IF	CITATIONS
1218	The high open-circuit voltage of perovskite solar cells: a review. Energy and Environmental Science, 2022, 15, 3171-3222.	30.8	181
1219	Morphology and temperature dependence of a dual excitonic emissive 2D bromoplumbate hybrid perovskite: the key role of crystal edges. Journal of Materials Chemistry C, 2022, 10, 10284-10291.	5.5	2
1221	Perovskite- and Dye-Sensitized Solar-Cell Device Databases Auto-generated Using ChemDataExtractor. Scientific Data, 2022, 9, .	5.3	24
1222	Perovskite Phase Analysis by SEM Facilitating Efficient Quasiâ€2D Perovskite Lightâ€Emitting Device Designs. Advanced Optical Materials, 2022, 10, .	7.3	6
1223	Engineering van der Waals Materials for Advanced Metaphotonics. Chemical Reviews, 2022, 122, 15204-15355.	47.7	33
1224	Sodium Diffuses from Glass Substrates through <scp>P1</scp> Lines and Passivates Defects in Perovskite Solar Modules. Energy and Environmental Materials, 2023, 6, .	12.8	1
1225	Dibenzoâ€18â€crownâ€6â€assisted inhibition of cationâ€migration for stable perovskite solar cells. Solar Rrl, 0, , .	5.8	3
1226	Polymerâ€Assisted Crystal Growth Regulation and Defect Passivation for Efficient Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2022, 32, .	14.9	30
1227	Triphenylamine-based organic small-molecule interlayer materials for inverted perovskite solar cells. Organic Electronics, 2022, 108, 106595.	2.6	4
1229	A Smart Way to Prepare Solutionâ€Processed and Annealingâ€free PCBM Electron Transporting Layer for Perovskite Solar Cells. Advanced Sustainable Systems, 2022, 6, .	5.3	13
1230	Post-synthesis Treatment with Lead Bromide for Obtaining Near-Unity Photoluminescence Quantum Yield and Ultra-stable Amine-Free CsPbBr ₃ Perovskite Nanocrystals. Journal of Physical Chemistry C, 2022, 126, 10742-10751.	3.1	16
1231	Zero- and One-Dimensional Lead-Free Perovskites for Photoelectrochemical Applications. ACS Applied Materials & Interfaces, 2022, 14, 29735-29743.	8.0	12
1232	Studying VOC in lead free inorganic perovskite photovoltaics by tuning energy bandgap and defect density. Ceramics International, 2022, 48, 29414-29420.	4.8	13
1233	Band Edge Engineering of 2D Perovskite Structures through Spacer Cation Engineering for Solar Cell Applications. Journal of Physical Chemistry C, 2022, 126, 9937-9947.	3.1	6
1234	Dimensionalityâ€Dependent Resistive Switching in 0D and 2D Cs ₃ Sb ₂ I ₉ : Energyâ€Efficient Synaptic Functions with the Layeredâ€Phase. Advanced Electronic Materials, 2022, 8, .	5.1	6
1235	All-dielectric resonant metaphotonics: opinion. Optical Materials Express, 2022, 12, 2879.	3.0	6
1236	Raman spectroscopy in layered hybrid organic-inorganic metal halide perovskites. JPhys Materials, 2022, 5, 034004.	4.2	7
1237	Properties of AgBil4 using high through-put DFT and machine learning methods. Journal of Applied Physics, 2022, 131, .	2.5	8

	CHATION R	EPORT	
#	Article	IF	CITATIONS
1238	Formamidinium Lead Halide Perovskite Nanocomposite Scintillators. Nanomaterials, 2022, 12, 2141.	4.1	12
1239	Catalytic and pseudocapacitive energy storage performance of metal (Co, Ni, Cu and Mn) ferrite nanostructures and nanocomposites. Progress in Materials Science, 2022, 130, 100995.	32.8	25
1240	Recent Progress in Mixed Aâ€Site Cation Halide Perovskite Thinâ€Films and Nanocrystals for Solar Cells and Lightâ€Emitting Diodes. Advanced Optical Materials, 2022, 10, .	7.3	47
1241	Temperature-induced structural transition in an organic–inorganic hybrid layered perovskite (MA) ₂ Pbl _{2â°'<i>x</i>} Br _{<i>x</i>} (SCN) ₂ . CrystEngComm, 2022, 24, 5428-5434.	2.6	1
1242	CH ₃ NH ₃ PbI ₃ Perovskite Nanorods Saturable Absorber for Stable Ultra-Fast Laser. IEEE Photonics Journal, 2022, 14, 1-6.	2.0	10
1243	Precise design and preparation of two 3D organic–inorganic perovskite ferroelectrics (1,5-diazabicyclo[3.2.2]nonane)RbX ₃ (X = Br, I). Chemical Communications, 2022, 58, 9254-9257.	4.1	8
1244	Physical mechanism of perovskite solar cell based on double electron transport layer. Wuli Xuebao/Acta Physica Sinica, 2022, 71, 208802.	0.5	1
1245	Enhanced Charge Transport <i>via</i> Mixed-Dimensional Heterostructures in 2D–3D Perovskites and Their Relevance to Solar Cells. ACS Applied Energy Materials, 2022, 5, 7965-7976.	5.1	7
1246	Synthesis and Characterization of (FA) ₃ (HEA) ₂ Pb ₃ I ₁₁ : A Rare Example of <1 1 0>-Oriented Multilayered Halide Perovskites. Chemistry of Materials, 2022, 34, 5780-5790.	6.7	2
1247	Optical Modelling of Planar and Fibre Perovskite Solar Cells. Electronics (Switzerland), 2022, 11, 2041.	3.1	3
1248	Organic Holeâ€Transport Layers for Efficient, Stable, and Scalable Inverted Perovskite Solar Cells. Advanced Materials, 2022, 34, .	21.0	107
1249	Hybrid Organic–Inorganic Perovskite Semiconductor-Based High-Flux Neutron Detector with BN Converter. ACS Applied Electronic Materials, 2022, 4, 3411-3420.	4.3	4
1250	Materials for evaporationâ€driven hydrovoltaic technology. , 2022, 1, 449-470.		16
1251	Double‣ayer Quantum Dots as Interfacial Layer to Enhance the Performance of CsPbI ₃ Solar Cells. Advanced Materials Interfaces, 0, , 2200813.	3.7	3
1252	Effect of Li+ Doping on Photoelectric Properties of Double Perovskite Cs2SnI6: First Principles Calculation and Experimental Investigation. Nanomaterials, 2022, 12, 2279.	4.1	2
1253	Review on Perovskite Semiconductor Field–Effect Transistors and Their Applications. Nanomaterials, 2022, 12, 2396.	4.1	14
1254	Customizing a coordinative crab molecule BCPâ€3N with multifunctionality for highâ€performance inverted perovskite solar cells. Solar Rrl, 0, , .	5.8	1
1255	Stability of perovskite materials and devices. Materials Today, 2022, 58, 275-296.	14.2	35

#	Article	IF	CITATIONS
1256	Solution Processable Direct Bandgap Copperâ€Silverâ€Bismuth Iodide Photovoltaics: Compositional Control of Dimensionality and Optoelectronic Properties. Advanced Energy Materials, 2022, 12, .	19.5	17
1257	Defect Passivation by a Multifunctional Phosphate Additive toward Improvements of Efficiency and Stability of Perovskite Solar Cells. ACS Applied Materials & amp; Interfaces, 2022, 14, 31911-31919.	8.0	6
1258	Solventâ€Free Preparation and Moderate Congruent Melting Temperature of Layered Lead Iodide Perovskites for Thinâ€Film Formation. Angewandte Chemie - International Edition, 0, , .	13.8	3
1259	Atomistic Mechanism of Surface-Defect Passivation: Toward Stable and Efficient Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2022, 13, 6686-6693.	4.6	12
1260	Solventâ€Free Preparation and Moderate Congruent Melting Temperature of Layered Lead Iodide Perovskites for Thinâ€Film Formation. Angewandte Chemie, 0, , .	2.0	1
1261	Asymmetrical Single Crystals Containing Tilted Ruddlesden–Popper Phases for Efficient Perovskite Solar Cells. Solar Rrl, 0, , 2200562.	5.8	2
1262	Activating photocatalytic hydrogen generation on inorganic lead-free Cs2AgBiBr6 perovskite via reversible Cu2+/Cu+ redox couple. Journal of Catalysis, 2022, 413, 509-516.	6.2	9
1263	Room-temperature cost-effective in-situ grown MAPbBr3 crystals and their characterization towards optoelectronic devices. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 283, 115840.	3.5	4
1264	Hydrogen bonding drives the self-assembling of carbazole-based hole-transport material for enhanced efficiency and stability of perovskite solar cells. Nano Energy, 2022, 101, 107604.	16.0	16
1265	Enhanced efficiency, photocurrent and device stabilities of guanidinium chloride-based double cation mixed halide perovskite solar cells fabricated under humid conditions. Materials Science in Semiconductor Processing, 2022, 149, 106880.	4.0	3
1266	The influence of N-based group doping on surface potential of TiO2 electron transport layer prepared by Sol-gel and sputtering techniques. Materials Letters, 2022, 325, 132842.	2.6	0
1267	Recent defect passivation drifts and role of additive engineering in perovskite photovoltaics. Nano Energy, 2022, 101, 107579.	16.0	46
1268	Unveiling passivation roles of PEA+ in CsPbI2Br surface. Chemical Physics, 2022, 562, 111651.	1.9	2
1269	Improving inorganic perovskite photovoltaic performance via organic cation addition for efficient solar energy utilization. Energy, 2022, 257, 124640.	8.8	8
1270	Analysis of structural, elastic and optoelectronic properties of indium-based halide perovskites InACl3 (A = Ge, Sn, Pb) using density functional theory. Materials Science in Semiconductor Processing, 2022, 150, 106973.	4.0	11
1271	Identifying dominant recombination mechanisms in spiro-based conventional perovskite solar cells: Roles of interface and bulk recombination. Energy Reports, 2022, 8, 7957-7963.	5.1	5
1272	Photocatalyst-Incorporated Cross-Linked Porous Polymer Networks. Industrial & Engineering Chemistry Research, 2022, 61, 10616-10630.	3.7	7
1273	Hierarchical Symbolic Regression for Identifying Key Physical Parameters Correlated with Bulk Properties of Perovskites. Physical Review Letters, 2022, 129, .	7.8	7

#	Article	IF	CITATIONS
1274	Multifunctional Flexible Humidity Sensor Systems Towards Noncontact Wearable Electronics. Nano-Micro Letters, 2022, 14, .	27.0	91
1275	Recent Development of Quantum Dot Deposition in Quantum Dot-Sensitized Solar Cells. Transactions of Tianjin University, 2022, 28, 374-384.	6.4	1
1276	Toward the Integration of a Silicon/Graphite Anode-Based Lithium-Ion Battery in Photovoltaic Charging Battery Systems. ACS Omega, 2022, 7, 27532-27541.	3.5	2
1277	Recent progress in use of MXene in perovskite solar cells: for interfacial modification, work-function tuning and additive engineering. Nanoscale, 2022, 14, 13018-13039.	5.6	22
1278	Surface-Passivated Single-Crystal Micro-Plates for Efficient Perovskite Solar Cells. Processes, 2022, 10, 1477.	2.8	4
1279	Irreversible phase transitions of the multiferroic oxide Mn ₃ TeO ₆ at high pressures. Applied Physics Letters, 2022, 121, 044102.	3.3	0
1280	Tuning the Band Gap in the Halide Perovskite CsPbBr ₃ through Sr Substitution. ACS Applied Materials & Interfaces, 2022, 14, 34884-34890.	8.0	11
1281	Redâ€Emitting Perovskite Variant Cs ₂ PtCl ₆ Phosphor: Material Design, Luminous Mechanism, and Application in Highâ€Colorâ€Rendering White Lightâ€Emitting Diodes. Advanced Optical Materials, 2022, 10, .	7.3	15
1282	Rudorffites and Beyond: Perovskiteâ€Inspired Silver/Copper Pnictohalides for Nextâ€Generation Environmentally Friendly Photovoltaics and Optoelectronics. Advanced Functional Materials, 2022, 32, .	14.9	23
1283	Revealing the Variation of Photodetectivity in MAPbl ₃ and MAPb(I _{0.88} Br _{0.12}) ₃ Single Crystal Based Photodetectors Under Electrical Poling-Induced Polarization. Journal of Physical Chemistry C, 2022, 126, 13458-13466.	3.1	11
1284	Printable Lowâ€Temperature Carbon for Highly Efficient and Stable Mesoscopic Perovskite Solar Cells. Energy Technology, 2022, 10, .	3.8	2
1285	CsCu ₂ I ₃ Nanoparticles Incorporated within a Mesoporous Metal–Organic Porphyrin Framework as a Catalyst for One-Pot Click Cycloaddition and Oxidation/Knoevenagel Tandem Reaction. ACS Applied Materials & Interfaces, 2022, 14, 36515-36526.	8.0	16
1286	Enhanced Bending Resistance and Efficiency of Flexible PSCs Derived from Selfâ€Healing and Passivation Double Function of a Silane Coupling Agent. Advanced Materials Interfaces, 2022, 9, .	3.7	3
1287	Synergistic Optimization in a 0.90BaTiO ₃ –0.08Bi(Ni _{0.5} Zr _{0.5})O ₃ –0.02BiFeO _{3<!--<br-->Thin Film with High Breakdown Strength and Energy Density. ACS Sustainable Chemistry and Engineering, 2022, 10, 11041-11049.}	sub> 6.7	3
1288	Impact of Holeâ€Transport Layer and Interface Passivation on Halide Segregation in Mixedâ€Halide Perovskites. Advanced Functional Materials, 2022, 32, .	14.9	11
1289	A Hole Transport Layerâ€Free, More Thermally Stable, Selfâ€Powered CH ₃ NH ₃ PbBr ₃ â€Based Multiband Imaging Photodetector with Novel Topological Insulator Bi ₂ Te ₃ Electrodes. Advanced Optical Materials, 2022, 10	7.3	5
1290	Lead Halide perovskite based plastic scintillators for alpha particle detection. Materials Today Communications, 2022, 33, 104303.	1.9	2
1291	Recent Advances in CsPb <i>X</i> ₃ Perovskite Solar Cells: Focus on Crystallization Characteristics and Controlling Strategies. Advanced Energy Materials, 2023, 13, .	19.5	27

#	Article	IF	Citations
1292	Surface regulation by bifunctional BODIPY to fabricate stable CsPbBr3 for multi-layered optical anti-counterfeiting. Journal of Colloid and Interface Science, 2023, 629, 63-72.	9.4	8
1294	Simultaneous Chemical Crosslinking of SnO ₂ and Perovskite for Highâ€Performance Planar Perovskite Solar Cells with Minimized Lead Leakage. Solar Rrl, 2022, 6, .	5.8	13
1295	Tryptaminium Iodide as an Additive of Isopropanol Green Antisolvent for Efficient and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 9520-9529.	5.1	9
1296	Surface ion exchange and targeted passivation with cesium fluoride for enhancing the efficiency and stability of perovskite solar cells. Applied Physics Letters, 2022, 121, .	3.3	10
1297	Quantum confinement in chalcogenides 2D nanostructures from first principles. Journal of Physics Condensed Matter, 2022, 34, 405301.	1.8	1
1298	The influence of A-site dipole moment on iodine migration in perovskite films revealed by transient ion drift. Applied Physics Letters, 2022, 121, .	3.3	1
1299	Machine learning-facilitated multiscale imaging for energy materials. Cell Reports Physical Science, 2022, 3, 101008.	5.6	4
1300	Effects of Electronic Coupling on Bright and Dark Excitons in a 2D Array of Strongly Confined CsPbBr ₃ Quantum Dots. Chemistry of Materials, 2022, 34, 7181-7189.	6.7	6
1301	Improved performance study of monolithic all perovskite tandem solar cell in nip and pin structure. Materials Today: Proceedings, 2022, 66, 3392-3396.	1.8	5
1302	Boosting the Upconversion and Nearâ€Infrared Emission via Alloying Bi ³⁺ in Cs ₂ NaErCl ₆ Double Perovskite. Laser and Photonics Reviews, 2022, 16, .	8.7	18
1303	Comparative Analysis and Performance Optimization of Low-Cost Solution-Processed Hybrid Perovskite-Based Solar Cells With Different Organic HTLs. IEEE Transactions on Electron Devices, 2022, 69, 5012-5020.	3.0	6
1304	Effect of out-gassing from polymeric encapsulant materials on the lifetime of perovskite solar cells. Solar Energy Materials and Solar Cells, 2022, 246, 111887.	6.2	3
1305	Halogen tuning toward dielectric switch and band gap engineering in one-dimensional hybrid materials. Journal of Molecular Structure, 2022, 1270, 133954.	3.6	4
1306	Probing Chemical-Composition-Induced Heterostructures and Interfaces in Lead Halide Perovskites. Langmuir, 2022, 38, 12103-12117.	3.5	2
1307	Towards market commercialization: Lifecycle economic and environmental evaluation of scalable perovskite solar cells. Progress in Photovoltaics: Research and Applications, 2023, 31, 180-194.	8.1	8
1308	Comparative performance analysis of photo-supercapacitor based on silicon, dye-sensitized and perovskite solar cells: Towards indoor applications. Solar Energy Materials and Solar Cells, 2022, 247, 111966.	6.2	5
1309	Improving the performance of perovskite solar cells via TiO2 electron transport layer prepared by direct current pulsed magnetron sputtering. Journal of Alloys and Compounds, 2022, 929, 167278.	5.5	6
1310	A full range of defect passivation strategy targeting efficient and stable planar perovskite solar cells. Chemical Engineering Journal, 2023, 451, 138800.	12.7	13

#	Article	IF	Citations
1311	Graphene induced structure and doping level tuning of evaporated CsPbBr3 on different substrates. Chemical Engineering Journal, 2023, 452, 139243.	12.7	1
1312	Eu3+ Doped Cspbcl2br1 Nanocrystals Glass for Enhanced the Ultraviolet Response of Si Photodetectors. SSRN Electronic Journal, 0, , .	0.4	0
1313	How the ionic liquid BMIMBF ₄ influences the formation and optoelectronic properties of MAPbI ₃ thin films. Journal of Materials Chemistry A, 2022, 10, 18038-18049.	10.3	4
1314	Atomic layer deposition of PbCl ₂ , PbBr ₂ and mixed lead halide (Cl, Br, I) PbX _{<i>n</i>} Y _{2â^'<i>n</i>} thin films. Dalton Transactions, 0, , .	3.3	0
1315	Ligand-flexible synthesis of strongly confined perovskite nanocrystals: a microwave synthetic approach. Nanoscale, 2022, 14, 15789-15798.	5.6	3
1316	Ultrasonic-assisted fabrication of Cs2AgBiBr6/Bi2WO6 S-scheme heterojunction for photocatalytic CO2 reduction under visible light. Chinese Journal of Catalysis, 2022, 43, 2606-2614.	14.0	27
1317	Inhibiting the decomposition of methylammonium using cations with low deprotonation energy. Journal of Materials Chemistry A, 2022, 10, 22742-22749.	10.3	3
1318	Revisiting the origin of green emission in Cs ₄ PbBr ₆ . Materials Advances, 2022, 3, 6791-6798.	5.4	2
1319	Enhanced emission efficiency in doped CsPbBr ₃ perovskite nanocrystals: the role of ion valence. Journal of Materials Chemistry C, 2022, 10, 14737-14745.	5.5	2
1320	Strain Regulating Mechanical Stability and Photoelectric Properties of Ch3nh3pbi3 Containing the Asymmetric Ch3nh3 Cations. SSRN Electronic Journal, 0, , .	0.4	0
1321	Spiers Memorial Lecture: Next generation chalcogenide-based absorbers for thin-film solar cells. Faraday Discussions, 0, 239, 9-37.	3.2	10
1322	A new organic–inorganic hybrid perovskite ferroelectric [CICH ₂ CH ₂ N(CH ₃) ₃][PbBr ₃] and Its PVDF matrix-assisted highly-oriented flexible ferroelectric films. New Journal of Chemistry, 2022, 46, 19391-19400.	2.8	3
1323	Photo-enhanced growth of lead halide perovskite crystals and their electro-optical properties. RSC Advances, 2022, 12, 27775-27780.	3.6	1
1324	Anti-perovskite carbides Ca ₆ CSe ₄ and Sr ₆ CSe ₄ for photovoltaics with similar optoelectronic properties to MAPbI ₃ . Journal of Materials Chemistry A, 2022, 10, 21540-21550.	10.3	3
1325	Perovskite solar cells from the viewpoint of innovation and sustainability. Physical Chemistry Chemical Physics, 2022, 24, 21549-21566.	2.8	7
1326	Emerging Metal-Halide Perovskite Materials for Enhanced Solar Cells and Light-Emitting Applications. Engineering Materials, 2022, , 45-85.	0.6	1
1327	[SMe ₃] ₂ [Bi ₂ Ag ₂ I ₁₀], a silver iodido bismuthate with an unusually small band gap. Dalton Transactions, 2022, 51, 13771-13778.	3.3	5
1328	Decreasing toxicity and increasing photoconversion efficiency by Sn-substitution of Pb in 5-ammonium valeric acid-based two-dimensional hybrid perovskite materials. Physical Chemistry Chemical Physics, 2022, 24, 23226-23235.	2.8	3

#	Article	IF	CITATIONS
1329	The mechanical behavior of metal-halide perovskites: Elasticity, plasticity, fracture, and creep. Scripta Materialia, 2023, 223, 115064.	5.2	7
1330	Recent Advances in Ferroelectric Materials-Based Photoelectrochemical Reaction. Nanomaterials, 2022, 12, 3026.	4.1	5
1331	First-Principles Study of Cu-Based Inorganic Hole Transport Materials for Solar Cell Applications. Materials, 2022, 15, 5703.	2.9	1
1332	Domain Size, Temperature, and Time Dependence of Photodegradation in MAPbI ₃ Probed by Raman Spectroscopy. ACS Energy Letters, 2022, 7, 3095-3103.	17.4	7
1333	Contact property depending on radiation intensity between the perovskite semiconductor layer and electrode film. Applied Physics Letters, 2022, 121, 121601.	3.3	0
1334	Antisolvent Treatment on Wet Solutionâ€Processed CuSCN Hole Transport Layer Enables Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	3.7	6
1335	Moistureâ€Accelerated Precursor Crystallisation in Ambient Air for Highâ€Performance Perovskite Solar Cells toward Mass Production. Angewandte Chemie, 2022, 134, .	2.0	2
1336	Role of A‣ite Composition in Charge Transport in Lead Iodide Perovskites. Advanced Energy and Sustainability Research, 2022, 3, .	5.8	3
1337	Mitigating Potential Lead Leakage Risk of Perovskite Solar Cells by Device Architecture Engineering from Exterior to Interior. ACS Energy Letters, 2022, 7, 3618-3636.	17.4	13
1338	Comparative architecture in monolithic perovskite/silicon tandem solar cells. Science China: Physics, Mechanics and Astronomy, 2023, 66, .	5.1	3
1339	Dualâ€Interfaceâ€Reinforced Flexible Perovskite Solar Cells for Enhanced Performance and Mechanical Reliability. Advanced Materials, 2022, 34, .	21.0	32
1340	Formation of a nanoporous <scp> PbI ₂ </scp> layer framework via <scp>4â€tBP</scp> additive to improve the performance and stability of twoâ€step prepared hybrid perovskite solar cells under ambient conditions. International Journal of Energy Research, 2022, 46, 23133-23144.	4.5	2
1341	Moistureâ€Accelerated Precursor Crystallisation in Ambient Air for Highâ€Performance Perovskite Solar Cells toward Mass Production. Angewandte Chemie - International Edition, 2022, 61, .	13.8	15
1342	Stabilization of Perovskite Solar Cells: Recent Developments and Future Perspectives. Advanced Materials, 2022, 34, .	21.0	67
1343	Jahnâ^'Teller Distortion-Stabilized Halide Double Perovskites with Unusual Rock-Salt-type Ordering of Divalent B-Site Cations. Chemistry of Materials, 2022, 34, 8207-8212.	6.7	5
1344	Methylammonium lead iodide/poly(methyl methacrylate) nanocomposite films for photocatalytic applications. Materials Chemistry and Physics, 2023, 293, 126811.	4.0	10
1345	Adsorption Energy in Oxygen Electrocatalysis. Chemical Reviews, 2022, 122, 17028-17072.	47.7	45
1346	Micro- and nano-sized materials for solar evaporators:a review. EPJ Applied Physics, 0, , .	0.7	0

#	Article	IF	CITATIONS
1347	Highâ€Performance Perovskite Photovoltaics by Heterovalent Substituted Mixed Perovskites. Advanced Functional Materials, 2022, 32, .	14.9	8
1348	[Methylhydrazinium] ₂ PbCl ₄ , a Two-Dimensional Perovskite with Polar and Modulated Phases. Inorganic Chemistry, 2022, 61, 15520-15531.	4.0	11
1349	Fluorination of Carbazole-Based Polymeric Hole-Transporting Material Improves Device Performance of Perovskite Solar Cells with Fill Factor up to 82%. ACS Applied Energy Materials, 2022, 5, 12049-12058.	5.1	5
1350	Band structures in orientation-controlled CuI thin films under epitaxial strain. Physical Review B, 2022, 106, .	3.2	4
1351	Scintillation properties of ((CH ₃) ₄ N) ₃ BiCl ₆ as a novel lead-free perovskite halide crystal. Materials Research Express, 2022, 9, 096202.	1.6	3
1352	Advances and challenges in understanding the microscopic structure–property–performance relationship in perovskite solar cells. Nature Energy, 2022, 7, 794-807.	39.5	89
1353	Water engineering in lead free CsCu2I3 perovskite for high performance planar heterojunction photodetector applications. Ceramics International, 2023, 49, 1970-1979.	4.8	7
1354	Firstâ€principles study on structural, electronic, elastic, mechanical, thermodynamic, and thermoelectric properties of <scp> RbSnX ₃ </scp> (XÂ=ÂF, Cl, and Br) perovskites. International Journal of Energy Research, 2022, 46, 23893-23907.	4.5	13
1355	Improvement Strategies for Stability and Efficiency of Perovskite Solar Cells. Nanomaterials, 2022, 12, 3295.	4.1	11
1356	Phase Sensitivity of All-Inorganic Lead Halide Perovskite Nanocrystals. , 2022, 4, 2106-2124.		5
1357	Switchable Dielectric Two-Dimensional Lead-Free Perovskite with Reversible Thermochromic Response. Journal of Physical Chemistry C, 2022, 126, 16437-16446.	3.1	11
1358	Addressing the stability challenge of metal halide perovskite based photocatalysts for solar fuel production. JPhys Energy, 2022, 4, 042005.	5.3	2
1359	Presynthetic Redox Gated Metal-to-Insulator Transition and Photothermoelectric Properties in Nickel Tetrathiafulvalene-Tetrathiolate Coordination Polymers. Journal of the American Chemical Society, 2022, 144, 19026-19037.	13.7	9
1360	Organic Ligandâ€Free ZnO Quantum Dots for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	14.9	17
1361	Establishing Family Relations in Group 15 Halogenido Metalates with the Largest Molecular Antimony Iodide Anion. Chemistry - A European Journal, 2023, 29, .	3.3	6
1362	Pressure-induced phase transitions of CsSnBr ₃ perovskite from first-principles calculations. Physica Scripta, 2022, 97, 115811.	2.5	1
1363	Amine-Free Synthetic Route: An Emerging Approach to Making High-Quality Perovskite Nanocrystals for Futuristic Applications. Journal of Physical Chemistry Letters, 2022, 13, 9480-9493.	4.6	9
1364	[PPh ₃ H] ₂ [SbCl ₅]: A Zero-Dimensional Hybrid Metal Halide with a Supramolecular Framework and Stable Dual-Band Emission. Journal of Physical Chemistry C, 2022, 126, 17381-17389.	3.1	11

#	Article	IF	CITATIONS
1365	Defect passivation and electrical conductivity enhancement in perovskite solar cells using functionalized graphene quantum dots. Materials Futures, 2022, 1, 045101.	8.4	20
1366	Dopantâ€Free Bithiopheneâ€Imideâ€Based Polymeric Holeâ€Transporting Materials for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2022, 34, .	21.0	37
1367	Toward Stable and Efficient Solar Cells with Electropolymerized Films. ACS Sustainable Chemistry and Engineering, 2022, 10, 13555-13567.	6.7	4
1368	All-perovskite two-terminal tandem solar cell with 32.3% efficiency by numerical simulation. Materials Today Sustainability, 2022, 20, 100241.	4.1	10
1369	Strain regulating mechanical stability and photoelectric properties of CH3NH3PbI3 containing the asymmetric CH3NH3 cations. Materials Today Communications, 2022, 33, 104527.	1.9	1
1370	In-situ surface patch-passivation via phosphorus oxygen bond for efficient PbS colloidal quantum dot infrared solar cells. Solar Energy Materials and Solar Cells, 2022, 248, 112040.	6.2	2
1371	Device Fabrication Knowledge Extraction from Materials Science Literature. Proceedings of the AAAI Conference on Artificial Intelligence, 2021, 35, 15416-15423.	4.9	1
1372	A practical guide to 3D halide perovskites: Structure, synthesis, and measurement. , 2022, , .		0
1373	A halogen bonding assembled hybrid copper halide framework as a promising hypotoxicity photodetector. Inorganic Chemistry Frontiers, 2022, 9, 6510-6516.	6.0	3
1374	Functionalized Rare-Earth Metal Cluster-Based Materials as Additives for Enhancing the Efficiency of Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 13318-13326.	5.1	10
1375	Blade Coating Highâ€Quality Formamidinium–Cesium Lead Halide Perovskites with Green Solvent for Efficient and Stable Solar Cells. Solar Rrl, 2022, 6, .	5.8	3
1376	Chemical conversion of electrodeposited PbO2 to the all-inorganic cesium lead halide perovskites CsPbBr3 and CsPbCl3. Electrochemistry Communications, 2022, 143, 107381.	4.7	1
1377	Effect of 1,3-Disubstituted Urea Derivatives as Additives on the Efficiency and Stability of Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 13617-13626.	5.1	8
1378	[(4AMTP)PbBr ₂] ₂ PbBr ₄ : a Nontypical Cation-Coordinated Perovskite Showing Deep-Blue Emissions and Blue-Light Photoelectric Response. Inorganic Chemistry, 2022, 61, 17738-17745.	4.0	5
1379	Perfluoroarenes: A Versatile Platform for Hybrid Perovskite Photovoltaics. Journal of Physical Chemistry Letters, 2022, 13, 9869-9874.	4.6	2
1380	Developing Thermal Regulating and Electromagnetic Shielding Nacre-Inspired Graphene-Conjugated Conducting Polymer Film via Apparent Wiedemann–Franz Law. ACS Applied Materials & Interfaces, 2022, 14, 49199-49211.	8.0	7
1381	Fewer Sandwich Papers, Please. ACS Energy Letters, 2022, 7, 3727-3728.	17.4	5
1382	Exciton Photoluminescence of Strongly Quantum-Confined Formamidinium Lead Bromide (FAPbBr ₃) Quantum Dots. Journal of Physical Chemistry C, 2022, 126, 18366-18373.	3.1	2

#	Article	IF	CITATIONS
1383	Photovoltaic performance of mixed cation K _{0.005} MA _{0.995} PbI ₃ â€based perovskite solar module. , 2023, 2, .		4
1384	Vacancy-ordered chloride perovskites for reversible release–storage of chlorine. Journal of Materials Science, 2022, 57, 18266-18276.	3.7	3
1385	One-step synthesis of SiO2 nanomesh for antireflection and self-cleaning of solar cell. Journal of Colloid and Interface Science, 2023, 630, 795-803.	9.4	3
1386	Tunable photoluminescence and enhanced stability in two-dimensional (C3H7NH3)2(MA)n-1PbnBr3n+1 perovskite colloidal nanocrystals. Optical Materials, 2022, 133, 113072.	3.6	1
1387	Nanoscale heterogeneity of ultrafast many-body carrier dynamics in triple cation perovskites. Nature Communications, 2022, 13, .	12.8	4
1388	Recent progress and future prospects on halide perovskite nanocrystals for optoelectronics and beyond. IScience, 2022, 25, 105371.	4.1	10
1389	Progress and challenges in the fabrication of lead-free all-inorganic perovskites solar cells using solvent and compositional engineering Techniques-A review. Journal of Solid State Chemistry, 2023, 317, 123608.	2.9	4
1390	A Wide Band-gap Metal-free Perovskite for Nonlinear Optics. , 2022, , .		0
1391	Strategies for the preparation of high-performance inorganic mixed-halide perovskite solar cells. RSC Advances, 2022, 12, 32925-32948.	3.6	11
1392	Taking a closer look – how the microstructure of Dion–Jacobson perovskites governs their photophysics. Journal of Materials Chemistry C, 0, , .	5.5	0
1393	Industrial Innovation Through SustainableÂMaterials. , 2022, , 2577-2618.		0
1394	Eu3+ doped CsPbCl2Br1 nanocrystals glass for enhanced the ultraviolet response of Si photodetectors. Journal of Luminescence, 2023, 254, 119530.	3.1	3
1395	Vertical distribution of PbI2 nanosheets for robust air-processed perovskite solar cells. Chemical Engineering Journal, 2023, 454, 140163.	12.7	11
1396	DFT crystal and electronic structure of the direct bandgap Cu(1-x)NaxPF6: (x = 0.125n, n = 1–7). Journal of Physics and Chemistry of Solids, 2023, 173, 111116.	4.0	Ο
1397	Effect of Solution and Dry Processing Techniques on the Optical and Transport Properties of Inorganic CsPbBr ₃ Perovskite Films. Journal of Physics: Conference Series, 2022, 2357, 012019.	0.4	2
1398	Recent advances in developing high-performance organic hole transporting materials for inverted perovskite solar cells. Frontiers of Optoelectronics, 2022, 15, .	3.7	19
1399	Computational Probing of Tin-Based Lead-Free Perovskite Solar Cells: Effects of Absorber Parameters and Various Electron Transport Layer Materials on Device Performance. Materials, 2022, 15, 7859.	2.9	10
1400	The opportunities and challenges of ionic liquids in perovskite solar cells. Journal of Energy Chemistry, 2023, 77, 157-171.	12.9	8

#	Article	IF	CITATIONS
1401	Antiferromagnetic Order in the Rare-Earth Halide Perovskites CsEuBr ₃ and CsEuCl ₃ . Chemistry of Materials, 2022, 34, 10772-10777.	6.7	3
1402	An electronic synaptic memory device based on four-cation mixed halide perovskite. Discover Materials, 2022, 2, .	2.8	5
1403	Structural and Photophysical Properties of Guanidinium–lodideâ€Treated Perovskite Solar Cells. Solar Rrl, 2023, 7, .	5.8	7
1404	A Machine Learningâ€Assisted Approach to a Rapid and Reliable Screening for Mechanically Stable Perovskiteâ€Based Materials. Advanced Functional Materials, 2023, 33, .	14.9	6
1405	Growth and Characterization of High-Quality Orthorhombic Phase CsPbBr3 Perovskite Single Crystals for Optoelectronic Applications. Journal of Electronic Materials, 2023, 52, 718-729.	2.2	7
1406	Onset of vacancy-mediated high activation energy leads to large ionic conductivity in two-dimensional layered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cs</mml:mi><mml:mr Ruddlesden-Popper halide perovskite. Physical Review Materials. 2022. 6.</mml:mr </mml:msub></mml:mrow></mml:math 	n>24 <td>:mn></td>	:mn>
1407	The effect of CO ₂ -doped spiro-OMeTAD hole transport layer on FA _(1â^'<i>x</i>) Cs _{<i>x</i>} PbI ₃ perovskite solar cells. Journal of Chemical Research, 2022, 46, 174751982211360.	1.3	0
1408	Stacked vanadium pentoxide–zinc oxide interface for optically-chargeable supercapacitors. Journal of Materials Chemistry A, 2022, 11, 95-107.	10.3	5
1409	A spectroscopic overview of the differences between the absorbing states and the emitting states in semiconductor perovskite nanocrystals. Nanoscale, 2023, 15, 2470-2487.	5.6	9
1410	High resolution and time resolved photoemission spectroscopy for developing more efficient materials to reduce energy consumption and increase renewable energy production. EPJ Web of Conferences, 2022, 273, 01013.	0.3	Ο
1411	Amorphous antimony sulfide nanoparticles construct multi-contact electron transport layers for efficient carbon-based all-inorganic CsPbI2Br perovskite solar cells. Chemical Engineering Journal, 2023, 455, 140871.	12.7	1
1412	Design and synthesis of multifaceted dicyanomethylene rhodanine linked thiophene: a SnO _{<i>x</i>} –perovskite dual interface modifier facilitating enhanced device performance through improved Fermi level alignment, defect passivation and reduced energy loss. Sustainable Energy and Fuels. 2023. 7. 735-751.	4.9	2
1413	Tiny spots to light the future: advances in synthesis, properties, and application of perovskite nanocrystals in solar cells. Nanoscale, 2023, 15, 907-941.	5.6	1
1414	Three-dimensional narrow-bandgap perovskite semiconductor ferroelectric methylphosphonium tin triiodide for potential photovoltaic application. Chemical Communications, 2023, 59, 920-923.	4.1	8
1415	The progress and efficiency of CsPbI ₂ Br perovskite solar cells. Journal of Materials Chemistry C, 2023, 11, 426-455.	5.5	9
1416	Hybrid copper halide material with perovskite like structure with tetrahedral units; synthesis, characterization and optical properties. Polyhedron, 2023, 231, 116247.	2.2	2
1417	Vitamin needed: Lanthanides in optoelectronic applications of metal halide perovskites. Materials Science and Engineering Reports, 2023, 152, 100710.	31.8	12
1418	Design and modification of perovskite materials for photocatalytic performance improvement. Journal of Environmental Chemical Engineering, 2023, 11, 109056.	6.7	8

#	Article	IF	CITATIONS
1419	Enhancing the efficiency and stability of 2D-3D perovskite solar cells with embedded interface passivation with diammonium cation spacer. Solar Energy Materials and Solar Cells, 2023, 251, 112135.	6.2	4
1420	Observation of isomorphic phase transition in non-perovskite Green CsSnl 3. Materialia, 2023, 27, 101646.	2.7	1
1421	Accelerated discovery of defect tolerant organo-halide perovskites. Journal of Materials Chemistry C, 2022, 10, 18385-18392.	5.5	1
1422	Supramolecular control in hybrid perovskite photovoltaics. Photochemistry, 2022, , 346-370.	0.2	0
1423	Emerging Chalcohalide Materials for Energy Applications. Chemical Reviews, 2023, 123, 327-378.	47.7	34
1424	Orotic Acid as a Bifunctional Additive for Regulating Crystallization and Passivating Defects toward High-Performance Formamidinium–Cesium Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 53808-53818.	8.0	3
1425	Recent Progress Toward Commercialization of Flexible Perovskite Solar Cells: From Materials and Structures to Mechanical Stabilities. Advanced Energy and Sustainability Research, 2023, 4, .	5.8	10
1426	Thermal Conductivity of a Porous Material with an Ordered Structure. , 2022, , .		2
1427	In-depth understanding the effect of electron-withdrawing/-donating groups on the interfacial carrier dynamics in naphthalimide-treated perovskite solar cells. Journal of Energy Chemistry, 2023, 77, 514-520.	12.9	9
1428	Watching Excitations in CsPbBr ₃ Perovskite Nanocrystals Undergo Ultrafast Relaxation to Their Emitting State. Journal of Physical Chemistry C, 2022, 126, 20505-20510.	3.1	5
1429	Crystallization control of air-processed wide-bandgap perovskite for carbon-based perovskite solar cells with 17.69% efficiency. Chemical Engineering Journal, 2023, 455, 140566.	12.7	13
1430	Observation of grey cesium tin bromide with unusual phase transition. Europhysics Letters, 2023, 141, 26001.	2.0	3
1431	Upconverting Nearâ€Infrared Light Detection in Lead Halide Perovskite with Core–Shell Lanthanide Nanoparticles. Advanced Photonics Research, 2023, 4, .	3.6	2
1432	Over 32% Efficient Allâ€Inorganic Twoâ€Terminal CsPbl ₂ Br/Si Tandem Solar Cells: A Numerical Investigation. Energy Technology, 2023, 11, .	3.8	2
1433	Exploring a Stable and Dense 3D Lead Chloride Hybrid with Emission of Selfâ€Trapped Excitons toward Xâ€Ray Scintillation. Advanced Functional Materials, 2023, 33, .	14.9	9
1434	Stereoelectronic Effect from B-Site Dopants Stabilizes Black Phase of CsPbI ₃ . Chemistry of Materials, 2023, 35, 271-279.	6.7	9
1435	Halide double perovskite-based efficient mechanical energy harvester and storage devices for self-charging power unit. Nano Energy, 2023, 107, 108148.	16.0	4
1436	Acetamidinium bromoplumbate <scp> CH ₃ C </scp> (<scp> NH ₂ </scp>) <scp> ₂ PbBr ₃ </scp> with <scp> 4H BaRuO ₃ </scp> structure. Bulletin of the Korean Chemical Society, 0, , .	1.9	0

#	Article	IF	CITATIONS
1437	Improving the Stability of Halide Perovskite Solar Cells Using Nanoparticles of Tungsten Disulfide. Nanomaterials, 2022, 12, 4454.	4.1	2
1438	Modeling the structural, electronic, optoelectronic, thermodynamic, and core-level spectroscopy of X–SnO3 (X=Ag, Cs, Hf) perovskites. Computational and Theoretical Chemistry, 2023, 1220, 114003.	2.5	7
1439	An Overview of Current Printing Technologies for Large-Scale Perovskite Solar Cell Development. Energies, 2023, 16, 190.	3.1	3
1440	<i>Ab initio</i> structural optimization at finite temperatures based on anharmonic phonon theory: Application to the structural phase transitions of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BaTiO</mml:mi><mml:mn>3Physical Review B. 2022. 106</mml:mn></mml:msub></mml:math 	l:mn> <td>nl<mark>:</mark>msub></td>	nl <mark>:</mark> msub>
1441	Metal-Doped TiO2 Thin Film as an Electron Transfer Layer for Perovskite Solar Cells: A Review. Coatings, 2023, 13, 4.	2.6	7
1442	A Core@Dual–Shell Nanostructured SnO ₂ to Modulate the Buried Interfaces Toward Stable Perovskite Solar Cells With Minimized Energy Losses. Advanced Energy Materials, 2023, 13, .	19.5	14
1443	Synthesis and physical characteristics of narrow bandgap chalcogenide SnZrSe3. Open Research Europe, 0, 2, 138.	2.0	1
1444	Deciphering the Role of Hole Transport Layer HOMO Level on the Open Circuit Voltage of Perovskite Solar Cells. Advanced Materials Interfaces, 2023, 10, .	3.7	2
1445	A brief overview of electrode materials for hydrazine sensors and dye-sensitized solar cells. Microchemical Journal, 2023, 186, 108317.	4.5	1
1446	Exploring Cu-Doping for Performance Improvement in Sb2Se3 Photovoltaic Solar Cells. International Journal of Molecular Sciences, 2022, 23, 15529.	4.1	6
1447	Simple Visualization of Universal Ferroelastic Domain Walls in Lead Halide Perovskites. Advanced Materials, 2023, 35, .	21.0	4
1448	Regulating film crystallization kinetics with thiourea additive in Cs ₂ AgBiBr ₆ solar cells. Journal Physics D: Applied Physics, 2023, 56, 075501.	2.8	4
1449	Continuous Modification of Perovskite Film by a Eu Complex to Fabricate the Thermal and UV-Light-Stable Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 55538-55547.	8.0	2
1450	Selfâ€Healing Ability of Perovskites Observed via Photoluminescence Response on Nanoscale Local Forces and Mechanical Damage. Advanced Science, 2023, 10, .	11.2	3
1451	Halide Perovskite Excitonic Diffraction Grating. Advanced Optical Materials, 0, , 2202152.	7.3	0
1452	Two-Dimensional Layered Organic–Inorganic Hybrid Perovskite Thin-Film Fabrication by Langmuir–Blodgett and Intercalation Techniques. ACS Omega, 2022, 7, 47812-47820.	3.5	1
1453	Excitation Intensity- and Size-Dependent Halide Photosegregation in CsPb(I _{0.5} Br _{0.5}) ₃ Perovskite Nanocrystals. ACS Nano, 2022, 16, 21636-21644.	14.6	8
1454	Heavy pnictogen chalcohalides for efficient, stable, and environmentally friendly solar cell applications. Nanotechnology, 2023, 34, 142001.	2.6	6

#	Article	IF	CITATIONS
1455	Shaking Things from the Ground-Up: A Systematic Overview of the Mechanochemistry of Hard and High-Melting Inorganic Materials. Molecules, 2023, 28, 897.	3.8	6
1456	Universal scaling laws for charge-carrier interactions with quantum confinement in lead-halide perovskites. Nature Communications, 2023, 14, .	12.8	22
1457	Numerical Study on the Effect of Dual Electron Transport Layer in Improving the Performance of Perovskite–Perovskite Tandem Solar Cells. Advanced Theory and Simulations, 2023, 6, .	2.8	6
1458	Two metal-free perovskite molecules with different 3D frameworks show reversible phase transition, dielectric anomaly and SHG effect. Dalton Transactions, 2023, 52, 1753-1760.	3.3	6
1459	Size-dependent chiro-optical properties of CsPbBr ₃ nanoparticles. Nanoscale, 2023, 15, 2143-2151.	5.6	7
1460	Controlled Growth of Hybrid Halide Perovskites by Crown Ether Complexation for Perovskite Solar Cells. Helvetica Chimica Acta, 2023, 106, .	1.6	2
1461	Comparison and integration of CuInGaSe and perovskite solar cells. Journal of Energy Chemistry, 2023, 78, 463-475.	12.9	4
1462	Redox Chemistry of the Subphases of α-CsPbI2Br and β-CsPbI2Br: Theory Reveals New Potential for Photostability. Nanomaterials, 2023, 13, 276.	4.1	1
1463	Spacer-Dependent and Pressure-Tuned Structures and Optoelectronic Properties of 2D Hybrid Halide Perovskites. Journal of Physical Chemistry Letters, 2023, 14, 403-412.	4.6	5
1464	26.48% efficient and stable FAPbI ₃ perovskite solar cells employing SrCu ₂ O ₂ as hole transport layer. RSC Advances, 2023, 13, 1892-1905.	3.6	20
1465	Hybrid Chlorides with Methylhydrazinium Cation: [CH3NH2NH2]CdCl3 and Jahn-Teller Distorted [CH3NH2NH2]CuCl3. Molecules, 2023, 28, 473.	3.8	1
1466	Exploring the Limits: Degradation Behavior of Lead Halide Perovskite Films under Exposure to Ultrahigh Doses of γ Rays of Up to 10 MGy. Journal of Physical Chemistry Letters, 2023, 14, 743-749.	4.6	3
1467	Exploring the Links between Photoluminescence and Microstructure in Cs ₂ InBr ₅ ·H ₂ O Samples Doped with Pb ²⁺ . Chemistry of Materials, 2023, 35, 482-489.	6.7	2
1468	Metal Halide Perovskite for next-generation optoelectronics: progresses and prospects. ELight, 2023, 3, .	23.9	74
1469	Insoluble Organics as Electron-Transporting Materials Enabled by Solvothermal Technology for Solution-Processable Perovskite Solar Cells. Journal of Physical Chemistry C, 2023, 127, 1326-1332.	3.1	0
1470	â€~Radicalize' the Performance of Perovskite Solar Cells with Radical Compounds. Chemical Research in Chinese Universities, 0, , .	2.6	3
1471	First-principles calculations to investigate pressure-driven electronic phase transition of lead-free halide perovskites KMCl3 (MÂ=ÂGe, Sn) for superior optoelectronic performance. Results in Physics, 2023, 44, 106212.	4.1	10
1472	Phase Stability, Band Gap Tuning, and Rashba Splitting in Selenium-Alloyed Bournonite: CuPbSb(S _{1–<i>x</i>} Se _{<i>x</i>}) ₃ . Chemistry of Materials, 2023, 35, 595-608.	6.7	3

#	Article	IF	CITATIONS
1473	Fabrication of two-dimensional hybrid organic–inorganic lead halide perovskites with controlled multilayer structures by liquid-phase laser ablation. Journal of Materials Chemistry C, 2023, 11, 910-916.	5.5	6
1474	All-Inorganic CsPb ₂ I ₄ Br/CsPbI ₂ Br 2D/3D Bulk Heterojunction Boosting Carbon-Based CsPbI ₂ Br Perovskite Solar Cells with an Efficiency of Over 15%. ACS Energy Letters, 2023, 8, 909-916.	17.4	20
1475	Understanding the Degradation Factors, Mechanism and Initiatives for Highly Efficient Perovskite Solar Cells. ChemNanoMat, 2023, 9, .	2.8	5
1477	Buried solvent assisted perovskite crystallization for efficient and stable inverted solar cells. Journal of Power Sources, 2023, 558, 232626.	7.8	4
1478	Phosphorous-doped graphene as an efficient interfacial layer material for application in solution-processed photodetectors. Nano Structures Nano Objects, 2023, 33, 100937.	3.5	1
1479	Improved photovoltaic performance and stability of perovskite solar cells with device structure of (ITO/SnO2/CH3NH3Pbl3/rCO+spiro-MeOTAD/Au). Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2023, 289, 116227.	3.5	12
1480	Excitation wavelength-dependent multi-emission in Sb3+/Bi3+/Er3+ codoped perovskite toward optical anti-counterfeiting and information storage. Journal of Alloys and Compounds, 2023, 940, 168925.	5.5	1
1481	Anionic Alloying in Hybrid Halide Cs ₂ AgBiBr _{6–<i>x</i>} Cl _{<i>x</i>} Double Perovskites: Is it True Alloying or Preferential Occupation of Halide Ions in MX ₆ Octahedra?. Journal of Physical Chemistry C, 2023, 127, 1588-1597.	3.1	5
1482	Recent progress inÂbifacialÂperovskite solar cells. Applied Physics A: Materials Science and Processing, 2023, 129, .	2.3	8
1483	1,2,5, <scp>6â€Naphthalene</scp> Diimides: A Class of Promising Building Blocks for Organic Semiconductors ^{â€} . Chinese Journal of Chemistry, 2023, 41, 1226-1234.	4.9	2
1484	Carbon Dots in Perovskite Solar Cells: Properties, Applications, and Perspectives. Energy & Fuels, 2023, 37, 876-901.	5.1	7
1485	Perovskite-based nanomaterials for CO2 conversion. , 2023, , 181-209.		1
1486	Superradiant Electron Energy Loss Spectroscopy. Nano Letters, 2023, 23, 779-787.	9.1	2
1487	Halide perovskite photoelectric artificial synapses: materials, devices, and applications. Nanoscale, 2023, 15, 4653-4668.	5.6	10
1488	Surface Passivation of Lead Halide Perovskite Solar Cells by a Bifacial Donorâ~π–Donor Molecule. ACS Applied Materials & Interfaces, 2023, 15, 6708-6715.	8.0	4
1489	Green and cost-effective morter grinding synthesis of bismuth-doped halide perovskites as efficient absorber materials. Journal of Materials Science: Materials in Electronics, 2023, 34, .	2.2	4
1490	Shape-controlled synthesis of one-dimensional cesium lead halide perovskite nanocrystals: methods and advances. Journal of Materials Chemistry C, 2023, 11, 3409-3427.	5.5	2
1491	Aggregation-induced emission materials: a platform for diverse energy transformation and applications. Journal of Materials Chemistry A, 2023, 11, 4850-4875.	10.3	6

#	Article	IF	CITATIONS
1492	Directional Amplified Photoluminescence through Large-Area Perovskite-Based Metasurfaces. ACS Nano, 2023, 17, 2399-2410.	14.6	8
1493	The Influence of Different Recombination Pathways on Hysteresis in Perovskite Solar Cells with Ion Migration. Inorganics, 2023, 11, 52.	2.7	0
1494	Halide-based perovskites in photonics: From photocatalysts to highly efficient optoelectronic devices. , 2023, , 547-600.		1
1495	Recent Progress on Boosting the Perovskite Film Quality of All-Inorganic Perovskite Solar Cells. Coatings, 2023, 13, 281.	2.6	5
1496	Lower dimensional nontoxic perovskites: Structures, optoelectronic properties, and applications. , 2023, , 437-466.		1
1497	Highly selective photocatalytic CO ₂ reduction <i>via</i> a lead-free perovskite/MOF catalyst. Journal of Materials Chemistry A, 2023, 11, 4020-4029.	10.3	20
1498	Well-organized SnO2 inverse opal monolayer as structured electron transport layer for high-efficiency perovskite solar cells. Applied Physics Letters, 2023, 122, .	3.3	3
1499	Porous Organic Cage Induced Spontaneous Restructuring of Buried Interface Toward Highâ€Performance Perovskite Photovoltaic. Advanced Functional Materials, 2023, 33, .	14.9	18
1500	Fundamentals and classification of halide perovskites. , 2023, , 19-55.		0
1501	Disorder to order: how halide mixing in MAPbl _{3â^'<i>x</i>} Br _{<i>x</i>} perovskites restricts MA dynamics. Journal of Materials Chemistry A, 2023, 11, 4587-4597.	10.3	2
1502	å‰ç"µåŠå⁻¼ä½"ææ–™çš"ç†è®ºè®¾è®¡. Chinese Science Bulletin, 2023, , .	0.7	0
1503	Activity of N–H in phenothiazine derivatives: synthesis and applications in fluoride ions sensing and electrochromism. Journal of Materials Chemistry C, 2023, 11, 2949-2956.	5.5	6
1504	Tuning the Photoelectric Properties of Perovskite Materials Using Mg/Ge/Si and Br Double-Doped to FASnI ₃ . Journal of Physical Chemistry C, 2023, 127, 2215-2222.	3.1	6
1505	Thin-film materials for space power applications. , 2023, , 215-263.		1
1506	Low-dimensional halide perovskite for solar cell applications. , 2023, , 239-265.		1
1507	Broadband yellow and white emission from large octahedral tilting in (110)-oriented layered perovskites: imidazolium-methylhydrazinium lead halides. Journal of Materials Chemistry C, 2023, 11, 4907-4915.	5.5	5
1508	Exsolution on perovskite oxides: morphology and anchorage of nanoparticles. Chemical Communications, 2023, 59, 3948-3956.	4.1	9
1509	Highly stable, substrate-free, and flexible broadband halide perovskite paper photodetectors. Nanoscale, 2023, 15, 6581-6587.	5.6	1

		CITATION RE	PORT	
# 1510	ARTICLE Mitigating Surface Deficiencies of Perovskite Single Crystals Enables Efficient Solar Cell Enhanced Moisture and Reverseâ€Bias Stability. Advanced Functional Materials, 2023, 3		IF 14.9	Citations 20
1511	Anisotropic Heavy-Metal-Free Semiconductor Nanocrystals: Synthesis, Properties, and A Chemical Reviews, 2023, 123, 3625-3692.		47.7	9
1512	A New Descriptor for Complicated Effects of Electronic Density of States on Ion Migrati Functional Materials, 2023, 33, .	on. Advanced	14.9	6
1513	P3HT vs Spiro-OMeTAD as a hole transport layer for halide perovskite indoor photovolta self-powering of motion sensors. JPhys Materials, 2023, 6, 024004.	iics and	4.2	1
1514	Optical Properties and Metalâ€Dependent Charge Transfer in Iodido Pentelates. ChemF	'lusChem, 2023, 88,	2.8	1
1515	Mechanochemical Synthesis of Highâ€Entropy Perovskite toward Highly Sensitive and S Flatâ€Panel Detectors. Advanced Materials, 2023, 35, .	Stable Xâ€ r ay	21.0	8
1516	Passivating detrimental grain boundaries in perovskite films with strongly interacting per achieving high-efficiency and stable perovskite solar cells. Applied Surface Science, 202	olymer for 3, 626, 157209.	6.1	6
1517	Amorphous <scp> BaTiO ₃ </scp> Electron Transport Layer for Thermal <s Equilibriumâ€Governed γâ€CsPbI ₃ Perovskite Solar Cell with High Efficiency of 19.96%. Energy and Environmental Materials, 0, , .</s 	cp> Power Conversion	12.8	1
1518	Numerical analysis of high performance perovskite solar cells with stacked ETLs/C60 using SCAPS-1D device simulator. Optical and Quantum Electronics, 2023, 55, .		3.3	2
1519	Lanthanide Double Perovskite Nanocrystals with Emissions Covering the UVâ $\in\!$ to NIR Advanced Optical Materials, 2023, 11, .	Spectral Range.	7.3	12
1520	Metal halide perovskite materials in photocatalysis: Design strategies and applications. Chemistry Reviews, 2023, 481, 215031.	Coordination	18.8	22
1521	Second-phase of low-dimensional perovskite in-situ grown from TACl with remnant Pbl2 quality PSCs. Organic Electronics, 2023, 116, 106758.	for high	2.6	2
1522	Biexciton binding energy in CH3NH3PbBr3 as determined by multiphoton photolumines spectroscopy. Current Applied Physics, 2023, 49, 132-137.	scence excitation	2.4	0
1523	MXenes for perovskite solar cells: Progress and prospects. Journal of Energy Chemistry, 443-461.	2023, 81,	12.9	3
1524	Synthesis, structure and optical properties of (H2DMAPA)BiBr5, (H2DMAPA)BiBr2I3, (H and (H2EP)2AgBiBr8 lead-free perovskites. Journal of Solid State Chemistry, 2023, 322,		2.9	1
1525	Reviewing perovskite oxide sites influence on electrocatalytic reactions for high energy devices. Journal of Energy Chemistry, 2023, 81, 1-19.	density	12.9	11
1526	Structure stabilized with robust molecular cation N(CH3)4+ in high efficiency perovskit Materials Today Chemistry, 2023, 30, 101511.	e solar cells.	3.5	1
1527	Photoactive materials and devices for energy-efficient soft wearable optoelectronic syst Energy, 2023, 110, 108379.	tems. Nano	16.0	7

	CITATION I	CITATION REPORT	
#	Article	IF	CITATIONS
1528	More silicon-deep in the nanovalley Materials Science in Semiconductor Processing, 2023, 162, 107477.	4.0	0
1529	Electronic structure of the magnetic halide double perovskites <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> <mml:mrow> <mml:msub> <mml:mi> Cs</mml:mi> <mml from first principles. Physical Review Materials, 2023, 7, .</mml </mml:msub></mml:mrow></mml:math 	:mn 22k /mn	hl:man>
1530	Investigation of cubic K2NaXBr6(X=Sc, Y) double perovskites for optical and thermoelectric devices. Journal of Physics and Chemistry of Solids, 2023, 178, 111341.	4.0	7
1531	A nickel(<scp>ii</scp>)-based one-dimensional organic–inorganic halide perovskite ferroelectric with the highest Curie temperature. Chemical Science, 2023, 14, 1781-1786.	7.4	16
1532	Formamidinium Lead Iodide Perovskite Thin Films Formed by Two-Step Sequential Method: Solvent–Morphology Relationship. Materials, 2023, 16, 1049.	2.9	1
1533	Impact of concentration of DMF and H2O on photovoltaic properties of SnO2-based planar perovskite solar cells. Electrochimica Acta, 2023, 444, 141985.	5.2	3
1534	Synergetic Excess Pbl ₂ and Reduced Pb Leakage Management Strategy for 24.28% Efficient, Stable and Ecoâ€Friendly Perovskite Solar Cells. Advanced Functional Materials, 2023, 33, .	14.9	23
1535	A Polymer Strategy toward Highâ€Performance Multifunctional Perovskite Optoelectronics: From Polymer Matrix to Device Applications. Advanced Optical Materials, 2023, 11, .	7.3	4
1536	Size-matched dicarboxylic acid for buried interfacial engineering in high-performance perovskite solar cells. Chemical Engineering Journal, 2023, 460, 141705.	12.7	8
1537	The Effects of Mono- and Bivalent Linear Alkyl Interlayer Spacers on the Photobehavior of Mn(II)-Based Perovskites. International Journal of Molecular Sciences, 2023, 24, 3280.	4.1	2
1538	Functional Layers of Inverted Flexible Perovskite Solar Cells and Effective Technologies for Device Commercialization. Small Structures, 2023, 4, .	12.0	32
1539	Inhibited Crack Development by Compressive Strain in Perovskite Solar Cells with Improved Mechanical Stability. Advanced Materials, 2023, 35, .	21.0	18
1540	Mode locking of hole spin coherences in CsPb(Cl, Br)3 perovskite nanocrystals. Nature Communications, 2023, 14, .	12.8	9
1542	Preparation of High-Efficiency (>14%) HTL-Free Carbon-Based All-Inorganic Perovskite Solar Cells by Passivation with PABr Derivatives. ACS Applied Materials & Interfaces, 2023, 15, 9382-9391.	8.0	2
1543	Slow Spontaneous Efficiency Enhancement of Single-Crystal Perovskite Solar Cells Due to Trapped Solvent. ACS Applied Energy Materials, 2023, 6, 2257-2264.	5.1	1
1544	Recruiting Unicellular Algae for the Mass Production of Nanostructured Perovskites. Advanced Science, 2023, 10, .	11.2	1
1545	High-performance photodetector based on semi-encompassed CH ₃ NH ₃ PbCl ₃ –ZnO microwire heterojunction with alterable spectral response. Physica Scripta, 2023, 98, 035520.	2.5	0
1546	Perspectives for the conversion of perovskite indoor photovoltaics into IoT reality. Nanoscale, 2023, 15, 5167-5180.	5.6	4

ARTICLE IF CITATIONS Two-dimensional hybrid perovskite resistive switching memory inherited from photovoltaic devices. 1547 3.3 1 Applied Physics Letters, 2023, 122, . Alq3/MgF2 Multilayered Encapsulation Film for Enhanced Stability of Perovskite Solar Cells. , 2022, 1, 1548 225-233 Rational design of Lewis base molecules for stable and efficient inverted perovskite solar cells. 1549 12.6 147 Science, 2023, 379, 690-694. Doping Min²⁺ in a New Layered Halide Double Perovskite PPA₄NaInCl₈ (PPA⁺Â=) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 627 Td (C₆ Dimensional Reduction Accelerating Mn²⁺ Dissolution and Separation for Efficient Light Performance Enhancement of Leadâ€Free 2D Tin Halide Perovskite Transistors by Surface Passivation and 1551 10.0 14 Its Impact on Nonâ€Volatile Photomemory Characteristics. Small, 2023, 19, . Investigation on guanidinium bromide incorporation in methylammonium lead iodide for enhanced efficiency and stability of perovskite solar cells. Solar Energy, 2023, 253, 1-8. 6.1 Enhancing hole extraction via carbon nanotubes/poly(3-hexylthiophene) composite for carbon-based 1553 6.3 5 CsPbI2Br solar cells with a new record efficiency. Science China Materials, 2023, 66, 1727-1735. Probing proton diffusion as a guide to environmental stability in powder-engineered FAPbI3 and CsFAPbI3 perovskites. Cell Reports Physical Science, 2023, 4, 101304. 1554 5.6 Designing stable lead halide perovskite nanocrystals: From a single particle to nanocomposites. 1555 4.3 4 Applied Materials Today, 2023, 31, 101775. Temperatureâ€Dependent Reversal of Phase Segregation in Mixedâ€Halide Perovskites. Advanced Materials, 21.0 2023, 35, . Hybrid Organic–Inorganic Perovskite Superstructures for Ultrapure Green Emissions. Nanomaterials, 1557 3 4.1 2023, 13, 815. On structural factors determining the nature of the fluorescent properties of OIHMs based on 2.6 8-hydroxyquinoline. CrystEngComm, 2023, 25, 1993-2002. Tetramethylammonium hexafluorophosphate interface modification for high-efficiency perovskite 1559 2.8 0 solar cells. Journal Physics D: Applied Physics, 2023, 56, 145101. Concurrent Top and Buried Surface Optimization for Flexible Perovskite Solar Cells with High 14.9 Efficiency and Stability. Advanced Functional Materials, 2023, 33, . Wearable perovskite solar cells by aligned liquid crystal elastomers. Nature Communications, 2023, 14, 1561 12.8 22 Caesium manganese fluoride cubic-perovskite nanoparticles – synthesis, luminescence and magnetic 1562 2.4 properties. Journal of Sol-Gel Science and Technology, 0, , . Bulk Perovskite Crystal Properties Determined by Heterogeneous Nucleation and Growth. Materials, 1563 2.9 3 2023, 16, 2110. <i>In Situ</i> and <i>Operando</i> Characterizations of Metal Halide Perovskite and Solar Cells: 1564 Insights from Lab-Sized Devices to Upscaling Processes. Chemical Reviews, 2023, 123, 3160-3236.

#	Article	IF	CITATIONS
1565	MAPb(Br _{1–<i>x</i>} Cl _{<i>x</i>}) ₃ Hybrid Perovskite Materials for Direct X-ray Detection. ACS Applied Electronic Materials, 2023, 5, 1866-1878.	4.3	5
1566	Physical vapor deposition of Yb-doped Cs2AgSbBr6 films. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2023, 41, .	1.2	1
1567	Roomâ€Temperature Exceptionalâ€Pointâ€Driven Polariton Lasing from Perovskite Metasurface. Advanced Functional Materials, 2023, 33, .	14.9	6
1568	Detection of Single Charge Trapping Defects in Semiconductor Particles by Evaluating Photon Antibunching in Delayed Photoluminescence. Nano Letters, 2023, 23, 2087-2093.	9.1	1

1569 æ‱‹æ€§é'™é'›çŸ¿çš"光妿´»æ€§åĎéžçº¿æ€§å…‰å¦ç"究进展. Scientia Sinica: Physica, Mechanica Et Astronomica, 2023, , .

1570	Pureâ€ŀodide Wideâ€Bandgap Perovskites for Highâ€Efficiency Solar Cells by Crystallization Control. Advanced Functional Materials, 2023, 33, .	14.9	3
1571	Resistive Switching in CsPbBr ₃ (0D)/MoS ₂ (2D) Heterojunction System: Trap-Controlled Space Charge Limited Transport Mechanism. ACS Applied Electronic Materials, 2023, 5, 1536-1545.	4.3	3
1572	Photoelectrochemically Induced CO ₂ Reduction Using Halide-Tunable Lead-Free Perovskites. ACS Applied Energy Materials, 2023, 6, 3566-3578.	5.1	4
1573	Functional organic cation induced 3D-to-0D phase transformation and surface reconstruction of CsPbI3 inorganic perovskite. Science Bulletin, 2023, 68, 706-712.	9.0	8
1574	Improved Optical Properties of Leadâ€Free Double Perovskite Cs ₂ AgBiBr ₆ Nanocrystals via Na Ions Doping. Advanced Optical Materials, 2023, 11, .	7.3	5
1575	Efficient and Stable Carbon-Based Perovskite Solar Cells Enabled by Mixed CuPc:CuSCN Hole Transporting Layer for Indoor Applications. ACS Applied Materials & Interfaces, 2023, 15, 15486-15497.	8.0	7
1576	Review on Carbazole-Based Hole Transporting Materials for Perovskite Solar Cell. ACS Applied Energy Materials, 2023, 6, 3635-3664.	5.1	13
1577	Structures, band gaps, and formation energies of highly stable phases of inorganic ABX ₃ halides: A = Li, Na, K, Rb, Cs, Tl; B = Be, Mg, Ca, Ge, Sr, Sn, Pb; and X = F, Cl, Br, I. RSC Advances, 2023, 13, 9026-9032.	3.6	4
1578	A low-symmetry monothiatruxene-based hole transport material for planar n–i–p perovskite solar cells with 18.9% efficiency. Journal of Materials Chemistry C, 2023, 11, 8214-8222.	5.5	3
1579	Ligand-free template-assisted synthesis of stable perovskite nanocrystals with near-unity photoluminescence quantum yield within the pores of vaterite spheres. Nanoscale, 0, , .	5.6	0
1580	Upcycled synthesis and extraction of carbonâ€encapsulated iron carbide nanoparticles for gap Plasmon applications in perovskite solar cells. EcoMat, 0, , .	11.9	1
1581	Key Parameters and Thresholds Values for Obtaining High Performance Perovskite Solar Cells Indoors from Full Br Compositional and Bandgap Engineering. ACS Applied Energy Materials, 2023, 6, 10215-10224.	5.1	5
1582	Discovering New Type of Leadâ€Free Clusterâ€Based Hybrid Double Perovskite Derivatives with Chiral Optical Activities and Low Xâ€Ray Detection Limit. Advanced Functional Materials, 2023, 33, .	14.9	11

#	Article	IF	CITATIONS
1583	Recent Advances in Wide-Bandgap Organic–Inorganic Halide Perovskite Solar Cells and Tandem Application. Nano-Micro Letters, 2023, 15, .	27.0	41
1584	Coâ€Solvent Engineering Contributing to Achieve Highâ€Performance Perovskite Solar Cells and Modules Based on Antiâ€Solvent Free Technology. Small, 2023, 19, .	10.0	4
1585	Selfâ€Tracking Solar Concentrator with Absorption of Diffuse Sunlight. Advanced Optical Materials, 0, , .	7.3	0
1586	Exploring the Relationship of Microstructure and Conductivity in Metal Halide Perovskites via Active Learning-Driven Automated Scanning Probe Microscopy. Journal of Physical Chemistry Letters, 2023, 14, 3352-3359.	4.6	4
1587	Advances of metal halide perovskite large-size single crystals in photodetectors: from crystal materials to growth techniques. Journal of Materials Chemistry C, 2023, 11, 5908-5967.	5.5	3
1588	Selfâ€Driven Prenucleationâ€Induced Perovskite Crystallization Enables Efficient Perovskite Solar Cells. Angewandte Chemie - International Edition, 2023, 62, .	13.8	23
1589	Enhancing Efficiency and Stability of Perovskite Solar Cells via Photosensitive Molecule-Assisted Defect Passivation. ACS Applied Energy Materials, 0, , .	5.1	0
1590	Selfâ€Driven Prenucleationâ€Induced Perovskite Crystallization Enables Efficient Perovskite Solar Cells. Angewandte Chemie, 0, , .	2.0	0
1591	Direct Integration of Perovskite Solar Cells with Carbon Fibre Substrates. Advanced Materials, 0, , .	21.0	0
1592	Can Nitride Perovskites Provide the Same Superior Optoelectronic Properties as Lead Halide Perovskites?. ACS Energy Letters, 2023, 8, 2051-2057.	17.4	4
1593	Two-Dimensional Hybrid Dion–Jacobson Germanium Halide Perovskites. Chemistry of Materials, 2023, 35, 3265-3275.	6.7	15
1594	Advances in the large-scale production, fabrication, stability, and lifetime considerations of electronic materials for clean energy applications. , 2023, , 27-60.		0
1595	Improving the Solar Energy Utilization of Perovskite Solar Cells via Synergistic Effects of Alkylamine and Alkyl Acid on Defect Passivation. Solar Rrl, 2023, 7, .	5.8	1
1596	Contact Engineering of Halide Perovskites: Gold is Not Good Enough; Metalloid is Better. Small Methods, 0, , .	8.6	0
1597	Improving the Electron Transport Performance of TiO ₂ Film by Regulating TiCl ₄ Postâ€Treatment for Highâ€Efficiency Carbonâ€Based Perovskite Solar Cells. Small, 2023, 19, .	10.0	6
1598	lodine doping of CsPbBr ₃ : toward highly stable and clean perovskite single crystals for optoelectronic applications. Philosophical Magazine, 2023, 103, 1213-1231.	1.6	1
1599	Effective Approaches for Perovskite Solar Cells; Recent Advances and Perspectives. Physica Status Solidi (A) Applications and Materials Science, 0, , .	1.8	0
1600	Preparation of Nanostructured Sn/Ti Oxide Hybrid Films with Terpineol/PEG-Based Nanofluids: Perovskite Solar Cell Applications. Materials, 2023, 16, 3136.	2.9	1

# 1601	ARTICLE Highly stable lead-free Cs2AgBil6-GO composite photocatalysts for efficient organic pollutant degradation. Journal of Environmental Chemical Engineering, 2023, 11, 109960.	IF 6.7	CITATIONS 3
1602	Spinâ€Flip Raman Scattering on Electrons and Holes in Twoâ€Đimensional (PEA) ₂ PbI ₄ Perovskites. Small, 2023, 19, .	10.0	6
1603	Progress in photocapacitors: A review. Functional Materials Letters, 2023, 16, .	1.2	1
1604	Thermal tolerance of perovskite quantum dots dependent on A-site cation and surface ligand. Nature Communications, 2023, 14, .	12.8	12
1605	Self-healing perovskite solar cells based on copolymer-templated TiO2 electron transport layer. Scientific Reports, 2023, 13, .	3.3	5
1606	Efficient and stable full-printed mesoscopic perovskite solar cells with potassium hexafluorophosphate additives. Sustainable Energy and Fuels, 2023, 7, 2349-2356.	4.9	1
1607	Perovskite Materials: Application Perspective. , 2023, , 1-16.		0
1608	Electron Ptychographic Phase Imaging of Beam-sensitive All-inorganic Halide Perovskites Using Four-dimensional Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2023, 29, 869-878.	0.4	2
1609	Numerical Analysis of Cs ₂ TiBr ₆ Perovskite Solar Cell Using ETL-CdS and HTL-Cul Materials. , 2023, , .		0
1610	Methanesulfinate Modifier for Printable Mesoscopic Perovskite Solar Cells with Enhanced Performance. Solar Rrl, 2023, 7, .	5.8	2
1611	Probing carrier trapping and hysteresis at perovskite grain boundaries via in situ characterization. Optical Materials, 2023, 139, 113817.	3.6	1
1612	4-lodo-1 <i>H</i> -imidazole dramatically improves the open-circuit voltages of perovskite solar cells to 1.2 V. New Journal of Chemistry, 2023, 47, 9913-9922.	2.8	2
1613	An extensive investigation of structural, electronic, optical, magnetic, and mechanical properties of YGaO3 for photovoltaic and optoelectronic applications: First-principles approach. Inorganic Chemistry Communication, 2023, 153, 110754.	3.9	1
1614	A Continuous Gradient Chemical Reduction Strategy of Graphene Oxide for Highly Efficient Evaporationâ€Driven Electricity Generation. Small Methods, 2023, 7, .	8.6	2
1615	Supramolecular structures of new tetranuclear hydroxypiperidine iodoantimonates(iii). Russian Chemical Bulletin, 2023, 72, 641-650.	1.5	1
1616	Advances and Challenges When Commercializing Perovskite Solar Cells. , 0, 43, 585-591.		0
1617	2â€inâ€1 Optimization for High Performance Semitransparent Perovskite Solar Cells. Advanced Optical Materials, 0, , .	7.3	0
1618	Protic Amine Carboxylic Acid Ionic Liquids Additives Regulate αâ€FAPbI ₃ Phase Transition for High Efficiency Perovskite Solar Cells. Small, 2023, 19, .	10.0	3

ARTICLE IF CITATIONS Stabilization of photoactive phases for perovskite photovoltaics. Nature Reviews Chemistry, 2023, 7, 30.2 31 1619 462-479. Water-Stable Hybrid Lead-Free Perovskite for Negative Temperature Coefficient Thermistors. Inorganic 4.0 Chemistry, 2023, 62, 7324-7332. 1D Diisopropylammonium Lead Iodide Perovskite Shows Exceptional Optical Stability and Thirdâ€Order 1621 2 7.3 Nonlinearity. Advanced Optical Materials, 2023, 11, . Preparation and Physicochemical Properties of Nanostructured Halide Perovskites., 2021, , 2-1-2-26. Heteroepitaxial Growth, Degenerate State, and Superconductivity of Perovskite-Type LaWN3 Thin Films. 1623 4.3 0 ACS Applied Electronic Materials, 2023, 5, 2793-2798. Facet Engineering: A Promising Pathway toward Highly Efficient and Stable Perovskite Photovoltaics. Journal of Physical Chemistry Letters, 2023, 14, 4409-4418. 1624 4.6 Chlorine retention enables the indoor light harvesting of triple halide wide bandgap perovskites. 1625 10.3 2 Journal of Materials Chemistry A, 2023, 11, 12328-12341. A comparative metaâ€analysis of gains in efficiency in Pb―and Snâ€based perovskite solar cells over the last decade. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2023, 649, . Preventing lead leakage in perovskite solar cells with a sustainable titanium dioxide sponge. Nature 1627 23.7 12 Sustainability, 2023, 6, 974-983. Synthesis and physical characteristics of narrow bandgap chalcogenide SnZrSe3. Open Research Europe, 0, 2, 138. Influence of chemical conversion parameters and resulting PbI2 content on carrier density and morphology of the p-type electrodeposited hybrid perovskite CH3NH3PbI3. Materials Chemistry and 1629 4.01 Physics, 2023, 305, 127933. A Semitransparent Silver–Bismuth Iodide Solar Cell with <i>V</i>_{oc} above 0.8 V for 5.1 Indoor Photovoltaics. ACS Applied Energy Materials, 2023, 6, 10274-10284. Improved Power Conversion Efficiency and Stability of Perovskite Solar Cells Induced by Molecular Interaction with Poly(ionic liquid) Additives. ACS Applied Materials & amp; Interfaces, 2023, 15, 1631 8.0 2 26872-26881. Interfacial Topochemical Fluoridation of MAPbl₃ by Fluoropolymers. Journal of Physical Chemistry Letters, 2023, 14, 5040-5047. 4.6 Room temperature deposition of IWO electrodes on Spiro-OMeTAD without buffer layers for 1633 2.6 0 Semi-transparent perovskite solar cells. Materials Letters, 2023, 347, 134612. Using Imidazolium in the Construction of Hybrid 2D and 3D Lead Bromide Pseudoperovskites. 2.2 Chemistry, 2023, 5, 1329-1343. Multi-functional buried interface engineering derived from in-situ-formed 2D perovskites using 1635 Ĩ€-conjugated liquid-crystalline molecule with aggregation-induced emission for efficient and stable 12.7 4 NiOx-based inverted perovskite solar cells. Chemical Engineering Journal, 2023, 469, 143789. The Dark Side of Lead-Free Metal Halide Nanocrystals: Substituent-Modulated Photocatalytic Activity in Benzyl Bromide Reduction. ACS Energy Letters, 2023, 8, 2789-2798.

#	Article	IF	CITATIONS
1637	Confocal mapping of stable room-temperature emission centers in gadolinium doped vacancy-ordered double halide perovskite, Gd:Cs2SnCl6. Optical Materials, 2023, 141, 113937.	3.6	3
1638	Orientation and Grain Size in MAPbl ₃ Thin Films: Influence on Phase Transition, Disorder, and Defects. Journal of Physical Chemistry C, 2023, 127, 10563-10573.	3.1	4
1639	Towards cost-efficient and stable perovskite solar cells and modules: utilization of self-assembled monolayers. Materials Chemistry Frontiers, 2023, 7, 3958-3985.	5.9	8
1640	钙钛矿åå±,å≇é~³ç"µæ±ä,电è•ä¼è¾"ææ−™çš"ç"究进展. Science China Materials, 2023, 66, 2107-2127.	6.3	1
1641	Light management using photonic structures towards high-index perovskite optoelectronics: fundamentals, designing, and applications. Energy and Environmental Science, 2023, 16, 4135-4163.	30.8	6
1642	Bismuth-based halide double perovskite Cs2KBiCl6: Disorder and luminescence. Chinese Chemical Letters, 2024, 35, 108641.	9.0	0
1643	Probing the Low-Frequency Response of Impedance Spectroscopy of Halide Perovskite Single Crystals Using Machine Learning. ACS Applied Materials & Interfaces, 2023, 15, 27801-27808.	8.0	5
1644	A mathematical design strategy for highly dispersive resonator systems. Mathematical Methods in the Applied Sciences, 0, , .	2.3	0
1645	Dynamic processes in decomposition of solid perovskite photovoltaic compounds. , 2023, , 229-263.		0
1646	Development of less toxic perovskite materials for solar cell applications. , 2023, , 645-669.		0
1647	Application of perovskites in solar cells. , 2023, , 485-517.		0
1648	Intrinsic Degradation-Dependent Energy Yield Estimates for Perovskite/Silicon Tandem Solar Cells under Field Conditions. ACS Energy Letters, 2023, 8, 2927-2934.	17.4	3
1649	Simulation Analysis of Formamidinium Lead Iodide Perovskite Solar Cells as Function of Thickness and Defects of Absorber Layer, Hole and Electron Transport Layer Under SCAPS-1D. Nanosistemi, Nanomateriali, Nanotehnologii, 2023, 21, .	0.3	0
1651	A two-dimensional lead-free hybrid perovskite semiconductor with reduced melting temperature. Chemical Communications, 2023, 59, 8302-8305.	4.1	6
1652	Nonlinear emission in CsPbBr3 decorated metasurfaces. Applied Physics Letters, 2023, 122, .	3.3	1
1653	Non-covalent interactions involving <i>ï€</i> effect between organic cations in low-dimensional organic/inorganic hybrid perovskites. Applied Physics Letters, 2023, 122, .	3.3	3
1654	Emerging Spintronic Materials and Functionalities. Advanced Materials, 0, , .	21.0	5
1655	A Deformable Additive on Defects Passivation and Phase Segregation Inhibition Enables the Efficiency of Inverted Perovskite Solar Cells over 24%. Advanced Materials, 2023, 35, .	21.0	28

#	Article	IF	CITATIONS
1656	Layered Lowâ€Dimensional Ruddlesdenâ€Popper and Dionâ€Jacobson Perovskites: From Material Properties to Photovoltaic Device Performance. ChemSusChem, 2023, 16, .	6.8	0
1657	Effect of functional groups in passivating materials on stability and performance of perovskite solar cells. Journal of Materials Chemistry A, O, , .	10.3	0
1658	Recent progress and rational design of perovskite-based chemosensors: A review. Journal of Alloys and Compounds, 2023, 962, 170996.	5.5	2
1659	Correlative Imaging of Individual CsPbBr ₃ Nanocrystals: Role of Isolated Grains in Photoluminescence of Perovskite Polycrystalline Thin Films. Journal of Physical Chemistry C, 2023, 127, 12404-12413.	3.1	1
1660	BN-Embedded Cycloarenes: One-Pot Borylation Synthesis, Photoelectric Properties, and Application in Perovskite Solar Cells. Journal of the American Chemical Society, 2023, 145, 14912-14921.	13.7	5
1661	Recent Progress in Perovskite Tandem Solar Cells. Nanomaterials, 2023, 13, 1886.	4.1	8
1662	Adjusted Bulk and Interfacial Properties in Highly Stable Semitransparent Perovskite Solar Cells Fabricated by Thermocompression Bonding between Perovskite Layers. ACS Applied Materials & Interfaces, 2023, 15, 31344-31353.	8.0	2
1663	基于Cs2AgBiBr6åڤŒ−物åŒé'™é'›çŸįå¤é̃³ç"µæ±çš"ç"ç©¶èį›å±•. Laser and Optoelectronics Progress, 202.	3, 60 , 070	00004.
1664	Recent Advances and Opportunities in Lowâ€Dimensional Layered Perovskites for Emergent Applications beyond Photovoltaics. Advanced Materials Technologies, 2023, 8, .	5.8	6
1665	Strategic Optimization of Annealing Parameters for Efficient and Low Hysteresis Triple Cation Perovskite Solar Cell. ChemistrySelect, 2023, 8, .	1.5	0
1666	Investigation of the potential solar cell application of Cs2AgBiBr6 lead-free double perovskite. Journal of Physics and Chemistry of Solids, 2023, 181, 111515.	4.0	1
1667	A comprehensive review of the current progresses and material advances in perovskite solar cells. Nanoscale Advances, 2023, 5, 3803-3833.	4.6	12
1668	Magnetic Fieldâ€Assisted Interface Embedding Strategy to Construct 2D/3D Composite Structure for Stable Perovskite Solar Cells with Efficiency Over 24%. Small, 0, , .	10.0	0
1669	Functional Materials for Memristorâ€Based Reservoir Computing: Dynamics and Applications. Advanced Functional Materials, 2023, 33, .	14.9	7
1670	Additive and Interface Engineering via Crosslinked 3D Polymer Network for Efficient and Stable Perovskite Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2023, 220, .	1.8	0
1671	Halogen Bond Induced Structural and Photophysical Properties Modification in Organic–Inorganic Hybrid Manganese Halides. Journal of Physical Chemistry Letters, 2023, 14, 4211-4218.	4.6	1
1672	Transport Layer Engineering by Hydrochloric Acid for Efficient Perovskite Solar Cells with a High Open-Circuit Voltage. ACS Applied Materials & Interfaces, 2023, 15, 23208-23216.	8.0	6
1673	Topotactic, Vapor-Phase, <i>In Situ</i> Monitored Formation of Ultrathin, Phase-Pure 2D-on-3D Halide Perovskite Surfaces. ACS Applied Materials & Interfaces, 2023, 15, 23908-23921.	8.0	1

#	Article	IF	Citations
1674	Seeking for Cost-Effective Tin Iodide Source toward Efficient Lead-Free Tin Triiodide Perovskite Solar Cells: Advances and Prospects. ACS Applied Energy Materials, 2023, 6, 5102-5112.	5.1	2
1675	3D to 0D cesium lead bromide: A 79/81Br NMR, NQR and theoretical investigation. Journal of Magnetic Resonance, 2023, 352, 107472.	2.1	0
1676	Halide perovskites: Properties, synthesis, and applications. , 2024, , 659-678.		0
1677	Theoretical Investigation of the Role of Mixed A ⁺ Cations in the Structure, Stability, and Electronic Properties of Perovskite Alloys. ACS Applied Energy Materials, 2023, 6, 5259-5273.	5.1	3
1678	Optoelectronic Devices of Large-Scale Transferred All-Inorganic Lead Halide Perovskite Thin Films. ACS Applied Materials & Interfaces, 2023, 15, 24606-24613.	8.0	3
1679	Potassium Acetate Passivated SnO ₂ Interface for Highâ€Efficiency Twoâ€Step Deposited Perovskite Solar Cells. Advanced Sustainable Systems, 2023, 7, .	5.3	4
1680	The stability of inorganic perovskite solar cells: from materials to devices. Materials Futures, 2023, 2, 032101.	8.4	2
1681	Crystal structure prediction of quasi-two-dimensional lead halide perovskites. Physical Review B, 2023, 107, .	3.2	3
1682	Surface modification of sputtered NiO _x hole transport layer for CH ₃ NH ₃ PbI ₃ perovskite solar cells. Japanese Journal of Applied Physics, 2023, 62, SK1054.	1.5	1
1683	Recent progress in construction methods and applications of perovskite photodetector arrays. Nanoscale Horizons, 2023, 8, 1014-1033.	8.0	1
1684	Photoluminescence Emission Studies on a Lanthanum-Doped Lead Free Double Halide Perovskite, La:Cs ₂ SnCl ₆ . Journal of Physical Chemistry Letters, 2023, 14, 5004-5012.	4.6	9
1685	Interfacial and Doping Synergistic Effect of Versatile Potassium Acetate toward Efficient CsPbl ₂ Br Perovskite Solar Cells. ACS Applied Energy Materials, 2023, 6, 5997-6005.	5.1	0
1686	Study of the defect chemistry in Ag2Q (Q = S, Se, Te) by first-principles calculations. Materials Today Physics, 2023, 35, 101129.	6.0	4
1687	Approaching Full-Scale Passivation in Perovskite Solar Cells via Valent-Variable Carbazole Cations. ACS Energy Letters, 2023, 8, 2772-2780.	17.4	3
1688	Resolving the Perovskite Degradation Mechanism by Machine Learning Potential: The Case of CsPbI ₃ . Journal of Physical Chemistry C, 2023, 127, 11692-11699.	3.1	1
1689	1D Narrow-Bandgap Tin Oxide Materials: Systematic High-Resolution TEM and Raman Analysis. Materials, 2023, 16, 4539.	2.9	1
1690	Low-dose transmission electron microscopy study on halide perovskites: Application and challenges. EnergyChem, 2023, , 100105.	19.1	0
1691	DFT Insight into Structural, Electronic, Optical and Thermoelectric Properties of Eco-Friendly Double Perovskites Rb2GeSnX6 (X = Cl, Br) for Green Energy Generation. Journal of Inorganic and Organometallic Polymers and Materials, 2023, 33, 3402-3412.	3.7	13

#	Article	IF	CITATIONS
1692	The Impact of Spacer Size on Charge Transfer Excitons in Dion–Jacobson and Ruddlesden–Popper Layered Hybrid Perovskites. Journal of Physical Chemistry Letters, 2023, 14, 6248-6254.	4.6	3
1693	Deciphering the role of (Er3+/Nd3+) co-doping effect on TiO2 as an improved electron transport layer in perovskite solar cells. Solar Energy, 2023, 262, 111801.	6.1	3
1694	Enhanced stability of methylammonium lead bromide perovskite interlaced on cellulose nanofiber. Ceramics International, 2023, 49, 30886-30891.	4.8	2
1695	Surface passivation of sequentially deposited perovskite solar cells by octylammonium spacer cations. , 2023, 1, .		2
1696	Perovskite Solar Module: Promise and Challenges in Efficiency, Meta tability, and Operational Lifetime. Advanced Electronic Materials, 2023, 9, .	5.1	2
1697	Perovskite Solar Cell Using Isonicotinic Acid as a Gap-Filling Self-Assembled Monolayer with High Photovoltaic Performance and Light Stability. ACS Applied Materials & Interfaces, 2023, 15, 33581-33592.	8.0	3
1698	Environmental remediation of hazardous pollutants using MXene-perovskite-based photocatalysts: A review. Environmental Research, 2023, 234, 116576.	7.5	2
1699	A review on organic hole transport materials for perovskite solar cells: Structure, composition and reliability. Materials Today, 2023, 67, 518-547.	14.2	5
1700	Metalâ \in free Perovskites for Xâ \in fay Detection. Chemistry - A European Journal, 0, , .	3.3	0
1701	Mechanistic insights into the key role of methylammonium iodide in the stability of perovskite materials. RSC Advances, 2023, 13, 20408-20416.	3.6	0
1702	Enhancement of Photocarrier Lifetimes in Infrared-Laser-Deposited CsPbBr ₃ Films Using a CsBr Underlayer. ACS Applied Electronic Materials, 2023, 5, 3965-3972.	4.3	0
1703	Advanced spectroscopic techniques for characterizing defects in perovskite solar cells. Communications Materials, 2023, 4, .	6.9	9
1704	Inverted Wide-Bandgap 2D/3D Perovskite Solar Cells with >22% Efficiency and Low Voltage Loss. Nano Letters, 2023, 23, 6705-6712.	9.1	6
1705	Efficient Integrated Perovskite/Organic Solar Cells <i>via</i> Interdigitated Interfacial Charge Transfer. ACS Applied Materials & Interfaces, 2023, 15, 34742-34749.	8.0	2
1706	Halide Tunablility Leads to Enhanced Biomechanical Energy Harvesting in Lead-Free Cs ₂ SnX ₆ -PVDF Composites. ACS Applied Materials & Interfaces, 2023, 15, 34726-34741.	8.0	1
1707	Overcoming the Photoinduced Solvent-Assisted Anion Exchange Reactions of CsPbBr ₃ Perovskite Nanocrystals. Journal of Physical Chemistry C, 2023, 127, 14495-14501.	3.1	1
1708	Two-dimensional MXene incorporating for electron and hole transport in high-performance perovskite solar cells. Materials Today Energy, 2023, 36, 101366.	4.7	9
1709	Development of halide perovskite photovoltaic devices towards high voltage performance. , 2022, , .		0

#	Article	IF	Citations
1710	Perovskite solar cell fabrication via scalable thermalâ€assisted and meniscusâ€guided barâ€coating method in open air. Journal of the Chinese Chemical Society, 2023, 70, 2226-2237.	1.4	0
1711	Optical Enhancement of Indirect Bandgap 2D Transition Metal Dichalcogenides for Multiâ€Functional Optoelectronic Sensors. Advanced Materials, 2023, 35, .	21.0	10
1713	Cyclodextrin–Induced Phase Transformation of Cesium Copper Bromide Perovskite. Chemical Communications, 0, , .	4.1	1
1714	Controllably modulated asymmetrical photoresponse with a nonvolatile memory effect in a single CH ₃ NH ₃ Pbl ₃ micro/nanowire for photorectifiers and photomemory. Nanoscale, 2023, 15, 13359-13370.	5.6	2
1715	Towards Commercialization of Perovskite Solar Cells: Fabrication, Lifetime, and Lead Toxicity. , 0, 52, 76-92.		0
1716	Organic-inorganic hybrid perovskite material and its application for transistor. Materials Chemistry Frontiers, 0, , .	5.9	0
1717	Effects of Residual DMSO Adduct on Photonically Cured MAPbI ₃ Solar Cells. Journal of Physical Chemistry C, 0, , .	3.1	1
1718	A Review on Energy Conversion Efficiencies of Various Perovskite Solar Cells. , 2023, , .		0
1719	Interface Engineering for High-Performance and Stable Hybrid Perovskite Shadow-Effect Energy Generator. Chemistry of Materials, 2023, 35, 7430-7441.	6.7	1
1720	C–N linked donor type porphyrin derivatives: unrevealed hole-transporting materials for efficient hybrid perovskite solar cells. Dalton Transactions, 2023, 52, 14762-14773.	3.3	1
1721	Strategies for large-scale perovskite solar cells realization. Organic Electronics, 2023, 122, 106892.	2.6	2
1722	Toward first-principles approaches for mechanistic study of self-trapped exciton luminescence. Chemical Physics Reviews, 2023, 4, .	5.7	2
1723	Fully Inkjetâ€Printed Greenâ€Emitting PEDOT:PSS/NiO/Colloidal CsPbBr ₃ /SnO ₂ Perovskite Lightâ€Emitting Diode on Rigid and Flexible Substrates. Advanced Engineering Materials, 2023, 25, .	3.5	1
1725	A High-Performance UVA Photodetector Based on Polycrystalline Perovskite MAPbCl3/TiO2 Nanorods Heterojunctions. Sensors, 2023, 23, 6726.	3.8	1
1726	Long-term operating stability in perovskite photovoltaics. Nature Reviews Materials, 2023, 8, 569-586.	48.7	31
1727	Screenâ€Printing Technology for Scale Manufacturing of Perovskite Solar Cells. Advanced Science, 2023, 10, .	11.2	5
1728	High-loading ultrastable CsPbBr ₃ perovskite quantum dots in hierarchical silicalite-1 by elimination of co-templates for multimodal optical applications. Journal of Materials Chemistry C, 2023, 11, 11865-11875.	5.5	0
1729	Steric Engineering of Point Defects in Lead Halide Perovskites. Journal of Physical Chemistry C, 2023, 127, 15738-15746.	3.1	0

#	Article	IF	CITATIONS
1730	Study of Glass Formation and Crystallization Kinetics in a 2D Metal Halide Perovskite Using Ultrafast Calorimetry. Journal of the American Chemical Society, 2023, 145, 18623-18633.	13.7	4
1731	A novel carbon electrode for up-scaling flexible perovskite solar cells. Applied Materials Today, 2023, 34, 101895.	4.3	3
1732	Regulating Exciton Diffusion in Antimonyâ€Based Perovskiteâ€Like Single Crystals toward Highly Efficient and Stable Luminescence. Advanced Optical Materials, 2023, 11, .	7.3	0
1733	Conformational Disorder in a Hybrid 2D Perovskite with a Long Aliphatic Chain under Pressure. Journal of Physical Chemistry C, 2023, 127, 16496-16507.	3.1	1
1734	Substrate Interface Engineering for Drastically Boosted Short-Circuit Current Density and Fill Factor in Perovskite Solar Cells. ACS Applied Energy Materials, 2023, 6, 8542-8549.	5.1	2
1735	Structural Features and Optical Properties of All-Inorganic Zero-Dimensional Halides Cs ₄ PbBr _{6–<i>x</i>} I <i>_x/i> Obtained by Mechanochemistry. ACS Applied Materials & Interfaces, 2023, 15, 40762-40771.</i>	8.0	1
1736	Polymorphism of heterometallic Bi/Cu halide complexes: Experimental examination of crystal structures, thermal stability and optical properties. Polyhedron, 2023, 244, 116626.	2.2	0
1737	Mixedâ€Halide Inorganic Perovskite Solar Cells: Opportunities and Challenges. Advanced Optical Materials, 2023, 11, .	7.3	11
1738	An Empirical Analysis of ZnO/Ag Nanocomposites Thin Film Organic Solar Cell with Optical and Structural Properties. Physica Scripta, 0, , .	2.5	0
1739	Lead-free, formamidinium germanium-antimony halide (FA ₄ GeSbCl ₁₂) double perovskite solar cells: the effects of band offsets. RSC Advances, 2023, 13, 25483-25496.	3.6	2
1740	Anharmonic phonon renormalization and thermoelectric properties of CsPbX ₃ (X = Cl, Br,) Tj ETQq0	0.0 rgBT / 2.8	Oyerlock 10
1741	Coherent Spin Dynamics of Electrons in CsPbBr3 Perovskite Nanocrystals at Room Temperature. Nanomaterials, 2023, 13, 2454.	4.1	2
1742	Functional layers in efficient and stable inverted tin-based perovskite solar cells. Joule, 2023, 7, 1966-1991.	24.0	2
1743	In Situ Controlled Growth of Strongly Quantum Confined CsPbBr ₃ /FAPbBr ₃ Core/Crown Nanoplatelets for Blue Light Emitting Diodes. Advanced Optical Materials, 0, , .	7.3	0
1744	Structural dimension engineering and high-temperature dielectric–optical switching in fluorine-substituted lead bromide hybrid perovskites. CrystEngComm, 2023, 25, 5029-5034.	2.6	0
1745	Boosting the performance of MA-free inverted perovskite solar cells <i>via</i> multifunctional amino acid additives. Journal of Materials Chemistry C, 2023, 11, 11157-11166.	5.5	4
1746	Transition metal ion-doped cesium lead halide perovskite nanocrystals: doping strategies and luminescence design. Materials Chemistry Frontiers, 2023, 8, 192-209.	5.9	1
1747	A 3D lead chloride hybrid exhibits self-trapped emission and exceptional stability. Inorganic Chemistry Frontiers, 2023, 10, 6392-6400.	6.0	1

#	Article	IF	CITATIONS
1748	Temperature dependence of radiative and non-radiative decay in the luminescence of one-dimensional pyridinium lead halide hybrids. Physical Chemistry Chemical Physics, 2023, 25, 21993-22001.	2.8	0
1749	Incorporation of functional polymers into metal halide perovskite thin-films: from interactions in solution to crystallization. Materials Advances, 2023, 4, 4294-4316.	5.4	1
1750	Plasmon-Enhanced Perovskite Solar Cells Based on Inkjet-Printed Au Nanoparticles Embedded into TiO2 Microdot Arrays. Nanomaterials, 2023, 13, 2675.	4.1	0
1751	Lead-free organic inorganic hybrid halide perovskites: An emerging candidate for bifunctional applications. Renewable and Sustainable Energy Reviews, 2023, 186, 113649.	16.4	11
1752	Advancing Efficiency and Stability of Lead, Tin, and Lead/Tin Perovskite Solar Cells: Strategies and Perspectives. Solar Rrl, 2023, 7, .	5.8	2
1753	Efficient Modeling of Quantum Dynamics of Charge Carriers in Materials Using Short Nonequilibrium Molecular Dynamics. Journal of Physical Chemistry Letters, 2023, 14, 8289-8295.	4.6	3
1754	Sizing Up Metal Halide Perovskite Photocatalysts: From Nano to Bulk. Advanced Optical Materials, 0, , .	7.3	0
1755	High-Throughput Screening on Halide Perovskite Derivatives and Rational Design of Cs ₃ LuCl ₆ . ACS Energy Letters, 2023, 8, 3621-3630.	17.4	1
1756	Multidentate Chelation Achieves Bilateral Passivation toward Efficient and Stable Perovskite Solar Cells with Minimized Energy Losses. Nano Letters, 2023, 23, 8610-8619.	9.1	6
1757	Organic–Inorganic Hybrid Hexagonal Perovskites (4-Methylpiperidinium)MnX ₃ (X = Cl and) Tj ETG Physical Chemistry C, 2023, 127, 18236-18243.	Qq1 1 0.78 3.1	34314 rgBT /(1
1758	p-Type Functionalized Carbon Nanohorns and Nanotubes in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2023, 15, 45212-45228.	8.0	0
1759	Chemistry in the Molten State: Opportunities for Designing and Tuning the Emission Properties of Halide Perovskites. Inorganic Chemistry, 2023, 62, 14252-14260.	4.0	1
1760	Large Phase-Transition Temperature Enhancement Achieved in a Layered Lead Iodide Hybrid Crystal by H/F Substitution. Inorganic Chemistry, 2023, 62, 14469-14476.	4.0	0
1761	Introducing Ferroelasticity into 1D Hybrid Lead Halide Semiconductor by Halogen Substitution Strategy. Small, 2023, 19, .	10.0	7
1762	Pressure Driven Optical Transitions in Columnar-Ordered Cs ₂ AgPdCl ₅ : Phase Transformation-Independent Piezochromism. Journal of Physical Chemistry C, 2023, 127, 14805-14811.	3.1	0
1763	Chiral Lead Halide Perovskite Nanocrystals: Construction Strategies and Photophysical Properties. Advanced Quantum Technologies, 2023, 6, .	3.9	1
			· · · · · · · · · · · · · · · · · · ·
1764	Tinâ€Based Ecoâ€Friendly Perovskites for Sustainable Future. Advanced Energy and Sustainability Research, 2023, 4, .	5.8	0

#	Article	IF	CITATIONS
1766	Hybrid Perovskite-Based Materials Modified with Polyhedral Silsesquioxanes—Structure and Properties. Materials, 2023, 16, 6531.	2.9	0
1769	Atomic Layer Deposition and Pulsed Chemical Vapor Deposition of SnI ₂ and CsSnI ₃ . Chemistry of Materials, 2023, 35, 8722-8732.	6.7	0
1770	Auxiliary guidance manufacture and revealing potential mechanism of perovskite solar cell using machine learning. Journal of Energy Chemistry, 2023, 86, 146-157.	12.9	1
1771	Understanding the temperature sensitivity of the photovoltaic parameters of perovskite solar cells. Solar Energy, 2023, 264, 112040.	6.1	0
1772	Molecular Engineering of Azahomofullerene-based Electron Transporting Materials for Efficient and Stable Perovskite Solar Cells. Chemistry of Materials, 2023, 35, 8309-8320.	6.7	1
1773	Photovoltaics for indoor applications: Progress, challenges and perspectives. Solar Energy, 2023, 264, 112057.	6.1	1
1774	Progress in tin-germanium perovskite solar cells: A review. Synthetic Metals, 2023, 299, 117475.	3.9	0
1775	Lithium doping effect on structural, electronic and optical properties of KCaF3 fluoroperovskite: DFT insights using GGA-PBE. Inorganic Chemistry Communication, 2023, 158, 111475.	3.9	0
1776	Magnetic Properties of Tetravalent Pu in the Perovskites BaPuO ₃ and SrPuO ₃ . Inorganic Chemistry, 2023, 62, 15891-15901.	4.0	0
1777	Machine Learning in Perovskite Solar Cells: Recent Developments and Future Perspectives. Energy Technology, 2023, 11, .	3.8	4
1778	Photoluminescence Mapping over Laser Pulse Fluence and Repetition Rate as a Fingerprint of Charge and Defect Dynamics in Perovskites. Advanced Optical Materials, 0, , .	7.3	0
1779	Kinetic Suppression of Photoinduced Halide Migration in Wide Bandgap Perovskites via Surface Passivation. Journal of Physical Chemistry Letters, 2023, 14, 9310-9315.	4.6	0
1780	Self-assembly of perovskite nanocrystals: From driving forces to applications. Journal of Energy Chemistry, 2024, 88, 561-578.	12.9	1
1781	DeePKS Model for Halide Perovskites with the Accuracy of a Hybrid Functional. Journal of Physical Chemistry C, 2023, 127, 18755-18764.	3.1	Ο
1782	Self-assembly of perovskite nanoplates in colloidal suspensions. Materials Horizons, 0, , .	12.2	0
1783	Interfacial modification of wide-bandgap perovskite solar cell approaching 20% with organic hole transport material. Chemical Engineering Journal, 2023, 474, 145632.	12.7	3
1784	Reaction Dynamics of C(NH ₂) ₃ SnI ₃ Formation from Vacuum-Deposited C(NH ₂) ₃ I and SnI ₂ Bilayer Thin Films Investigated by <i>In Situ</i> Infrared Multiple-Angle Incidence-Resolved Spectroscopy. ACS Applied Materials & amp; Interfaces, 2023, 15, 45411-45417.	8.0	1
1785	Impact of compact TiO2 interface modification on the crystallinity of perovskite solar cells. Scientific Reports, 2023, 13, .	3.3	2

#	Article	IF	CITATIONS
1786	Construction of 2D/3D/2Dâ€Structured Perovskite for Highâ€Performance and Stable Solar Cells. Advanced Functional Materials, 2023, 33, .	14.9	1
1787	Crystallization Retardation and Synergistic Trap Passivation in Perovskite Solar Cells Incorporated with Magnesium-Decorated Graphene Quantum Dots. ACS Omega, 2023, 8, 38345-38358.	3.5	Ο
1788	Construction of MAPbBr ₃ Perovskite Ultra-thin Layers on Au(100) Single-Crystal Substrate <i>via</i> Self-Assembled Monolayer. Vacuum and Surface Science, 2023, 66, 520-524.	0.1	0
1789	Enhanced Circular Dichroism and Polarized Emission in an Achiral, Low Band Gap Bismuth Iodide Perovskite Derivative. Journal of the American Chemical Society, 0, , .	13.7	0
1790	Exploring A‣ite Cation Variations in Dion–Jacobson Twoâ€Dimensional Halide Perovskites for Enhanced Solar Cell Applications: A Density Functional Theory Study. Advanced Energy and Sustainability Research, 0, , .	5.8	0
1791	Pseudo-halide anions engineering of FAPbI3 surface and SnO2/FAPbI3 heterostructure. Surfaces and Interfaces, 2023, 43, 103530.	3.0	0
1792	Energetic Stability and Band-Edge Orbitals of Layered Inorganic Perovskite Compounds for Solar Energy Applications. Journal of Physical Chemistry C, 2023, 127, 20217-20225.	3.1	0
1793	Emergence of a hidden topological insulator phase in hybrid halide perovskites. Applied Physics Letters, 2023, 123, .	3.3	0
1794	Composition Dependent Strain Engineering of Lead-Free Halide Double Perovskite: Computational Insights. Journal of Physical Chemistry Letters, 0, , 9479-9489.	4.6	0
1795	Rotor lattice model of ferroelectric large polarons. Physical Review Research, 2023, 5, .	3.6	0
1796	Optical control of spin-galvanic currents. Nature Materials, 2023, 22, 935-936.	27.5	1
1797	Strategic heating for growing perovskite single crystals. Matter, 2023, 6, 2537-2539.	10.0	0
1798	Flexible fluid-based encapsulation platform for water-sensitive materials. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	7.1	2
1799	Intermediate Phase Free <i>α</i> â€FAPbI ₃ Perovskite via Green Solvent Assisted Perovskite Single Crystal Redissolution Strategy. Advanced Materials, 2023, 35, .	21.0	8
1800	Machine Learning Driven Prediction of Band Alignment Types in 2D Hybrid Perovskites. Journal of Materials Chemistry A, 0, , .	10.3	0
1801	Dithiols enhance the photovoltaic performance and stability of perovskite solar cells and modules by elongating the carrier lifetime. Materials Today Energy, 2023, 37, 101392.	4.7	Ο
1802	CsPblBr ₂ â€Based Bifacial Semitransparent Solar Cells for Allâ€Day Applications. Energy Technology, 2023, 11, .	3.8	0
1803	Optimizing Performance of Mixed Halide Perovskite MA _{0.61} FA _{0.37} Cs _{0.02} PbI _{2.88} Br _{0.12} based Solar Cells through Thickness and Defect Density: A Simulation Study. , 2023, , .		Ο

#	Article	IF	CITATIONS
1804	Buriedâ€Metalâ€Grid Electrodes for Efficient Parallelâ€Connected Perovskite Solar Cells. Advanced Materials, 2024, 36, .	21.0	0
1805	A Universal Strategy of Perovskite Ink ―Substrate Interaction to Overcome the Poor Wettability of a Selfâ€Assembled Monolayer for Reproducible Perovskite Solar Cells. Advanced Functional Materials, 2023, 33, .	14.9	3
1806	DFT calculations on heat capacity and Debye temperature of Cs2GeF6 perovskite under high temperature and pressure. AIP Conference Proceedings, 2023, , .	0.4	0
1807	Abinitio calculations of structural, electronic, and thermodynamic performance of Cs2GeF6 perovskite. AIP Conference Proceedings, 2023, , .	0.4	0
1808	Thermal diffused post-selenization for enhancing the photovoltaic performance of thermally evaporated Sb2Se3 solar cell. Ceramics International, 2023, 49, 36935-36941.	4.8	0
1809	Efficient flexible perovskite solar cells and modules using a stable SnO2-nanocrystal isopropanol dispersion. Nano Research, 0, , .	10.4	0
1810	A low-toxic, robust, and sensitive colorimetric sensor for the peroxide value of edible oils with CsPbBr3 NCs in ethyl acetate. Talanta, 2024, 267, 125209.	5.5	1
1811	The promise of metal-halide-perovskite solar photovoltaics: A brief review. MRS Bulletin, 2023, 48, 983-998.	3.5	2
1812	Halide Perovskites and Their Derivatives for Efficient, Highâ€Resolution Direct Radiation Detection: Design Strategies and Applications. Advanced Materials, 2024, 36, .	21.0	4
1813	An evolutionary variational autoencoder for perovskite discovery. Frontiers in Materials, 0, 10, .	2.4	0
1814	<i>Ab-initio</i> calculations of temperature dependent electronic structures of inorganic halide perovskite materials. Physical Chemistry Chemical Physics, 0, , .	2.8	1
1815	Cage polyamine molecule modulating the buried interface of tin oxide/perovskite in photovoltaic devices. Nano Energy, 2023, 118, 108939.	16.0	1
1816	Energy-carbon flow coupling analysis of solar photovoltaic(PV) system considering cost, policy and generation loss. , 2023, , .		0
1817	Multistep optimization for the electrodeposited mixed perovskite FA _{1â^'y} Cs _{y } PbBr _x I _{3â^'x} solar cells. Nanotechnology, 2024, 35, 015706.	2.6	0
1818	Formamidine formate as the multifunctional modulator at buried interface for efficient FAPbI3 perovskite solar cells. Nano Energy, 2023, 118, 108981.	16.0	2
1819	Dicyanobenzene passivated perovskite solar cells with enhanced efficiency and stability. Journal of Materials Chemistry C, O, , .	5.5	0
1820	Lightâ€Induced Frenkel Defect Pair Formation Can Lead to Phaseâ€Segregation of Otherwise Miscible Halide Perovskite Alloys. Advanced Energy Materials, 2023, 13, .	19.5	1
1821	Enhancing the Performance and Stability of Perovskite Solar Cells through the Introduction of the Multifunctional Additive 5â€Aminoâ€2â€Fluorobenzoic Acid. Solar Rrl, 2023, 7, .	5.8	0

#	Article	IF	CITATIONS
1822	Fabrication of all printed inverted perovskite solar cells with transfer printed electron transporting layers. Japanese Journal of Applied Physics, 0, , .	1.5	0
1823	Exploring the Effect of C ₆ H _{5-x} /F _x Br (x=0~3) Passivating Agent on Surface Properties at Different Termination: First principles. Physical Chemistry Chemical Physics, 0, , .	2.8	0
1824	Recent Progress in the Composites of Perovskite Nanocrystals and II-VI Quantum Dots: Their Synthesis, Applications, and Prospects. Current Nanoscience, 2023, 20, .	1.2	0
1825	Double Layer and High–Low Refractive Index Stacks Antireflecting Coatings for Multijunction Perovskite-on-Silicon Solar Cells. IEEE Journal of Photovoltaics, 2024, 14, 93-98.	2.5	1
1826	Nonadiabatic molecular dynamics study on effect of Ge/Sn alloy on hot carrier relaxation of CsPbBr ₃ perovskite. Wuli Xuebao/Acta Physica Sinica, 2024, 73, 028801.	0.5	0
1827	Study of a metal-halide perovskite CsPbBr ₃ thin film deposited on a ¹⁰ B layer for neutron detection. Journal Physics D: Applied Physics, 0, , .	2.8	0
1828	Encapsulation of Cs3Bi2Br9 perovskite photocatalyst with polythiophene for prolonged activity in oxidizing and humid environment. Applied Surface Science, 2024, 643, 158725.	6.1	1
1829	Ferrocene Derivatives for Improving the Efficiency and Stability of MAâ€Free Perovskite Solar Cells from the Perspective of Inhibiting Ion Migration and Releasing Film Stress. Advanced Science, 2023, 10, .	11.2	3
1830	Effect of electron irradiation on perovskite films and devices for novel space solar cells. Wuli Xuebao/Acta Physica Sinica, 2024, 73, 036102.	0.5	0
1831	In/Bi-based Direct- and Indirect-Gap Hybrid Double-Perovskite-Derived 1D Halides with Near-Unity Quantum Yield via Sb ³⁺ Doping. Chemistry of Materials, 0, , .	6.7	0
1832	Beyond lead: Progress in stable and non-toxic lower-dimensional perovskites for high-performance photodetection. Sustainable Materials and Technologies, 2023, 38, e00759.	3.3	0
1833	Leadâ€Free Halide Perovskite Materials and Optoelectronic Devices: Progress and Prospective. Advanced Functional Materials, 2024, 34, .	14.9	6
1834	A Halideâ€Based Perovskite CsGeX ₃ (XÂ=ÂCl, Br, and I) for Optoelectronic and Piezoelectric Applications. Advanced Theory and Simulations, 2024, 7, .	2.8	0
1835	Modulation of carrier conduction in CsPbBr3 perovskite quantum dots with band-aligned electron and hole acceptors. Journal of Chemical Physics, 2023, 159, .	3.0	0
1836	Electrodeposition in Perovskite Solar Cells: A Critical Review, New Insights, and Promising Paths to Future Industrial Applications. Advanced Materials Technologies, 2023, 8, .	5.8	2
1837	Post-Synthetic Doping and Ligand Engineering of Cs ₂ AgInCl ₆ Double Perovskite Nanocrystals. Journal of Physical Chemistry C, 2023, 127, 21849-21859.	3.1	1
1838	Spiro-OMeTAD doped with iodine pentoxide to enhance planar perovskite solar cell performance. Journal of Alloys and Compounds, 2024, 970, 172749.	5.5	0
1839	Single-Crystal Methylammonium-Free Perovskite Solar Cells with Efficiencies Exceeding 24% and High Thermal Stability. ACS Energy Letters, 2023, 8, 4915-4922.	17.4	1

#	Article	IF	CITATIONS
1840	Accommodative Organoammonium Cations in Aâ€Sites of Sb─In Halide Perovskite Derivatives for Tailoring BroadBand Photoluminescence with Xâ€Ray Scintillation and Whiteâ€Light Emission. Advanced Functional Materials, 2024, 34, .	14.9	1
1841	Exploring the synthesis, structure, and optoelectronic properties of lead-free halide perovskite Cs ₃ Bi ₂ I ₉ in single crystal and polycrystalline forms. Semiconductor Science and Technology, 2023, 38, 125007.	2.0	0
1842	Unusual Phase Behaviour for Organo-Halide Perovskite Nanoparticles Synthesized via Reverse Micelle Templating. Chemistry, 2023, 5, 2490-2512.	2.2	1
1843	Spherical cluster method for ground state determination of site-disordered materials: Application to AgxBiylx+3y. Computational Materials Science, 2024, 231, 112587.	3.0	1
1844	Ultrasensitive and Robust CsPbBr ₃ Single-Crystal X-ray Detectors Based on Interface Engineering. ACS Applied Materials & Interfaces, 2023, 15, 51370-51379.	8.0	0
1845	Chiralâ€Achiral Cations Intercalation Induced Leadâ€Free Chiralâ€Polar Hybrid Perovskites Enable Selfâ€Powered Xâ€Ray and Ultraviolet–Visible–Nearâ€Infrared Photo Detection. Small, 0, , .	10.0	1
1846	Self-supervised deep learning for tracking degradation of perovskite light-emitting diodes with multispectral imaging. Nature Machine Intelligence, 2023, 5, 1225-1235.	16.0	1
1847	Exciton–polaron interactions in metal halide perovskite nanocrystals revealed via two-dimensional electronic spectroscopy. Journal of Chemical Physics, 2023, 159, .	3.0	3
1848	Bayesian optimization approach to quantify the effect of input parameter uncertainty on predictions of numerical physics simulations. , 2023, 1, .		0
1849	Enhanced efficiency and stability of electron transport layer in perovskite tandem solar cells: Challenges and future perspectives. Solar Energy, 2023, 266, 112185.	6.1	0
1850	Investigation of optoelectronic properties of AgSbI4 using machine learning and first principles methods. Journal of Physics and Chemistry of Solids, 2024, 187, 111803.	4.0	0
1851	Incorporation of Liquid Metal Gallium into Carbon Electrode for Efficient Charge Transportation in Planar Perovskite Solar Cells. Solar Rrl, 0, , .	5.8	0
1852	Unique Perovskitizer N─Pb Bond Switching Induced Polar Photovoltaic Effect in Trilayered Hybrid Perovskite. Small, 2024, 20, .	10.0	1
1853	Benzotrithiopheneâ€Based Covalent Organic Frameworks: Synthesis and Application to Perovskite Solar Cells. Solar Rrl, 0, , .	5.8	0
1854	Exploring magnetism of lead-free halide double perovskites: A high-throughput first-principles study. Physical Review Materials, 2023, 7, .	2.4	1
1855	Robust hybrid bismuth perovskites as potential photocatalysts for overall water splitting. Nano Research, 0, , .	10.4	0
1856	Perovskite-based photodetector for real-time and quantitative monitoring of sports motion. IScience, 2023, 26, 108298.	4.1	0
1857	Lattice Distortion and Low-Frequency Anharmonic Phonons Suppress Charge Recombination in Lead Halide Perovskites upon Pseudohalide Doping: Time-Domain Ab Initio Analysis. Journal of Physical Chemistry Letters, 2023, 14, 10685-10692.	4.6	0

#	Article	IF	CITATIONS
1858	Machine learning-aided discovery of bismuth-based transition metal oxide double perovskites for solar cell applications. Solar Energy, 2024, 267, 112209.	6.1	1
1859	Improving the Conductivity of Amide-Based Small Molecules through Enhanced Molecular Packing and Their Application as Hole Transport Mediators in Perovskite Solar Cells. ACS Applied Energy Materials, 2023, 6, 11573-11582.	5.1	0
1860	Enhancing the perovskite solar cell performance by the interface modification of Zn–Sn–O compound heterostructures. Materials Advances, 2023, 4, 6704-6717.	5.4	0
1861	Investigation of the incorporation of C60 into PC61BM to enhance the photovoltaic performance of inverted-type perovskite solar cells based on MAPbI3. SDU Journal of Science, 2023, 18, 276-283.	0.3	0
1862	Cross-linking strategies for efficient and highly stable perovskite solar cells. Journal of Materials Chemistry C, 0, , .	5.5	0
1863	Controlling Electron Delocalization in Vanadiumâ€Based Hybrid Bronzes through Molecular Templation. Angewandte Chemie - International Edition, 2023, 62, .	13.8	0
1864	Research progress and challenges in extending the infra-red absorption of perovskite tandem solar cells. Nano Energy, 2024, 121, 109175.	16.0	0
1865	Self-assembled monolayers as hole-transporting materials for inverted perovskite solar cells. Molecular Systems Design and Engineering, 2023, 8, 1440-1455.	3.4	0
1866	Interaction of organic-inorganic hybrid perovskite electron system with lattice system. Materials Today Sustainability, 2024, 25, 100617.	4.1	0
1867	Rational Design, Synthesis, and Structure–Property Relationship Studies of a Library of Thermoplastic Polyurethane Films as an Effective and Scalable Encapsulation Material for Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2023, 15, 53935-53950.	8.0	0
1868	Interface passivation with Ti ₃ C ₂ T _{<i>x</i>} -MXene doped PMMA film for highly efficient and stable inverted perovskite solar cells. Journal of Materials Chemistry C, 0, , .	5.5	0
1869	Critical role of dopant in NiO _{<i>x</i>} hole transport layer for mitigating redox reactivity at NiO _{<i>x</i>} /absorber interface in mixed cation perovskite solar cells. Dalton Transactions, 0, , .	3.3	0
1870	Temperature and pressure induced structural transitions of lead iodide perovskites. Journal of Materials Chemistry A, 0, , .	10.3	1
1871	In Situ Polymerization of Cross‣inked Perovskite–Polymer Composites for Highly Stable and Efficient Perovskite Solar Cells. Advanced Energy Materials, 2024, 14, .	19.5	2
1872	Controlling Electron Delocalization in Vanadiumâ€Based Hybrid Bronzes through Molecular Templation. Angewandte Chemie, 2023, 135, .	2.0	0
1873	Optical and structural characterization of CsPb(I1-xBrx)3 nanomaterials prepared by the mechanochemical method. Optical Materials, 2023, 146, 114506.	3.6	0
1874	Electron-hole liquid formation in formamidinium lead bromide perovskite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> <mml:mrow> <mml:mrow> <mml:mi>F </mml:mi> <mml:mi Physical Review B, 2023, 108, .</mml:mi </mml:mrow></mml:mrow></mml:math 	>Axpmml:r	ni ≀ < mml:mi
1876	Applications of multifunctional metal–organic frameworks in perovskite photovoltaics: roles, advantages and prospects. Materials Chemistry Frontiers, 2024, 8, 869-879.	5.9	0

#	Article	IF	CITATIONS
1877	Interplay between Growth Mechanism, Materials Chemistry, and Band Gap Characteristics in Sputtered Thin Films of Chalcogenide Perovskite BaZrS ₃ . ACS Applied Energy Materials, 2023, 6, 11642-11653.	5.1	1
1878	Enhanced efficiency and stability of quasi two-dimensional perovskite solar cells via dual additives. Journal of Alloys and Compounds, 2024, 972, 172841.	5.5	1
1879	Post-Treatment-Free Dual-Interface Passivation via Facile 1D/3D Perovskite Heterojunction Construction. Jacs Au, 0, , .	7.9	0
1880	Lanthanide doped Cs2Ag1-xNaxBiCl6 as an efficient anti-counterfeiting and information encryption material. Ceramics International, 2024, 50, 5234-5241.	4.8	0
1881	Weak Dispersion of Exciton Landé Factor with Band Gap Energy in Lead Halide Perovskites: Approximate Compensation of the Electron and Hole Dependences. Small, 0, , .	10.0	3
1882	通è;‡5-氰基-4-甲é°åŸºå'ªå"'ç›é,盜é«~å•å°å^·ä»‹è§,é'™ é'›çŸ;å≇€~³èf½ç"µæ±çš"å‰ä¼æ€§èf½. Scier	ice6Cihina N	Materials, 20
1883	Formation of Dual Bands in Mixed-Halide Perovskites During Photoinduced Halide Segregation. ACS Energy Letters, 2024, 9, 56-63.	17.4	1
1884	Additive-Regulated One-Step Dynamic Spin-Coating for Fabricating High-Performance Perovskite Solar Cells under High Humidity Conditions. Journal of Materials Chemistry C, 0, , .	5.5	0
1885	Evaporable Fullerene Indanones with Controlled Amorphous Morphology as Electron Transport Layers for Inverted Perovskite Solar Cells. Journal of the American Chemical Society, 0, , .	13.7	1
1887	Hybrid Iodide Perovskites of Divalent Alkaline Earth and Lanthanide Elements. Journal of the American Chemical Society, 0, , .	13.7	0
1888	Toward Efficient and Fully Scalable Sputtered NiO _{<i>x</i>} â€Based Inverted Perovskite Solar Modules via Coâ€Ordinated Modification Strategies. Solar Rrl, 2024, 8, .	5.8	0
1889	Oxideâ€Halide Perovskite Composites for Simultaneous Recycling of Lead Zirconate Titanate Piezoceramics and Methylammonium Lead Iodide Solar Cells. Small Methods, 0, , .	8.6	1
1890	H/F substitution activating tunable dimensions and dielectric-optical properties in organic lead-bromide hybrids. Inorganic Chemistry Frontiers, 0, , .	6.0	0
1891	Exploring CsPbX ₃ (X = Cl, Br, I) Perovskite Nanocrystals in Amorphous Oxide Glasses: Innovations in Fabrication and Applications. Small, 0, , .	10.0	1
1892	First-principles prediction of optoelectronic and thermoelectric properties of novel materials A2PdCl6 for Photovoltaic Applications. Computational Condensed Matter, 2024, 38, e00869.	2.1	0
1894	Evolution of the Luminescence Properties of Single CsPbBr3 Perovskite Nanocrystals During Photodegradation. JETP Letters, 2023, 118, 560-567.	1.4	0
1895	Growth and Dispersion Control of SnO2 Nanocrystals Employing an Amino Acid Ester Hydrochloride in Solution Synthesis: Microstructures and Photovoltaic Applications. Materials, 2023, 16, 7649.	2.9	0
1897	Unraveling the Performance of Allâ€Inorganic Leadâ€Free CsSnI ₃ â€Based Perovskite Photovoltaic with Graphene Oxide Hole Transport Layer. Advanced Theory and Simulations, 2024, 7, .	2.8	0

#	Article	IF	CITATIONS
1898	Tuning Structure and Excitonic Properties of 2D Ruddlesden–Popper Germanium, Tin, and Lead Iodide Perovskites via Interplay between Cations. Journal of the American Chemical Society, 2023, 145, 28111-28123.	13.7	3
1899	New highly ï€-conjugated bisalkynyl-linked oligomers of heteroatom-substituted perylene diimides: Optical and electronic properties and performance in perovskite solar cells. Organic Electronics, 2024, 125, 106978.	2.6	0
1900	Lead-Bromide Hybrid Perovskites with Different Dimensions due to NH ₂ Position Variation Pyridine Ligand Methylene Bridge-CH ₂ . Materials Science Forum, 0, 1109, 41-50.	0.3	0
1901	Harnessing 2D Ruddlesden–Popper Perovskite with Polar Organic Cation for Ultrasensitive Multibit Nonvolatile Transistor-Type Photomemristors. ACS Nano, 0, , .	14.6	0
1902	Reconstructing subsurface lattice for stable perovskite photovoltaics. Joule, 2023, , .	24.0	0
1903	Broadband Tunability of Third Harmonic Upconversion in Pyridinium Lead Halides. ACS Photonics, 0, , .	6.6	Ο
1904	Rationalizing Performance Losses of Wide Bandgap Perovskite Solar Cells Evident in Data from the <i>Perovskite Database</i> . Advanced Energy Materials, 0, , .	19.5	0
1905	Hot Excitons Cool in Metal Halide Perovskite Nanocrystals as Fast as CdSe Nanocrystals. ACS Nano, 0, , .	14.6	0
1907	Preparation and characterization of SbSel thin films. Journal of Science: Advanced Materials and Devices, 2024, 9, 100664.	3.1	0
1908	2D Halide Perovskite Phase Formation Dynamics and Their Regulation by Coâ€Additives for Efficient Solar Cells. Advanced Materials Interfaces, 2024, 11, .	3.7	0
1909	Sulfonateâ€Containing Polyelectrolytes for Perovskite Modification: Chemical Configuration, Property, and Performance. Macromolecular Rapid Communications, 0, , .	3.9	0
1910	High-efficiency perovskite photodetectors using manganese dioxide oxidation Spiro-OMeTAD as hole transport layer. Ceramics International, 2024, 50, 9581-9590.	4.8	0
1911	Classical molecular dynamics simulations of CsPbBr3 perovskite quantum dots embedded sodium borosilicate glasses. Ceramics International, 2024, 50, 10183-10191.	4.8	0
1913	Intermediate Phase Engineering for Efficient and Stable All-Inorganic Perovskite Solar Cells. , 2024, 6, 345-352.		0
1914	Electronic Structure and Optoelectronic Properties of Halide Double Perovskites: Fundamental Insights and Design of a Theoretical Workflow. Chemistry of Materials, 0, , .	6.7	0
1915	Understanding the Effect of the Synthetic Method and Surface Chemistry on the Properties of CsPbBr3 Nanoparticles. Nanomaterials, 2024, 14, 81.	4.1	0
1916	Spin–orbital coupling in all-inorganic metal-halide perovskites: The hidden force that matters. Applied Physics Reviews, 2023, 10, .	11.3	0
1917	Inducing 2D Structure at Grainâ€Boundary via Triazinane Molecular Modification to Improve Stability of Inverted Perovskite Solar Cells. Solar Rrl, 2024, 8, .	5.8	0

#	Article	IF	CITATIONS
1918	Carrier Cooling in Lead Halide Perovskites: A Perspective on Hot Carrier Solar Cells. ACS Energy Letters, 0, , 298-307.	17.4	0
1919	Development of Solution-Processed Eco-Friendly Cs ₂ SnI ₆ Double Perovskite Thin-Film Solar Cell. IEEE Journal of Photovoltaics, 2024, 14, 265-271.	2.5	0
1921	Electrochemistry and band structure of semiconductors (TiO2, SnO2, ZnO): Avoiding pitfalls and textbook errors. Journal of Solid State Electrochemistry, 2024, 28, 829-845.	2.5	0
1922	Electron-donating functional groups strengthen ligand-induced chiral imprinting on CsPbBr3 quantum dots. Scientific Reports, 2024, 14, .	3.3	0
1923	Dynamics of self-hybridized exciton–polaritons in 2D halide perovskites. Light: Science and Applications, 2024, 13, .	16.6	0
1924	Boosting Efficiency and Stability of NiO _x â€Based Inverted Perovskite Solar Cells Through D–A Type Semiconductor Interface Modulation. Advanced Functional Materials, 0, , .	14.9	0
1925	Orientational order/disorder and network flexibility in deuterated methylammonium lead iodide perovskite by neutron total scattering. Journal of Materials Chemistry A, 2024, 12, 2771-2785.	10.3	0
1926	Single-Crystal-Assisted In Situ Phase Reconstruction Enables Efficient and Stable 2D/3D Perovskite Solar Cells. Journal of the American Chemical Society, 2024, 146, 1657-1666.	13.7	0
1927	Unveiling the Electronic Band Structure and Temporal Dynamics of Excited Carriers in Formamidinium Lead Bromide Perovskite. Advanced Optical Materials, 2024, 12, .	7.3	0
1928	Anomalous temperature dependence of photoluminescence lifetime in CsPbBr3 quantum dot-polymer film for optical thermometry. Materials Today Physics, 2024, 41, 101339.	6.0	0
1929	Compositional Transformation and Impurityâ€Mediated Optical Transitions in Coâ€Evaporated Cu ₂ AgBil ₆ Thin Films for Photovoltaic Applications. Advanced Energy Materials, 2024, 14, .	19.5	0
1930	Molecular structure effects of passivation agents on the performance of perovskite solar cells. Chemical Engineering Journal, 2024, 485, 148999.	12.7	0
1931	Surface Termination on Unstable Methylammoniumâ€based Perovskite Using a Steric Barrier for Improved Perovskite Solar Cells. Angewandte Chemie, 2023, 135, .	2.0	0
1932	Surface Termination on Unstable Methylammoniumâ€based Perovskite Using a Steric Barrier for Improved Perovskite Solar Cells. Angewandte Chemie - International Edition, 2023, 62, .	13.8	1
1933	Constructive Pyridine Molecular Configurations for Defect Passivation of Printable Perovskite Solar Cells. , 2023, , .		0
1934	Solution slot-die coating perovskite film crystalline growth observed by <i>in situ</i> GIWAXS/GISAXS. Wuli Xuebao/Acta Physica Sinica, 2024, 73, 063201.	0.5	0
1935	Multiâ€Color Magnetic Circularly Polarized Luminescence from Achiral Perovskite (Cs ⁺ Pb ²⁺ X ₃) Quantum Dots. European Journal of Inorganic Chemistry, 2024, 27, .	2.0	0
1937	Opto-electro-thermo-mechanical behaviours of perovskite plates. International Journal of Mechanical Sciences, 2024, 267, 109016.	6.7	0

#	Article	IF	CITATIONS
1938	Materials chemistry for metal halide perovskite photovoltaics. Bulletin of the Chemical Society of Japan, 2024, 97, .	3.2	1
1939	Enhancement of perovskite spontaneous emission by phase change materials. Journal Physics D: Applied Physics, 2024, 57, 155103.	2.8	0
1940	Leadâ€Free Allâ€Inorganic Cesium Bismuth Iodideâ€Based Perovskite Solar Cells: Recent Advances, Current Limitations, and Future Prospects. Solar Rrl, 2024, 8, .	5.8	0
1941	Machine learning guided rapid discovery of narrow-bandgap inorganic halide perovskite materials. Applied Physics A: Materials Science and Processing, 2024, 130, .	2.3	0
1942	Performance Evaluation of Printable Carbonâ€Based Perovskite Solar Cells Infiltrated with Reusable CsPbI ₃ :EuCl ₃ and Standard AVAâ€MAPbI ₃ . Solar Rrl, 2024, 8, .	5.8	0
1943	Enhancing the inherent stability of perovskite solar cells through chalcogenide-halide combinations. Energy and Environmental Science, 2024, 17, 1368-1386.	30.8	0
1944	Tuning the Optical and Structural Properties of Halide Perovskite by PbS Quantum Dot Additive Engineering for Enhanced Photovoltaic Performances. Solar Rrl, 2024, 8, .	5.8	0
1945	THzâ€Wave Absorption Properties of Organic–Inorganic Hybrid Perovskite Materials: A New Candidate for THz Sensors. Small Science, 2024, 4, .	9.9	0
1946	Material and Device Design of Flexible Perovskite Solar Cells for Nextâ€Generation Power Supplies. Advanced Materials, 0, , .	21.0	0
1947	Multifunctional ytterbium oxide buffer for perovskite solar cells. Nature, 2024, 625, 516-522.	27.8	3
1948	Efficiency Enhancement and Life Cycle Assessment of 2D/3D Mixed-Dimensional Tin Perovskite Plasmonic Solar Cells. ACS Applied Electronic Materials, 2024, 6, 737-747.	4.3	0
1949	Actuality and technology prospect of using perovskite quantum dot solar cells as the photovoltaic roof. Solar Energy, 2024, 269, 112359.	6.1	0
1950	Renewable energy: The future of photovoltaic energy. , 2024, , 373-396.		0
1951	Advances in Smart Photovoltaic Textiles. ACS Nano, 2024, 18, 3871-3915.	14.6	0
1952	First principal calculations for understanding physical properties and possible applications of vacancy ordered double perovskite Cs2ZrI6 (CZI). Computational Condensed Matter, 2024, 38, e00881.	2.1	0
1953	Two-dimensional complex metal halides: influence of restricted dimensionality on functional properties. Journal of Materials Chemistry A, 2024, 12, 5055-5079.	10.3	0
1954	Two-Dimensional Transition Metal Oxides (TMOs) for Solar Cell Applications. Engineering Materials, 2024, , 53-86.	0.6	0
1955	A robust buried interface in perovskite solar cells by pre-burying co-component molecule of perovskite. Surfaces and Interfaces, 2024, 46, 104007.	3.0	0

#	Article	IF	CITATIONS
1956	Defect passivation in methylammonium/bromine free inverted perovskite solar cells using charge-modulated molecular bonding. Nature Communications, 2024, 15, .	12.8	1
1957	Enabling Enhanced Photocatalytic Hydrogen Evolution in Water by Doping Cs ₂ SnBr ₆ Perovskite with Pt. ACS Energy Letters, 2024, 9, 653-661.	17.4	0
1958	Computational study of half-metallic behavior, optoelectronic and thermoelectric properties of new XAIN3 (X = K, Rb, Cs) perovskite materials. Journal of Physics and Chemistry of Solids, 2024, 188, 111899.	4.0	0
1959	Advanced Laser Nanofabrication Technologies for Perovskite Photonics. Advanced Optical Materials, 2024, 12, .	7.3	0
1960	Triammonium Molecular Tripods as Organic Building Blocks for Hybrid Perovskite Solar Cells. Small Structures, 2024, 5, .	12.0	0
1961	Time-Resolved Dynamics of Metal Halide Perovskite under High Pressure: Recent Progress and Challenges. Journal of Physical Chemistry Letters, 2024, 15, 1623-1635.	4.6	0
1962	Limitations and Progresses in Carbonâ€Based Cesium Lead Halide Perovskite Solar Cells. ChemSusChem, 0, , .	6.8	0
1963	Metal halide perovskite-based photocatalysts for organic pollutants degradation: Advances, challenges, and future directions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2024, 687, 133387.	4.7	0
1964	Dimethylamine oxalate manipulating CsPbI3 perovskite film crystallization process for high efficiency carbon electrode based perovskite solar cells. Journal of Energy Chemistry, 2024, 93, 221-228.	12.9	0
1965	Fabrication of a robust organic–inorganic perovskite nanoparticle dispersion layer on a glass surface. Ceramics International, 2024, 50, 14113-14117.	4.8	0
1966	Forming enlarged grain and fixed boundary via a two-step surface modification to achieve stable inverted perovskite solar cells. Chemical Engineering Journal, 2024, 483, 149382.	12.7	0
1967	Room-Temperature Processed Annealing-Free Printable Carbon-Based Mesoscopic Perovskite Solar Cells with 17.34% Efficiency. ACS Applied Materials & Interfaces, 2024, 16, 7265-7274.	8.0	0
1968	Defect chemistry for extrinsic doping in ductile semiconductor α-Ag2S. Journal of Materiomics, 2024, , .	5.7	0
1969	Recent Trends and Challenges in Lead-Free Perovskite Solar Cells: A Critical Review. ACS Applied Energy Materials, 2024, 7, 1382-1397.	5.1	0
1970	Advancements and Prospects in Perovskite Solar Cells: From Hybrid to All-Inorganic Materials. Nanomaterials, 2024, 14, 332.	4.1	0
1971	Highâ€Bandgap Perovskites for Efficient Indoor Light Harvesting. Advanced Energy and Sustainability Research, 0, , .	5.8	0
1972	First principles studies of some polymer–PCBM complexes for PV cells. Journal of Physics and Chemistry of Solids, 2024, 188, 111932.	4.0	0
1973	Highly stable CsPbBr ₃ perovskite phases from new lead β-diketonate glyme adducts. Dalton Transactions, 2024, 53, 5360-5372.	3.3	0

#	Article	IF	CITATIONS
1974	Emerging trends in low band gap perovskite solar cells: materials, device architectures, and performance optimization. Molecular Physics, 0, , .	1.7	0
1975	Highly efficient lead-free silver bismuth iodide (Ag3Bil6) rudorffite solar cells with novel device architecture: A numerical study. Materials Today Communications, 2024, 38, 108347.	1.9	0
1976	Investigation of high-pressure effect on the physical properties of FrNBr3 (N Ca, Sr) non-toxic halide perovskites. Materials Science in Semiconductor Processing, 2024, 174, 108252.	4.0	0
1977	A non-fullerene acceptor as an interfacial modified layer for enhancing efficiency and stability of inverted perovskite solar cells. Journal of Materials Chemistry C, 2024, 12, 3482-3489.	5.5	0
1978	Tuning the thermoelectric and optoelectronic attributes of lead-free novel fluoroperovskites Cs2BB'F6 (B = Rb, In, Na and B'=Ir, As, Rh): A first-principles investigation. Journal of Physics and Chemistry of Solids, 2024, 190, 111934.	4.0	0
1979	Fabrication of Highly Efficient and Ambient Stable Planar MAPbl ₃ Perovskite Solar Cells via Defect Passivation through Crosslinking Strategy. Advanced Engineering Materials, 2024, 26, .	3.5	0
1980	Structure and Charge Carrier Separation Promotion Effects of Antiphase Boundaries in Cesium Lead Bromide. Journal of Physical Chemistry Letters, 2024, 15, 2255-2261.	4.6	0
1981	Coherent exciton-lattice dynamics in a 2D metal organochalcogenolate semiconductor. Matter, 2024, 7, 1612-1630.	10.0	0
1982	Data driven high quantum yield halide perovskite phosphors design and fabrication. Materials Today, 2024, , .	14.2	0
1983	Fullâ€Spectral Response Perovskite Solar Cells Through Integration of MXene Modified Nearâ€Infrared Organic Heterojunction and Waveguideâ€Structure Quantum utting Down onverter. Advanced Energy Materials, 2024, 14, .	19.5	0
1984	A new type of core-shell nanowire array structured quantum dot-composite perovskite solar cell with near full-spectrum absorption. Physica E: Low-Dimensional Systems and Nanostructures, 2024, 160, 115937.	2.7	0
1985	Study of the electrical properties of large-scale electroluminescent perovskite panels. AIP Conference Proceedings, 2024, , .	0.4	0
1986	Halide Perovskite Materials for Photovoltaics and Lighting. Advances in Chemical and Materials Engineering Book Series, 2024, , 126-146.	0.3	0
1987	A review of two-dimensional inorganic materials: Types, properties, and their optoelectronic applications. Progress in Solid State Chemistry, 2024, , 100443.	7.2	0
1988	Constructing Hybrid Semiconductor Thinâ \in Films for Advanced Photovoltaics. ChemistrySelect, 2024, 9, .	1.5	0
1989	Development of Halide Perovskite Photovoltaic Devices Towards High Voltage Performance. , 2022, , .		0
1990	Color/Spectral Stability of Mixed Halide Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 0, , .	14.9	0
1991	Chronological Evolution of Stability in Hybrid Halide Perovskite Solar Cells. Solar Rrl, 2024, 8, .	5.8	0

#	Article	IF	CITATIONS
1992	A Transpiration-Driven Electrokinetic Power Generator with a Salt Pathway for Extended Service Life in Saltwater. Langmuir, 2024, 40, 5183-5194.	3.5	0
1993	Simulation and optimization of triple cation Perovskite solar cell using SCAPS-1D. , 2024, 189, 207819.		0
1994	Coherent Carrier Spin Dynamics in FAPbBr ₃ Perovskite Crystals. Journal of Physical Chemistry Letters, 2024, 15, 2893-2903.	4.6	0
1996	Theoretical investigation of structural, electronic, elastic, and optical properties of rubidium-based perovskites RbSrX3 (XÂ=ÂCl, Br) for optoelectronic device applications – A DFT study. Physica B: Condensed Matter, 2024, 682, 415858.	2.7	0
1997	Self-Trapped Excitons in Metal-Halide Perovskites Investigated by Time-Dependent Density Functional Theory. Journal of Physical Chemistry Letters, 2024, 15, 3229-3237.	4.6	0
1998	Variable Mechanical Properties in Layered Copper Bromide Hybrid Solids Based on Configuration of Organic Cations. Inorganic Chemistry, 2024, 63, 6026-6032.	4.0	0
1999	Unconventional perovskite-to-perovskite tandem cell designed by stacking with large-gap phosphonium-based analogs. Materials Today Energy, 2024, 42, 101556.	4.7	0
2000	Diffusion-Dominated Luminescence Dynamics of CsPbBr ₃ Studied Using Cathodoluminescence and Microphotoluminescence Spectroscopy. Nano Letters, 2024, 24, 3971-3977.	9.1	0
2001	Analysis of stable, inorganic, lead-free cesium titanium iodide perovskite and solar cell simulation. Bulletin of Materials Science, 2024, 47, .	1.7	0
2002	Molecular Engineering of 2D Spacer Cations to Achieve Efficient and Stable 2D/3D Perovskite Solar Cells. Solar Rrl, 2024, 8, .	5.8	0
2003	Improving Device-to-Device Reproducibility of Light-Emitting Diodes Based on Layered Halide Perovskites. Electronics (Switzerland), 2024, 13, 1039.	3.1	0
2005	Healing the Buried Interface by a Plant-Derived Green Passivator for Carbon-Based CsPblBr ₂ Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2024, 16, 14974-14983.	8.0	0
2006	APbI ₃ -A ₂ AgBiI ₆ Double-Layer Perovskite Film for a Self-Powered and High-Stability X-ray Detector. ACS Applied Materials & Interfaces, 2024, 16, 16474-16481.	8.0	0
2007	Beyond lead halide perovskites: Crystal structure, bandgaps, photovoltaic properties and future stance of lead-free halide double perovskites. Nano Energy, 2024, 125, 109523.	16.0	0
2008	Narrow Bandgap Metal Halide Perovskites for All-Perovskite Tandem Photovoltaics. Chemical Reviews, 2024, 124, 4079-4123.	47.7	0
2009	Multi-functional ion-pairing additive for efficient quasi-2D perovskite light-emitting diodes and solar cells. Chemical Engineering Journal, 2024, 487, 150596.	12.7	0