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645	Origin and elimination of photocurrent hysteresis by fullerene passivation in CH3NH3PbI3 planar heterojunction solar cells. 2014 , 5, 5784		2089
644	CHNHPbIEbased planar solar cells with magnetron-sputtered nickel oxide. 2014, 6, 22862-70		180
643	A swivel-cruciform thiophene based hole-transporting material for efficient perovskite solar cells. Journal of Materials Chemistry A, 2014 , 2, 6305-6309	13	156
642	Effect of Annealing Temperature on Film Morphology of OrganicIhorganic Hybrid Pervoskite Solid-State Solar Cells. 2014 , 24, 3250-3258		773
641	Highly ordered mesoporous carbon for mesoscopic CH3NH3PbI3/TiO2 heterojunction solar cell. Journal of Materials Chemistry A, 2014 , 2, 8607	13	80
640	Organohalide lead perovskites for photovoltaic applications. 2014 , 7, 2448-2463		1049
639	Modified two-step deposition method for high-efficiency TiO2/CH3NH3PbI3 heterojunction solar cells. 2014 , 6, 9711-8		153
638	CH3NH3Cl-Assisted One-Step Solution Growth of CH3NH3PbI3: Structure, Charge-Carrier Dynamics, and Photovoltaic Properties of Perovskite Solar Cells. 2014 , 118, 9412-9418		461
637	Recombination Study of Combined Halides (Cl, Br, I) Perovskite Solar Cells. 2014 , 5, 1628-35		345
636	Advancements in perovskite solar cells: photophysics behind the photovoltaics. 2014 , 7, 2518-2534		605
635	Solid-State Mesostructured Perovskite CH3NH3PbI3 Solar Cells: Charge Transport, Recombination, and Diffusion Length. 2014 , 5, 490-4		244
634	Role of the Selective Contacts in the Performance of Lead Halide Perovskite Solar Cells. 2014 , 5, 680-5		527
633	Cesium carbonate as a surface modification material for organicIhorganic hybrid perovskite solar cells with enhanced performance. 2014 , 4, 60131-60134		29
632	Influence of the orientation of methylammonium lead iodide perovskite crystals on solar cell performance. 2014 , 2, 081508		82
631	Nickel-Cathoded Perovskite Solar Cells. 2014 , 118, 25878-25883		50
630	Heterojunction modification for highly efficient organic-inorganic perovskite solar cells. <i>ACS Nano</i> , 2014 , 8, 12701-9	16.7	546
629	Compact layer free perovskite solar cells with 13.5% efficiency. <i>Journal of the American Chemical Society</i> , 2014 , 136, 17116-22	16.4	361

(2014-2014)

628	Nanowires of methylammonium lead iodide (CH3NH3PbI3) prepared by low temperature solution-mediated crystallization. 2014 , 14, 6761-6		221
627	Fabrication and encapsulation of perovskites sensitized solid state solar cells. 2014 ,		5
626	Improved charge transport of Nb-doped TiO2 nanorods in methylammonium lead iodide bromide perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 19616-19622	13	117
625	An all-carbon counter electrode for highly efficient hole-conductor-free organo-metal perovskite solar cells. 2014 , 4, 52825-52830		158
624	Low temperature TiOx compact layer by chemical bath deposition method for vapor deposited perovskite solar cells. 2014 ,		2
623	A strategy to reduce the angular dependence of a dye-sensitized solar cell by coupling to a TiO2 nanotube photonic crystal. 2014 , 6, 13060-7		18
622	Inkjet Printing and Instant Chemical Transformation of a CH3NH3PbI3/Nanocarbon Electrode and Interface for Planar Perovskite Solar Cells. 2014 , 126, 13455-13459		98
621	A hydrophobic hole transporting oligothiophene for planar perovskite solar cells with improved stability. 2014 , 50, 11196-9		235
620	A fast deposition-crystallization procedure for highly efficient lead iodide perovskite thin-film solar cells. 2014 , 53, 9898-903		1104
619	The light and shade of perovskite solar cells. 2014 , 13, 838-42		1600
618	Perovskite solar cells: Continuing to soar. 2014 , 13, 845-6		183
618	Perovskite solar cells: Continuing to soar. 2014 , 13, 845-6 Parameters Affecting I-V Hysteresis of CH3NH3PbI3 Perovskite Solar Cells: Effects of Perovskite Crystal Size and Mesoporous TiO2 Layer. 2014 , 5, 2927-34		183 885
	Parameters Affecting I-V Hysteresis of CH3NH3PbI3 Perovskite Solar Cells: Effects of Perovskite		<u> </u>
617	Parameters Affecting I-V Hysteresis of CH3NH3PbI3 Perovskite Solar Cells: Effects of Perovskite Crystal Size and Mesoporous TiO2 Layer. 2014 , 5, 2927-34 Environmentally responsible fabrication of efficient perovskite solar cells from recycled car		885
617	Parameters Affecting I-V Hysteresis of CH3NH3PbI3 Perovskite Solar Cells: Effects of Perovskite Crystal Size and Mesoporous TiO2 Layer. 2014 , 5, 2927-34 Environmentally responsible fabrication of efficient perovskite solar cells from recycled car batteries. 2014 , 7, 3659-3665 Extremely Slow Photoconductivity Response of CH3NH3PbI3 Perovskites Suggesting Structural		885 79
617616615	Parameters Affecting I-V Hysteresis of CH3NH3PbI3 Perovskite Solar Cells: Effects of Perovskite Crystal Size and Mesoporous TiO2 Layer. 2014, 5, 2927-34 Environmentally responsible fabrication of efficient perovskite solar cells from recycled car batteries. 2014, 7, 3659-3665 Extremely Slow Photoconductivity Response of CH3NH3PbI3 Perovskites Suggesting Structural Changes under Working Conditions. 2014, 5, 2662-9 A Fast Deposition-Crystallization Procedure for Highly Efficient Lead Iodide Perovskite Thin-Film	13	885 79 277
617616615614	Parameters Affecting I-V Hysteresis of CH3NH3PbI3 Perovskite Solar Cells: Effects of Perovskite Crystal Size and Mesoporous TiO2 Layer. 2014, 5, 2927-34 Environmentally responsible fabrication of efficient perovskite solar cells from recycled car batteries. 2014, 7, 3659-3665 Extremely Slow Photoconductivity Response of CH3NH3PbI3 Perovskites Suggesting Structural Changes under Working Conditions. 2014, 5, 2662-9 A Fast Deposition-Crystallization Procedure for Highly Efficient Lead Iodide Perovskite Thin-Film Solar Cells. 2014, 126, 10056-10061 Efficient planar-heterojunction perovskite solar cells achieved via interfacial modification of a	13	885 79 277 630

610	Hysteresis and transient behavior in currentMoltage measurements of hybrid-perovskite absorber solar cells. 2014 , 7, 3690-3698		1006
609	Enhanced photoluminescence and solar cell performance via Lewis base passivation of organic-inorganic lead halide perovskites. <i>ACS Nano</i> , 2014 , 8, 9815-21	16.7	1194
608	Inkjet printing and instant chemical transformation of a CH3NH3PbI3/nanocarbon electrode and interface for planar perovskite solar cells. 2014 , 53, 13239-43		300
607	Electrochemical Design of Nanostructured ZnO Charge Carrier Layers for Efficient Solid-State Perovskite-Sensitized Solar Cells. 2014 , 4, 1400932		105
606	Perovskite solar cells involving poly(tetraphenylbenzidine)s: investigation of hole carrier mobility, doping effects and photovoltaic properties. 2014 , 4, 43550-43559		25
605	Elucidating Transport-Recombination Mechanisms in Perovskite Solar Cells by Small-Perturbation Techniques. 2014 , 118, 22913-22922		155
604	Lead-free halide perovskite solar cells with high photocurrents realized through vacancy modulation. 2014 , 26, 7122-7		737
603	Incorporation of Cl into sequentially deposited lead halide perovskite films for highly efficient mesoporous solar cells. 2014 , 6, 13854-60		70
602	Organo-metal halide perovskite-based solar cells with CuSCN as the inorganic hole selective contact. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 12754-12760	13	157
601	A thin pristine non-triarylamine hole-transporting material layer for efficient CH3NH3PbI3 perovskite solar cells. 2014 , 4, 32918		35
600	Hole-transporting small molecules based on thiophene cores for high efficiency perovskite solar cells. 2014 , 7, 3420-5		122
599	Slow Dynamic Processes in Lead Halide Perovskite Solar Cells. Characteristic Times and Hysteresis. 2014 , 5, 2357-63		556
598	Novel hole transporting materials based on triptycene core for high efficiency mesoscopic perovskite solar cells. 2014 , 5, 2702-2709		160
597	Laminated carbon nanotube networks for metal electrode-free efficient perovskite solar cells. <i>ACS Nano</i> , 2014 , 8, 6797-804	16.7	371
596	Anomalous Hysteresis in Perovskite Solar Cells. 2014 , 5, 1511-5		1951
595	Hole-Conductor-Free Mesoscopic TiO2/CH3NH3PbI3 Heterojunction Solar Cells Based on Anatase Nanosheets and Carbon Counter Electrodes. 2014 , 5, 2160-4		211
594	Theory of Hydrogen Migration in OrganicIhorganic Halide Perovskites. 2015 , 127, 12614-12618		7
593	Organometal Halide Perovskites for Photovoltaic Applications. 2015 , 535-566		7

(2015-2015)

592	Intrinsic slow charge response in the perovskite solar cells: Electron and ion transport. 2015 , 107, 163901	33
591	Stable and Efficient Perovskite Solar Cells Based on Titania Nanotube Arrays. 2015 , 11, 5533-9	69
590	A Smooth CH3NH3PbI3 Film via a New Approach for Forming the PbI2 Nanostructure Together with Strategically High CH3NH3I Concentration for High Efficient Planar-Heterojunction Solar Cells. 2015 , 5, 1501354	193
589	Copper(I) Iodide as Hole-Conductor in Planar Perovskite Solar Cells: Probing the Origin of JW Hysteresis. 2015 , 25, 5650-5661	224
588	Stability of Metal Halide Perovskite Solar Cells. 2015 , 5, 1500963	861
587	Theory of hydrogen migration in organic-inorganic halide perovskites. 2015 , 54, 12437-41	112
586	Charge Accumulation and Hysteresis in Perovskite-Based Solar Cells: An Electro-Optical Analysis. 2015 , 5, 1500829	196
585	The Significance of Ion Conduction in a Hybrid OrganicIhorganic Lead-Iodide-Based Perovskite Photosensitizer. 2015 , 127, 8016-8021	122
584	Facile Synthesis of a Furan-Arylamine Hole-Transporting Material for High-Efficiency, Mesoscopic Perovskite Solar Cells. 2015 , 21, 15113-7	45
583	16.1% Efficient Hysteresis-Free Mesostructured Perovskite Solar Cells Based on Synergistically Improved ZnO Nanorod Arrays. 2015 , 5, 1500568	194
582	Low-Temperature and Hysteresis-Free Electron-Transporting Layers for Efficient, Regular, and Planar Structure Perovskite Solar Cells. 2015 , 5, 1501056	62
581	Transient Response of Organo-Metal-Halide Solar Cells Analyzed by Time-Resolved Current-Voltage Measurements. 2015 , 2, 1101-1115	13
580	Perovskite Solar Cells: Potentials, Challenges, and Opportunities. 2015 , 2015, 1-13	47
579	Solution-Processed Planar Perovskite Solar Cell Without a Hole Transport Layer. 2015 , 7, 12015-21	39
578	Efficiency Enhancement of Inverted Structure Perovskite Solar Cells via Oleamide Doping of PCBM Electron Transport Layer. 2015 , 7, 13659-65	108
577	Study on hole-transport-material-free planar TiO2/CH3NH3PbI3 heterojunction solar cells: the simplest configuration of a working perovskite solar cell. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 1490 $\frac{1}{2}$ 149	00 ³⁹
576	Efficient and non-hysteresis CH3NH3PbI3/PCBM planar heterojunction solar cells. 2015, 24, 106-112	89
575	Temperature-assisted controlling morphology and charge transport property for highly efficient perovskite solar cells. 2015 , 15, 540-548	73

574	Zero-dipole molecular organic cations in mixed organic-inorganic halide perovskites: possible chemical solution for the reported anomalous hysteresis in the current-voltage curve measurements. 2015 , 26, 442001	33
573	Kesterite Cu2ZnSnS4 as a Low-Cost Inorganic Hole-Transporting Material for High-Efficiency Perovskite Solar Cells. 2015 , 7, 28466-73	120
572	Exploring the performance limiting parameters of perovskite solar cell through experimental analysis and device simulation. 2015 , 122, 773-782	32
57 ¹	Understanding the rate-dependent JN hysteresis, slow time component, and aging in CH3NH3PbI3 perovskite solar cells: the role of a compensated electric field. 2015 , 8, 995-1004	998
570	Loading of mesoporous titania films by CH3NH3PbI3 perovskite, single step vs. sequential deposition. 2015 , 51, 4603-6	61
569	Insights into Planar CH3NH3PbI3 Perovskite Solar Cells Using Impedance Spectroscopy. 2015 , 119, 4444-4453	137
568	Interfaces in perovskite solar cells. 2015 , 11, 2472-86	293
567	OrganicIhorganic halide perovskite based solar cells Irevolutionary progress in photovoltaics. 2015 , 2, 315-335	55
566	M13 Virus-Enabled Synthesis of Titanium Dioxide Nanowires for Tunable Mesoporous Semiconducting Networks. 2015 , 27, 1531-1540	35
565	The effect of external electric field on the performance of perovskite solar cells. 2015 , 18, 107-112	30
564	The size effect of TiO2 nanoparticles on a printable mesoscopic perovskite solar cell. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 9103-9107	137
563	Characterization of Planar Lead Halide Perovskite Solar Cells by Impedance Spectroscopy, Open-Circuit Photovoltage Decay, and Intensity-Modulated Photovoltage/Photocurrent Spectroscopy. 2015 , 119, 3456-3465	310
562	Co-adsorbents: a key component in efficient and robust dye-sensitized solar cells. 2015 , 8, 588-99	42
561	NiO/MAPbI(3-x)Clx/PCBM: a model case for an improved understanding of inverted mesoscopic solar cells. 2015 , 7, 4283-9	52
560	Atmospheric effects on the photovoltaic performance of hybrid perovskite solar cells. 2015, 137, 6-14	101
559	Improving the Long-Term Stability of Perovskite Solar Cells with a Porous Al2O3 Buffer Layer. 2015 , 6, 432-7	301
558	Comparative study of vapor- and solution-crystallized perovskite for planar heterojunction solar cells. 2015 , 7, 3382-8	54
557	Dynamic interface charge governing the current-voltage hysteresis in perovskite solar cells. Physical Chemistry Chemical Physics, 2015, 17, 9613-8	81

556	Efficient and balanced charge transport revealed in planar perovskite solar cells. 2015, 7, 4471-5		105
555	Non-Thermal Annealing Fabrication of Efficient Planar Perovskite Solar Cells with Inclusion of NH4Cl. 2015 , 27, 1448-1451		114
554	Enhancing the photocurrent of perovskite solar cells via modification of the TiO2/CH3NH3PbI3 heterojunction interface with amino acid. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 9133-9136	13	85
553	Identifying the optimum thickness of electron transport layers for highly efficient perovskite planar solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 16445-16452	13	70
552	Efficient and low-temperature processed perovskite solar cells based on a cross-linkable hybrid interlayer. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 18483-18491	13	50
551	Efficient electron-blocking layer-free planar heterojunction perovskite solar cells with a high open-circuit voltage. 2015 , 26, 265-272		77
550	Solvent-assisted growth of organicIhorganic hybrid perovskites with enhanced photovoltaic performances. 2015 , 143, 360-368		14
549	Interface engineering for high-performance perovskite hybrid solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 19205-19217	13	127
548	Energetics and dynamics in organic-inorganic halide perovskite photovoltaics and light emitters. 2015 , 26, 342001		61
547	Effects of organic inorganic hybrid perovskite materials on the electronic properties and morphology of poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) and the photovoltaic performance of planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 15897-15904	13	71
546	Perovskite Solar Cells with Near 100% Internal Quantum Efficiency Based on Large Single Crystalline Grains and Vertical Bulk Heterojunctions. <i>Journal of the American Chemical Society</i> , 2015 , 137, 9210-3	16.4	210
545	Ionic transport in hybrid lead iodide perovskite solar cells. 2015 , 6, 7497		1649
544	Controlling CH3NH3PbI(3-x)Cl(x) Film Morphology with Two-Step Annealing Method for Efficient Hybrid Perovskite Solar Cells. 2015 , 7, 16330-7		76
543	Study of planar heterojunction perovskite photovoltaic cells using compact titanium oxide by chemical bath deposition. 2015 , 54, 08KF02		5
542	Under the spotlight: The organicIhorganic hybrid halide perovskite for optoelectronic applications. 2015 , 10, 355-396		700
541	Recent progress in efficient hybrid lead halide perovskite solar cells. 2015 , 16, 036004		72
540	Photovoltaic behaviour of lead methylammonium triiodide perovskite solar cells down to 80 K. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 11762-11767	13	118
539	Planar CH3NH3PbI3 Perovskite Solar Cells with Constant 17.2% Average Power Conversion Efficiency Irrespective of the Scan Rate. 2015 , 27, 3424-30		401

538	A dopant-free organic hole transport material for efficient planar heterojunction perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 11940-11947	13	182
537	High-performance perovskite photoanode enabled by Ni passivation and catalysis. 2015 , 15, 3452-7		93
536	Effects of Seed Layer on Growth of ZnO Nanorod and Performance of Perovskite Solar Cell. 2015 , 119, 10321-10328		130
535	Mechanism of charge recombination in meso-structured organic-inorganic hybrid perovskite solar cells: A macroscopic perspective. 2015 , 117, 155504		15
534	Capacitive Dark Currents, Hysteresis, and Electrode Polarization in Lead Halide Perovskite Solar Cells. 2015 , 6, 1645-52		371
533	Unraveling the Effect of PbI2 Concentration on Charge Recombination Kinetics in Perovskite Solar Cells. 2015 , 2, 589-594		86
532	Optoelectronic Studies of Methylammonium Lead Iodide Perovskite Solar Cells with Mesoporous TiOESeparation of Electronic and Chemical Charge Storage, Understanding Two Recombination Lifetimes, and the Evolution of Band Offsets during J-V Hysteresis. <i>Journal of the American Chemical Society</i> , 2015 , 137, 5087-99	16.4	227
531	Hole selective NiO contact for efficient perovskite solar cells with carbon electrode. 2015 , 15, 2402-8		357
530	Ferroelectricity of CH3NH3PbI3 Perovskite. 2015 , 6, 1155-61		260
529	Improved hole-transporting property via HAT-CN for perovskite solar cells without lithium salts. 2015 , 7, 6406-11		31
528	Ultrasensitive solution-processed perovskite hybrid photodetectors. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 6600-6606	7.1	88
527	CuSCN-Based Inverted Planar Perovskite Solar Cell with an Average PCE of 15.6%. 2015 , 15, 3723-8		434
526	Solid-State Physics Perspective on Hybrid Perovskite Semiconductors. 2015 , 119, 10161-10177		175
525	The expanding world of hybrid perovskites: materials properties and emerging applications. 2015 , 5, 7-26		105
524	Light Harvesting and Charge Recombination in CH3NH3PbI3 Perovskite Solar Cells Studied by Hole Transport Layer Thickness Variation. <i>ACS Nano</i> , 2015 , 9, 4200-9	16.7	167
523	Performance enhancement of perovskite-sensitized mesoscopic solar cells using Nb-doped TiO2 compact layer. 2015 , 8, 1997-2003		88
522	Efficient Solution-Processed Bulk Heterojunction Perovskite Hybrid Solar Cells. 2015 , 5, 1402024		90
521	Enhanced photovoltaic performance of dye-sensitized solar cells based on NaYF4:Yb(3+), Er(3+)-incorporated nanocrystalline TiO2 electrodes. 2015 , 451, 15-20		12

(2015-2015)

520	Vapor-Assisted Solution Process. 2015 , 7, 9066-71		73
519	Kinetics of Ion Transport in Perovskite Active Layers and Its Implications for Active Layer Stability. Journal of the American Chemical Society, 2015 , 137, 13130-7	16.4	308
518	Metal electrode-free perovskite solar cells with transfer-laminated conducting polymer electrode. 2015 , 23, A83-91		47
517	Morphology-controlled CH3NH3PbI3 films by hexane-assisted one-step solution deposition for hybrid perovskite mesoscopic solar cells with high reproductivity. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 22839-22845	13	45
516	NiO nanosheets as efficient top hole transporters for carbon counter electrode based perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 24121-24127	13	81
515	Engineering of hole-selective contact for low temperature-processed carbon counter electrode-based perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 24272-24280	13	68
514	First-Principles Study of Ion Diffusion in Perovskite Solar Cell Sensitizers. <i>Journal of the American Chemical Society</i> , 2015 , 137, 10048-51	16.4	456
513	The influence of different mask aperture on the open-circuit voltage measurement of perovskite solar cells. 2015 , 7, 043104		12
512	The effect of processing additives for charge generation, recombination, and extraction in bulk heterojunction layers of all-polymer photovoltaics. 2015 , 107, 063302		5
511	The Significance of Ion Conduction in a Hybrid Organic-Inorganic Lead-Iodide-Based Perovskite Photosensitizer. 2015 , 54, 7905-10		372
510	Dopants Control Electron-Hole Recombination at Perovskite-TiOIInterfaces: Ab Initio Time-Domain Study. <i>ACS Nano</i> , 2015 , 9, 11143-55	16.7	103
509	Doping of TiO2 for sensitized solar cells. 2015 , 44, 8326-49		268
508	Temperature-Dependent Polarization in Field-Effect Transport and Photovoltaic Measurements of Methylammonium Lead Iodide. 2015 , 6, 3565-71		89
507	Improved performance and stability of perovskite solar cells by crystal crosslinking with alkylphosphonic acid Emmonium chlorides. 2015 , 7, 703-11		898
506	Highly efficient planar perovskite solar cells with a TiO2/ZnO electron transport bilayer. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 19288-19293	13	118
505	Universal Features of Electron Dynamics in Solar Cells with TiO2 Contact: From Dye Solar Cells to Perovskite Solar Cells. 2015 , 6, 3923-30		40
504	Ionic liquid-assisted growth of methylammonium lead iodide spherical nanoparticles by a simple spin-coating method and photovoltaic properties of perovskite solar cells. 2015 , 5, 77495-77500		44
503	Efficient screen printed perovskite solar cells based on mesoscopic TiO2/Al2O3/NiO/carbon architecture. 2015 , 17, 171-179		225

502	High efficiency hysteresis-less inverted planar heterojunction perovskite solar cells with a solution-derived NiOx hole contact layer. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 24495-24503	13	107
501	Material Innovation in Advancing Organometal Halide Perovskite Functionality. 2015 , 6, 4862-72		35
500	Control of I-V hysteresis in CH3NH3PbI3 perovskite solar cell. 2015 , 6, 4633-9		379
499	First-Principles Calculation of the Bulk Photovoltaic Effect in CH3NH3PbI3 and CH3NH3PbI(3-x)Cl(x). 2015 , 6, 31-7		155
498	High performance planar heterojunction perovskite solar cells with fullerene derivatives as the electron transport layer. 2015 , 7, 1153-9		90
497	Layer-by-layer growth of CHNHPbI(3-x)Clx for highly efficient planar heterojunction perovskite solar cells. 2015 , 27, 1053-9		192
496	An efficient hole transport material composite based on poly(3-hexylthiophene) and bamboo-structured carbon nanotubes for high performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 2784-2793	13	116
495	High-Efficiency Solution-Processed Planar Perovskite Solar Cells with a Polymer Hole Transport Layer. 2015 , 5, 1401855		293
494	Review of recent progress in chemical stability of perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 8970-8980	13	1337
493	Enhanced charge collection with ultrathin AlOx electron blocking layer for hole-transporting material-free perovskite solar cell. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 4937-44	3.6	44
492	Temperature-dependent hysteresis effects in perovskite-based solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 9074-9080	13	105
491	Efficient CH3NH3PbI3 perovskite solar cells with 2TPA-n-DP hole-transporting layers. 2015 , 8, 1116-112	27	60
490	p-Type mesoscopic NiO as an active interfacial layer for carbon counter electrode based perovskite solar cells. 2015 , 44, 3967-73		125
489	Recent progress in organic i horganic halide perovskite solar cells: mechanisms and material design. Journal of Materials Chemistry A, 2015 , 3, 8992-9010	13	133
488	The effect of carbon counter electrodes on fully printable mesoscopic perovskite solar cells. Journal of Materials Chemistry A, 2015 , 3, 9165-9170	13	179
487	Perovskite Solar Cells: Progress and Advancements. 2016 , 9, 861		71
486	Determination of Interfacial Charge-Transfer Rate Constants in Perovskite Solar Cells. 2016 , 9, 1647-59		38
485	Moisture and Oxygen Enhance Conductivity of LiTFSI-Doped Spiro-MeOTAD Hole Transport Layer in Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600117	4.6	88

Improved photovoltaic performance of mesoporous perovskite solar cells with hydrogenated TiO2: 484 prolonged photoelectron lifetime and high separation efficiency of photoinduced charge. **2016**, 6, 65125-6513 $\frac{1}{5}$ Hole-Transporting Materials for Perovskite-Sensitized Solar Cells. Energy Technology, 2016, 4, 891-938 3.5 483 42 Recent Advances in Improving the Stability of Perovskite Solar Cells. 2016, 6, 1501420 482 251 Hole-Conductor-Free Fully Printable Mesoscopic Solar Cell with Mixed-Anion Perovskite 481 132 CH3NH3PbI(32)(BF4)x. 2016, 6, 1502009 Ionic Reactivity at Contacts and Aging of Methylammonium Lead Triiodide Perovskite Solar Cells. 480 225 2016. 6. 1502246 The Effect of Impurities on the Impedance Spectroscopy Response of CH3NH3PbI3 Perovskite 479 27 Solar Cells. 2016, 120, 28519-28526 478 Research Update: Behind the high efficiency of hybrid perovskite solar cells. 2016, 4, 091505 36 Insights into collaborative separation process of photogenerated charges and superior performance of solar cells. **2016**, 109, 043906 Evidence for ion migration in hybrid perovskite solar cells with minimal hysteresis. 2016, 7, 13831 476 477 The determination of ionic transport properties at high pressures in a diamond anvil cell. 2016, 87, 123904 475 19 Organic-Inorganic Hybrid Perovskite Solar Cells Using Hole Transport Layer Based on 3 474 α-Naphthyl Diamine Derivative. 2016, 29, 581-586 Iodine and Chlorine Element Evolution in CH3NH3PbI3⊠Clx Thin Films for Highly Efficient Planar 48 473 Heterojunction Perovskite Solar Cells. 2016, 28, 2742-2749 Preparation of ultra-thin and high-quality WO3 compact layers and comparision of WO3 and TiO2 472 42 compact layer thickness in planar perovskite solar cells. 2016, 238, 223-228 Toward Revealing the Critical Role of Perovskite Coverage in Highly Efficient Electron-Transport Layer-Free Perovskite Solar Cells: An Energy Band and Equivalent Circuit Model Perspective. 2016, 46 471 8,9811-20 Mobile Ions in Organohalide Perovskites: Interplay of Electronic Structure and Dynamics. ACS 143 470 20.1 Energy Letters, **2016**, 1, 182-188 Properties of Contact and Bulk Impedances in Hybrid Lead Halide Perovskite Solar Cells Including 469 333 Inductive Loop Elements. **2016**, 120, 8023-8032 Mechanism of biphasic charge recombination and accumulation in TiO2 mesoporous structured 468 3.6 24 perovskite solar cells. Physical Chemistry Chemical Physics, 2016, 18, 12128-34 State and prospects of solar cells based on perovskites. 2016, 52, 5-15 6 467

466	High Chloride Doping Levels Stabilize the Perovskite Phase of Cesium Lead Iodide. 2016 , 16, 3563-70		208
465	New generation perovskite solar cells with solution-processed amino-substituted perylene diimide derivative as electron-transport layer. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 8724-8733	13	96
464	Interface electric properties of Si/organic hybrid solar cells using impedance spectroscopy analysis. 2016 , 55, 056601		20
463	Performance enhancement of high temperature SnO2-based planar perovskite solar cells: electrical characterization and understanding of the mechanism. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 8374-	8383	122
462	Electric field induced reversible and irreversible photoluminescence responses in methylammonium lead iodide perovskite. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 9060-9068	7.1	61
461	Impact of sol aging on TiO2 compact layer and photovoltaic performance of perovskite solar cell. 2016 , 59, 710-718		21
460	Engineering TiO2/Perovskite Planar Heterojunction for Hysteresis-Less Solar Cells. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600493	4.6	21
459	Low-temperature prepared carbon electrodes for hole-conductor-free mesoscopic perovskite solar cells. 2016 , 218, 84-90		25
458	Elucidating the charge carrier transport and extraction in planar heterojunction perovskite solar cells by Kelvin probe force microscopy. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 17464-17472	13	38
457	Addictive-assisted construction of all-inorganic CsSnIBr2 mesoscopic perovskite solar cells with superior thermal stability up to 473 K. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 17104-17110	13	186
456	Simple biphenyl or carbazole derivatives with four di(anisyl)amino substituents as efficient hole-transporting materials for perovskite solar cells. 2016 , 6, 92213-92217		7
455	Enhancing the photovoltaic performance of planar heterojunction perovskite solar cells by doping the perovskite layer with alkali metal ions. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 16546-16552	13	119
454	Magnetron sputtering in the creation of photonic nanostructures derived from Sasakia Charonda Formosana-butterfly wings for applied in dye-sensitized solar cells. 2016 , 325, 598-608		7
453	Efficient Perovskite Solar Cells Depending on TiO2 Nanorod Arrays. 2016 , 8, 21358-65		102
452	Microscopic Charge Transport and Recombination Processes behind the Photoelectric Hysteresis in Perovskite Solar Cells. 2016 , 12, 5288-5294		25
451	Hysteresis in organic-inorganic hybrid perovskite solar cells. 2016 , 157, 476-509		116
450	Fast self-diffusion of ions in CH3NH3PbI3: the interstiticaly mechanism versus vacancy-assisted mechanism. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 13105-13112	13	53
449	Ionic Conductivity of OrganicIhorganic Perovskites: Relevance for Long-Time and Low Frequency Behavior. 2016 , 107-135		5

448	Comprehensive Insights into Charge Dynamics and Improved Photoelectric Properties of Well-Designed Solar Cells. 2016 , 8, 20701-9		2
447	Role of 4-tert-Butylpyridine as a Hole Transport Layer Morphological Controller in Perovskite Solar Cells. 2016 , 16, 5594-600		170
446	Antiferroelectric-to-Ferroelectric Switching in CH3NH3PbI3 Perovskite and Its Potential Role in Effective Charge Separation in Perovskite Solar Cells. 2016 , 6,		23
445	Cooperative tin oxide fullerene electron selective layers for high-performance planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 14276-14283	13	178
444	Revealing the unfavorable role of superfluous CH3NH3PbI3 grain boundary traps in perovskite solar cells on carrier collection. 2016 , 6, 83264-83272		10
443	Surface Recombination and Collection Efficiency in Perovskite Solar Cells from Impedance Analysis. 2016 , 7, 5105-5113		284
442	The beneficial effects of mixing spiro-OMeTAD with n-butyl-substituted copper phthalocyanine for perovskite solar cells. 2016 , 222, 1417-1423		18
441	Few-Layer MoS2 Flakes as Active Buffer Layer for Stable Perovskite Solar Cells. 2016 , 6, 1600920		135
440	Highly reproducible and photocurrent hysteresis-less planar perovskite solar cells with a modified solvent annealing method. 2016 , 136, 210-216		14
439	Soluble tetratriphenylamine Zn phthalocyanine as Hole Transporting Material for Perovskite Solar Cells. 2016 , 222, 875-880		32
438	Silver nanoparticle plasmonic effects on hole-transport material-free mesoporous heterojunction perovskite solar cells. 2016 , 139, 475-483		28
437	Enhancing stability and efficiency of perovskite solar cells with crosslinkable silane-functionalized and doped fullerene. 2016 , 7, 12806		293
436	Polyethyleneimine High-Energy Hydrophilic Surface Interfacial Treatment toward Efficient and Stable Perovskite Solar Cells. 2016 , 8, 32574-32580		41
435	Light and Thermally Induced Evolutional Charge Transport in CH3NH3PbI3 Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2016 , 1, 1000-1006	20.1	20
434	Hybrid organicIhorganic perovskites: low-cost semiconductors with intriguing charge-transport properties. 2016 , 1,		912
433	Efficient and stable perovskite solar cells prepared in ambient air irrespective of the humidity. 2016 , 7, 11105		389
432	Specific cation interactions as the cause of slow dynamics and hysteresis in dye and perovskite solar cells: a small-perturbation study. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 31033-31042	3.6	71
431	Photovoltaic and Amplified Spontaneous Emission Studies of High-Quality Formamidinium Lead Bromide Perovskite Films. 2016 , 26, 2846-2854		57

430	Thin Film Electrochemical Capacitors Based on Organolead Triiodide Perovskite. 2016 , 2, 1600114		23
429	A 19.0% efficiency achieved in CuOx-based inverted CH3NH3PbI3\(\mathbb{B}\)Clx solar cells by an effective Cl doping method. 2016 , 27, 51-57		185
428	Enhancing Perovskite Solar Cell Performance by Interface Engineering Using CH3NH3PbBr0.9I2.1 Quantum Dots. <i>Journal of the American Chemical Society</i> , 2016 , 138, 8581-7	16.4	194
427	Noncapacitive Hysteresis in Perovskite Solar Cells at Room Temperature. <i>ACS Energy Letters</i> , 2016 , 1, 209-215	20.1	65
426	Tin chloride perovskite-sensitized core/shell photoanode solar cell with spiro-MeOTAD hole transport material for enhanced solar light harvesting. 2016 , 20, 2633-2642		10
425	The effect of transparent conductive oxide on the performance CH3NH3PbI3 perovskite solar cell without electron/hole selective layers. 2016 , 135, 654-661		21
424	Organometal Halide Perovskite Artificial Synapses. 2016 , 28, 5916-22		221
423	Solvent-Mediated Dimension Tuning of Semiconducting Oxide Nanostructures as Efficient Charge Extraction Thin Films for Perovskite Solar Cells with Efficiency Exceeding 16%. 2016 , 6, 1502027		47
422	Dark-blue mirror-like perovskite dense films for efficient organic i horganic hybrid solar cells. Journal of Materials Chemistry A, 2016 , 4, 3689-3696	13	5
421	Shape-controlled CH3NH3PbI3nanoparticles for planar heterojunction perovskite solar cells. 2016 , 55, 02BF05		9
420	Influence of void-free perovskite capping layer on the charge recombination process in high performance CH3NH3PbI3 perovskite solar cells. 2016 , 8, 4181-93		22
419	Impact of Antisolvent Treatment on Carrier Density in Efficient Hole-Conductor-Free Perovskite-Based Solar Cells. 2016 , 120, 142-147		54
418	Self-Position of Au NPs in Perovskite Solar Cells: Optical and Electrical Contribution. 2016 , 8, 449-54		77
417	Planar heterojunction type perovskite solar cells based on TiOxcompact layer fabricated by chemical bath deposition. 2016 ,		3
416	A positive synergetic effect observed in the P3HTBnO2 composite semiconductor: the striking increase of carrier mobility. 2016 , 6, 2387-2393		3
415	Hybrid Organic-Inorganic Perovskites on the Move. 2016 , 49, 573-81		176
414	Planar versus mesoscopic perovskite microstructures: The influence of CH3NH3PbI3 morphology on charge transport and recombination dynamics. 2016 , 22, 439-452		64
413	Credible evidence for the passivation effect of remnant PbIIIn CHNHCHPbICHIFilms in improving the performance of perovskite solar cells. 2016 , 8, 6600-8		73

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412	Crystallinity and defect state engineering in organo-lead halide perovskite for high-efficiency solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 3806-3812	13	60
411	Ionic polarization-induced current-voltage hysteresis in CH3NH3PbX3 perovskite solar cells. 2016 , 7, 10334		500
410	An efficient electron transport material of tin oxide for planar structure perovskite solar cells. 2016 , 307, 891-897		59
409	W-doped TiO2 photoanode for high performance perovskite solar cell. 2016 , 195, 143-149		36
408	Solution-Processed CuS NPs as an Inorganic Hole-Selective Contact Material for Inverted Planar Perovskite Solar Cells. 2016 , 8, 7800-5		103
407	Molecular design and photovoltaic performance of a novel thiocyanate-based layered organometal perovskite material. 2016 , 215, 56-63		27
406	TiO2 Sub-microsphere Film as Scaffold Layer for Efficient Perovskite Solar Cells. 2016 , 8, 8162-7		40
405	The effect of recombination under short-circuit conditions on the determination of charge transport properties in nanostructured photoelectrodes. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 2303-8	3.6	7
404	Boosting the efficiency and the stability of low cost perovskite solar cells by using CuPc nanorods as hole transport material and carbon as counter electrode. 2016 , 20, 108-116		211
403	Stability of perovskite solar cells. 2016 , 147, 255-275		541
402	Impedance Spectroscopic Indication for Solid State Electrochemical Reaction in (CH3NH3)PbI3 Films. 2016 , 7, 191-7		71
401	14.7% efficient mesoscopic perovskite solar cells using single walled carbon nanotubes/carbon composite counter electrodes. 2016 , 8, 6379-85		129
400	High Performance Perovskite Hybrid Solar Cells with E-beam-Processed TiOx Electron Extraction Layer. 2016 , 8, 1876-83		37
399	Perovskite solar cells based on bottom-fused TiO2 nanocones. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 1520-1530	13	30
398	Organometal halide perovskite thin films and solar cells by vapor deposition. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 6693-6713	13	177
397	Synthesis of tunable-band-gap "Open-Box" halide perovskites by use of anion exchange and internal dissolution procedures. 2016 , 461, 162-167		2
396	Null current hysteresis for acetylacetonate electron extraction layer in perovskite solar cells. 2016 , 8, 6328-34		25
395	Low-temperature processed SnO2 compact layer for efficient mesostructure perovskite solar cells. 2017 , 391, 677-683		51

394	Microseconds, milliseconds and seconds: deconvoluting the dynamic behaviour of planar perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 5959-5970	3.6	160
393	Optical and electronic properties of mixed halide (X = I, Cl, Br) methylammonium lead perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 1714-1723	7.1	94
392	Interspace modification of titania-nanorod arrays for efficient mesoscopic perovskite solar cells. 2017 , 402, 86-91		11
391	Mesoporous PbI2 assisted growth of large perovskite grains for efficient perovskite solar cells based on ZnO nanorods. 2017 , 342, 990-997		93
390	Ionic origin of a negative capacitance in lead halide perovskites. 2017, 11, 1600418		20
389	Impact of Excess CH3NH3I on Free Carrier Dynamics in High-Performance Nonstoichiometric Perovskites. 2017 , 121, 3143-3148		41
388	Improved performance of inverted planar perovskite solar cells with F4-TCNQ doped PEDOT:PSS hole transport layers. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 5701-5708	13	163
387	A dimeric fullerene derivative for efficient inverted planar perovskite solar cells with improved stability. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 7326-7332	13	45
386	Effect of hole-transporting materials on the photovoltaic performance and stability of all-ambient-processed perovskite solar cells. 2017 , 26, 584-591		18
385	Fabrication of CH3NH3PbI3 perovskite-based solar cells: Developing various new solvents for CuSCN hole transport material. 2017 , 164, 56-62		32
384	Electrospun Perovskite Nanofibers. 2017 , 12, 114		7
383	Growth of Zr/N-codoped TiO2 nanorod arrays for enhanced photovoltaic performance of perovskite solar cells. 2017 , 7, 13325-13330		11
382	Degradation mechanism of planar-perovskite solar cells: correlating evolution of iodine distribution and photocurrent hysteresis. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 4527-4534	13	57
381	The rapid evolution of highly efficient perovskite solar cells. 2017 , 10, 710-727		811
380	Photo-electrochemical characterization of CH3NH3PbI3 Perovskite deposited on ZnO and TiO2 mesoporous structures during its dynamic restoration. 2017 , 47, 305-313		4
379	Amino-Acid-Induced Preferential Orientation of Perovskite Crystals for Enhancing Interfacial Charge Transfer and Photovoltaic Performance. 2017 , 13, 1604305		76
378	Insights into the Hole Blocking Layer Effect on the Perovskite Solar Cell Performance and Impedance Response. 2017 , 121, 9131-9141		59
377	Anti-solvent dependent device performance in CH3NH3PbI3 solar cells: the role of intermediate phase content in the as-prepared thin films. 2017 , 1, 1041-1048		35

(2017-2017)

37	Facile preparation of high-quality perovskites for efficient solar cells via a fast conversion of wet PbI2 precursor films. 2017 , 7, 22492-22500		19	
37	Photovoltaic Effect of 2D Homologous Perovskites. 2017 , 240, 98-107		13	
37	Amino-functionalized conjugated polymer electron transport layers enhance the UV-photostability of planar heterojunction perovskite solar cells. 2017 , 8, 4587-4594		39	•
37	Impact of moisture on efficiency-determining electronic processes in perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 10917-10927	13	70	
37	Structure and interstitial iodide migration in hybrid perovskite methylammonium lead iodide. 2017 , 8, 15152		62	
37	Normal and Inverted Hysteresis in Perovskite Solar Cells. 2017 , 121, 11207-11214		51	
37	Improving Interfacial Charge Recombination in Planar Heterojunction Perovskite Photovoltaics with Small Molecule as Electron Transport Layer. 2017 , 7, 1700522		139	
36	Realizing a new class of hybrid organichorganic multifunctional perovskite. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 10640-10650	13	23	
36	Recent progress and remaining challenges in organometallic halides based perovskite solar cells. 2017 , 78, 1-14		39	
36	Efficient Bulk Heterojunction CHNHPbI-TiO Solar Cells with TiO Nanoparticles at Grain Boundaries of Perovskite by Multi-Cycle-Coating Strategy. 2017 , 9, 16202-16214		17	
36	Hematite electron-transporting layers for environmentally stable planar perovskite solar cells with enhanced energy conversion and lower hysteresis. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 1434-1441	13	77	
36	Inverted planar solar cells based on perovskite/graphene oxide hybrid composites. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 13957-13965	13	61	
36	ThiopheneArylamine Hole-Transporting Materials in Perovskite Solar Cells: Substitution Position Effect. <i>Energy Technology</i> , 2017 , 5, 1788-1794	3.5	37	
36	A 200-nm length TiO2 nanorod array with a diameter of 13 nm and areal density of 1100 µm¼ for efficient perovskite solar cells. 2017 , 43, 12534-12539		13	
36	Metal Halide Perovskites as Mixed Electronic-Ionic Conductors: Challenges and Opportunities-From Hysteresis to Memristivity. 2017 , 8, 3106-3114		134	
36	High-Efficiency Perovskite Solar Cell Based on Poly(3-Hexylthiophene): Influence of Molecular Weight and Mesoscopic Scaffold Layer. 2017 , 10, 3854-3860		85	
36	Temperature Dependent Characteristics of Perovskite Solar Cells. 2017 , 2, 4469-4477		19	
35	Hole Blocking Layer-Free Perovskite Solar Cells with over 15% Efficiency. 2017 , 105, 188-193		7	

358	Low-temperature processed compact layer for perovskite solar cells with negligible hysteresis. 2017 , 235, 640-645	13
357	Acridine-based novel hole transporting material for high efficiency perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 7603-7611	44
356	Poly(4-Vinylpyridine)-Based Interfacial Passivation to Enhance Voltage and Moisture Stability of Lead Halide Perovskite Solar Cells. 2017 , 10, 2473-2479	132
355	Perovskite hybrid solar cells with a fullerene derivative electron extraction layer. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 4190-4197 7.1	20
354	Inorganic Surface Engineering to Enhance Perovskite Solar Cell Efficiency. 2017 , 9, 13181-13187	39
353	Transformation of PbI, PbBr and PbCl salts into MAPbBr perovskite by halide exchange as an effective method for recombination reduction. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 10913-1092.	18
352	Boron Doping of Multiwalled Carbon Nanotubes Significantly Enhances Hole Extraction in Carbon-Based Perovskite Solar Cells. 2017 , 17, 2496-2505	138
351	Freezing the polarization of CH 3 NH 3 PbI 3 and CH 3 NH 3 PbI 3-x Cl x perovskite films. 2017 , 4, 97-105	6
350	Electron injection and scaffold effects in perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 634-644	52
349	Accelerated degradation of methylammonium lead iodide perovskites induced by exposure to iodine vapour. 2017 , 2,	361
348	Characterization techniques for dye-sensitized solar cells. 2017 , 10, 672-709	102
347	Plasmonics in Organic and Perovskite Solar Cells: Optical and Electrical Effects. 2017 , 5, 1600698	54
346	Formation of pristine CuSCN layer by spray deposition method for efficient perovskite solar cell with extended stability. 2017 , 32, 414-421	86
345	Stability issues pertaining large area perovskite and dye-sensitized solar cells and modules. 2017 , 50, 033001	30
344	Reproducible Planar Heterojunction Solar Cells Based on One-Step Solution-Processed Methylammonium Lead Halide Perovskites. 2017 , 29, 462-473	32
343	Hysteresis phenomena in perovskite solar cells: the many and varied effects of ionic accumulation. Physical Chemistry Chemical Physics, 2017 , 19, 3094-3103	123
342	Passivated perovskite crystallization and stability in organic[horganic halide solar cells by doping a donor polymer. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 2572-2579	93
341	Enhancement of the Performance of Perovskite Solar Cells, LEDs, and Optical Amplifiers by Anti-Solvent Additive Deposition. 2017 , 29, 1604056	53

340	Tetraphenylmethane-Arylamine Hole-Transporting Materials for Perovskite Solar Cells. 2017, 10, 968-9	75	41
339	Influence of 且inker on triphenylamine-based hole transporting materials in perovskite solar cells. 2017 , 139, 129-135		58
338	Device architecture for efficient, low-hysteresis flexible perovskite solar cells: Replacing TiO2 with C60 assisted by polyethylenimine ethoxylated interfacial layers. 2017 , 161, 338-346		46
337	Measurement and modelling of dark current decay transients in perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 452-462	7.1	51
336	Kinetic Isotope Effects Provide Experimental Evidence for Proton Tunneling in Methylammonium Lead Triiodide Perovskites. <i>Journal of the American Chemical Society</i> , 2017 , 139, 16359-16364	16.4	16
335	Defect Passivation via a Graded Fullerene Heterojunction in Low-Bandgap PbBn Binary Perovskite Photovoltaics. <i>ACS Energy Letters</i> , 2017 , 2, 2531-2539	20.1	90
334	Improving Efficiency and Stability of Perovskite Solar Cells by Modifying Mesoporous TiO2 B erovskite Interfaces with Both Aminocaproic and Caproic acids. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1700897	4.6	28
333	Caesium Methyl Ammonium Mixed-Cation Lead Iodide Perovskite Crystals: Analysis and Application for Perovskite Solar Cells. 2017 , 257, 267-280		17
332	Unraveling the Impact of Rubidium Incorporation on the Transport-Recombination Mechanisms in Highly Efficient Perovskite Solar Cells by Small-Perturbation Techniques. 2017 , 121, 24903-24908		34
331	Interfacial engineering of hole transport layers with metal and dielectric nanoparticles for efficient perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 25016-25024	3.6	8
330	Enhanced electronic transport in Fe3+-doped TiO2 for high efficiency perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 10754-10760	7.1	69
329	Highly stable, phase pure Cs2AgBiBr6 double perovskite thin films for optoelectronic applications. Journal of Materials Chemistry A, 2017 , 5, 19972-19981	13	350
328	Interpenetration of CHNHPbI and TiO improves perovskite solar cells while TiO expansion leads to degradation. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 21407-21413	3.6	6
327	Precise Characterization of Performance Metrics of Organic Solar Cells. 2017 , 1, 1700159		10
326	4-Tert-butylpyridine Free Organic Hole Transporting Materials for Stable and Efficient Planar Perovskite Solar Cells. 2017 , 7, 1700683		91
325	Enhanced charge collection and stability in planar perovskite solar cells based on a cobalt(III)-complex additive. 2017 , 7, 37654-37658		6
324	Deleterious Effect of Negative Capacitance on the Performance of Halide Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2017 , 2, 2007-2013	20.1	47
323	Role of Ionic Functional Groups on Ion Transport at Perovskite Interfaces. 2017 , 7, 1701235		27

322	Interfaces in Perovskite Solar Cells. 2017 , 7, 1700623	225
321	A 2,1,3-Benzooxadiazole Moiety in a DAD-type Hole-Transporting Material for Boosting the Photovoltage in Perovskite Solar Cells. 2017 , 121, 17617-17624	35
320	Hole-Transport Materials Containing Triphenylamine Donors with a Spiro[fluorene-9,9?-xanthene] Core for Efficient and Stable Large Area Perovskite Solar Cells. 2017 , 1, 1700096	17
319	Enhanced efficiency and stability of carbon based perovskite solar cells using terephthalic acid additive. 2017 , 258, 1262-1272	26
318	Operating Mechanisms of Mesoscopic Perovskite Solar Cells through Impedance Spectroscopy and J-V Modeling. 2017 , 8, 6073-6079	54
317	Broadband dye-sensitized upconverting nanocrystals enabled near-infrared planar perovskite solar cells. 2017 , 372, 125-133	26
316	High-efficiency near-infrared enabled planar perovskite solar cells by embedding upconversion nanocrystals. 2017 , 9, 18535-18545	48
315	Dynamic Electronic Junctions in Organic-Inorganic Hybrid Perovskites. 2017 , 17, 4831-4839	24
314	Synthesis of TiO2 nanorice and their improved dye sensitized solar cells performance. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 4107-4113	4
313	Effect of guanidinium on mesoscopic perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 73-78	119
312	Efficient planar heterojunction perovskite solar cells with Li-doped compact TiO 2 layer. 2017 , 31, 462-468	204
311	Low temperature processed ZnO thin film as electron transport layer for efficient perovskite solar cells. 2017 , 159, 251-264	82
310	Dynamic electrical behavior of halide perovskite based solar cells. 2017 , 159, 197-203	26
309	Mixed Cation FAxPEA1NPbI3 with Enhanced Phase and Ambient Stability toward High-Performance Perovskite Solar Cells. 2017 , 7, 1601307	237
308	W(Nb)O x -based efficient flexible perovskite solar cells: From material optimization to working principle. 2017 , 31, 424-431	76
307	Substrate effect on the interfacial electronic structure of thermally-evaporated CH3NH3PbI3 perovskite layer. 2017 , 41, 307-314	23
306	High-efficiency humidity-stable planar perovskite solar cells based on atomic layer architecture. 2017 , 10, 91-100	184
305	Main-Group Halide Semiconductors Derived from Perovskite: Distinguishing Chemical, Structural, and Electronic Aspects. 2017 , 56, 11-25	36

304	Low-temperature easy-processed carbon nanotube contact for high-performance metal- and hole-transporting layer-free perovskite solar cells. 2017 , 332, 265-272	20
303	Recent advances of flexible hybrid perovskite solar cells. 2017 , 71, 593-607	14
302	Charge separation and carrier dynamics in donor-acceptor heterojunction photovoltaic systems. 2017 , 4, 061503	8
301	TiO_2 nanotube/TiO_2 nanoparticle hybrid photoanode for hole-conductor-free perovskite solar cells based on carbon counter electrodes. 2017 , 7, 3322	10
300	Effect of Modulating Spin-Coating Rate of TiO2Precursor for Mesoporous Layer onJ-VHysteresis of Solar Cells with Polar CH3NH3PbI3Perovskite Thin Film. 2017 , 2017, 1-11	1
299	Perovskite as Light Harvester: Prospects, Efficiency, Pitfalls and Roadmap. 2017,	1
298	Yttrium-doped TiO2 nanorod arrays and application in perovskite solar cells for enhanced photocurrent density. 2018 , 651, 117-123	11
297	Solid-State Thin-Film Dye-Sensitized Solar Cell Co-Sensitized with Methylammonium Lead Bromide Perovskite. 2018 , 91, 754-760	10
296	Influence of a cobalt additive in spiro-OMeTAD on charge recombination and carrier density in perovskite solar cells investigated using impedance spectroscopy. <i>Physical Chemistry Chemical</i> 3.6 <i>Physics</i> , 2018 , 20, 10114-10120	21
295	Opto-electronic characterization of third-generation solar cells. 2018 , 19, 291-316	63
294	Evolution of organometal halide solar cells. 2018 , 35, 74-107	22
293	Impedance Spectroscopy Measurements in Perovskite Solar Cells: Device Stability and Noise Reduction. <i>ACS Energy Letters</i> , 2018 , 3, 1044-1048	72
292	Photovoltaic performances of mono- and mixed-halide structures for perovskite solar cell: A review. 2018 , 90, 248-274	35
291	Interplay between Ion Transport, Applied Bias, and Degradation under Illumination in Hybrid Perovskite p-i-n Devices. 2018 , 122, 13986-13994	33
290	A quantitative and spatially resolved analysis of the performance-bottleneck in high efficiency, planar hybrid perovskite solar cells. 2018 , 11, 960-969	34
289	Ligand engineering on CdTe quantum dots in perovskite solar cells for suppressed hysteresis. 2018 , 46, 45-53	38
288	Morphology and Optoelectronic Variations Underlying the Nature of the Electron Transport Layer in Perovskite Solar Cells. 2018 , 1, 602-615	20
287	Chemical vapor deposition in fabrication of robust and highly efficient perovskite solar cells based on single-walled carbon nanotubes counter electrodes. <i>Journal of Alloys and Compounds</i> , 2018 , 747, 703-771	25

286	Fast Voltage Decay in Perovskite Solar Cells Caused by Depolarization of Perovskite Layer. 2018 , 122, 4822-4827	23
285	Effect of Bromine Substitution on the Ion Migration and Optical Absorption in MAPbI3 Perovskite Solar Cells: The First-Principles Study. 2018 , 1, 1374-1380	28
284	Efficient and ultraviolet durable planar perovskite solar cells via a ferrocenecarboxylic acid modified nickel oxide hole transport layer. 2018 , 10, 5617-5625	85
283	Influence of coating steps of perovskite on low-temperature amorphous compact TiO x upon the morphology, crystallinity, and photovoltaic property correlation in planar perovskite solar cells. 2018 , 57, 03EJ06	6
282	Research progress on organic[horganic halide perovskite materials and solar cells. 2018, 51, 093001	46
281	Nanoarchitectures in dye-sensitized solar cells: metal oxides, oxide perovskites and carbon-based materials. 2018 , 10, 4987-5034	85
280	N-Annulated Perylene-Based Hole Transporters for Perovskite Solar Cells: The Significant Influence of Lateral Substituents. 2018 , 11, 672-680	17
279	High permeable microporous structured carbon counter electrode assisted by polystyrene sphere for fully printable perovskite solar cells. 2018 , 271, 71-75	10
278	Fully High-Temperature-Processed SnO2 as Blocking Layer and Scaffold for Efficient, Stable, and Hysteresis-Free Mesoporous Perovskite Solar Cells. 2018 , 28, 1706276	111
277	Interface engineering of compact-TiOx in planar perovskite solar cells using low-temperature processable high-mobility fullerene derivative. 2018 , 178, 1-7	25
276	Effects of Perovskite Monovalent Cation Composition on the High and Low Frequency Impedance Response of Efficient Solar Cells. 2018 , 122, 1973-1981	30
275	Impedance Analysis of Thin Films of Organic-Inorganic Perovskites CHNHPbI with Control of Microstructure. 2018 , 13, 98	7
274	From Ultrafast to Ultraslow: Charge-Carrier Dynamics of Perovskite Solar Cells. 2018 , 2, 879-901	125
273	Metal-Halide Perovskites for Gate Dielectrics in Field-Effect Transistors and Photodetectors Enabled by PMMA Lift-Off Process. 2018 , 30, e1707412	30
272	Highly Efficient 17.6% Tin-Lead Mixed Perovskite Solar Cells Realized through Spike Structure. 2018 , 18, 3600-3607	96
271	Carbon based perovskite solar cells constructed by screen-printed components. 2018 , 276, 261-267	30
270	Substituting Cs for MA on the surface of MAPbI3 perovskite: A first-principles study. 2018 , 150, 411-417	11
269	Light-current-induced acceleration of degradation of methylammonium lead iodide perovskite solar cells. 2018 , 384, 303-311	7

(2018-2018)

268	Review of recent developments and persistent challenges in stability of perovskite solar cells. 2018 , 90, 210-222		72
267	The Relationship between Chemical Flexibility and Nanoscale Charge Collection in Hybrid Halide Perovskites. 2018 , 28, 1706995		20
266	Investigation of Hole-Transporting Poly(triarylamine) on Aggregation and Charge Transport for Hysteresisless Scalable Planar Perovskite Solar Cells. 2018 , 10, 11633-11641		57
265	A Multifunctional Bis-Adduct Fullerene for Efficient Printable Mesoscopic Perovskite Solar Cells. 2018 , 10, 10835-10841		25
264	Optimization of sputtering NiO films for perovskite solar cell applications. 2018, 103, 150-157		33
263	High crystallization of a multiple cation perovskite absorber for low-temperature stable ZnO solar cells with high-efficiency of over 20. 2018 , 10, 7218-7227		41
262	Carrier Interfacial Engineering by Bismuth Modification for Efficient and Thermoresistant Perovskite Solar Cells. 2018 , 8, 1703659		43
261	Fullerene-Based Materials as Hole-Transporting/Electron-Blocking Layers: Applications in Perovskite Solar Cells. 2018 , 24, 8524-8529		19
2 60	Boosting efficiency and stability of perovskite solar cells with nickel phthalocyanine as a low-cost hole transporting layer material. 2018 , 34, 1474-1480		33
259	Nature of Photoinduced Quenching Traps in Methylammonium Lead Triiodide Perovskite Revealed by Reversible Photoluminescence Decline. 2018 , 5, 2034-2043		36
258	Characterization of Low-Frequency Excess Noise in CHNHPbI-Based Solar Cells Grown by Solution and Hybrid Chemical Vapor Deposition Techniques. 2018 , 10, 371-380		18
257	Recent Advances in Spiro-MeOTAD Hole Transport Material and Its Applications in OrganicIhorganic Halide Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1700623	4.6	229
256	Hybrid Organic/Inorganic and Perovskite Solar Cells. 2018, 187-227		2
255	On the Use of Luminescence Intensity Images for Quantified Characterization of Perovskite Solar Cells: Spatial Distribution of Series Resistance. 2018 , 8, 1701522		22
254	Perovskite solar cells: Materials, configurations and stability. 2018 , 82, 2471-2489		73
253	Room-Temperature-Operated Ultrasensitive Broadband Photodetectors by Perovskite Incorporated with Conjugated Polymer and Single-Wall Carbon Nanotubes. 2018 , 28, 1705541		51
252	Frontiers, opportunities, and challenges in perovskite solar cells: A critical review. 2018 , 35, 1-24		205
251	Congeneric Incorporation of CsPbBr3 Nanocrystals in a Hybrid Perovskite Heterojunction for Photovoltaic Efficiency Enhancement. <i>ACS Energy Letters</i> , 2018 , 3, 30-38	20.1	86

250	Recent progress in organohalide lead perovskites for photovoltaic and optoelectronic applications. 2018 , 373, 258-294		41
249	The role of interface between electron transport layer and perovskite in halogen migration and stabilizing perovskite solar cells with Cs4SnO4. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 23797-23804	13	13
248	Anchored Cu2O nanoparticles on graphene sheets as an inorganic hole transport layer for improvement in solar cell performance. 2018 , 124, 1		5
247	The two faces of capacitance: New interpretations for electrical impedance measurements of perovskite solar cells and their relation to hysteresis. 2018 , 124, 225702		75
246	The Role of Surface Recombination on the Performance of Perovskite Solar Cells: Effect of Morphology and Crystalline Phase of TiO2 Contact. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1801076	4.6	20
245	Rotationally Free and Rigid Sublattices of the Single Crystal Perovskite CH3NH3PbBr3 (001): The Case of the Lattice Polar Liquid. 2018 , 122, 25506-25514		7
244	Cadmium and ytterbium Co-doped TiO2 nanorod arrays perovskite solar cells: enhancement of open circuit voltage and short circuit current density. <i>Journal of Materials Science: Materials in Electronics</i> , 2018 , 29, 21138-21144	2.1	5
243	Proton Migration in Hybrid Lead Iodide Perovskites: From Classical Hopping to Deep Quantum Tunneling. 2018 , 9, 6536-6543		10
242	Competition of Carrier Separation and Recombination for an Optimized Electrode Configuration for Flexible Thin-Film Solar Cells. 2018 , 10, 32067-32077		3
241	Charge Injection and Electrical Response in Low-Temperature SnO-Based Efficient Perovskite Solar Cells. 2018 , 10, 35118-35128		24
240	Dual interfacial modifications by conjugated small-molecules and lanthanides doping for full functional perovskite solar cells. 2018 , 53, 849-862		41
239	In Situ Cesium Modification at Interface Enhances the Stability of Perovskite Solar Cells. 2018 , 10, 3320	5-3321	3 20
238	Possible interfacial ion/charge accumulation in thin-film perovskite/fullerene surfactant planar heterojunction solar cells. 2018 , 51, 504001		3
237	Progress toward Stable Lead Halide Perovskite Solar Cells. 2018 , 2, 1961-1990		132
236	Nb-Doping TiO2 Electron Transporting Layer for Efficient Perovskite Solar Cells. 2018 , 1, 2576-2581		16
235	Three-Dimensional Graphene Nanostructures. <i>Journal of the American Chemical Society</i> , 2018 , 140, 934	I -1963.4 5	70
234	Improving the Quality of CH3NH3PbI3 Films via Chlorobenzene Vapor Annealing. 2018, 215, 1700959		9
233	Elucidation of Charge Recombination and Accumulation Mechanism in Mixed Perovskite Solar Cells. 2018 , 122, 15149-15154		49

232	Restrained light-soaking and reduced hysteresis in perovskite solar cells employing a helical perylene diimide interfacial layer. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 10379-10387	33	
231	The domination of ionic conductivity in tetragonal phase of the organometal halide perovskite CH3NH3PbI3-xClx. 2018 , 82, 19-23	14	
230	Ion Migration in Hybrid Perovskites: Evolving Understanding of a Dynamic Phenomenon. 2018 , 163-196	6	
229	New thiophene-based C fullerene derivatives as efficient electron transporting materials for perovskite solar cells. 2018 , 42, 14551-14558	24	
228	Compact TiO2/Anatase TiO2 Single-Crystalline Nanoparticle Electron-Transport Bilayer for Efficient Planar Perovskite Solar Cells. 2018 , 6, 12070-12078	31	
227	Spray-Pyrolyzed ZnO as Electron Selective Contact for Long-Term Stable Planar CH3NH3PbI3 Perovskite Solar Cells. 2018 , 1, 4057-4064	13	
226	Perovskites-Based Solar Cells: A Review of Recent Progress, Materials and Processing Methods. 2018 , 11,	138	
225	The Electrical Properties of Tb-Doped CaF2 Nanoparticles under High Pressure. 2018 , 8, 98	7	
224	Analysing the Prospects of Perovskite Solar Cells within the Purview of Recent Scientific Advancements. 2018 , 8, 242	9	
223	Efficiency enhancement of perovskite solar cells by incorporation of CdS quantum dot through fast electron injection. 2018 , 62, 21-25	19	
222	All low-temperature processed carbon-based planar heterojunction perovskite solar cells employing Mg-doped rutile TiO2 as electron transport layer. 2018 , 283, 1115-1124	40	
221	Ultra-compact titanium oxide prepared by ultrasonic spray pyrolysis method for planar heterojunction perovskite hybrid solar cells. 2018 , 659, 41-47	7	
220	Enhanced Device Efficiency and Long-Term Stability via Boronic Acid-Based Self-Assembled Monolayer Modification of Indium Tin Oxide in a Planar Perovskite Solar Cell. 2018 , 10, 30000-30007	32	
219	Grain-Boundary "Patches" by In Situ Conversion to Enhance Perovskite Solar Cells Stability. 2018 , 30, e1800544	170	
218	Carboxylic ester-terminated fulleropyrrolidine as an efficient electron transport material for inverted perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 6982-6987	11	
217	The influence of secondary solvents on the morphology of a spiro-MeOTAD hole transport layer for lead halide perovskite solar cells. 2018 , 51, 294001	14	
216	Upconversion Er-doped TiO 2 nanorod arrays for perovskite solar cells and the performance improvement. 2018 , 106, 346-352	21	
215	Dynamic Impact of Electrode Materials on Interface of Single-Crystalline Methylammonium Lead Bromide Perovskite. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1800476	21	

214	3D asymmetric carbozole hole transporting materials for perovskite solar cells. 2019 , 189, 404-411		11
213	Understanding Hydrogen Bonding Interactions in Crosslinked Methylammonium Lead Iodide Crystals: Towards Reducing Moisture and Light Degradation Pathways. 2019 , 131, 14050-14059		2
212	Yttrium-Doped ZnO Nanorod Arrays for Increased Charge Mobility and Carrier Density for Enhanced Solar Water Splitting. 2019 , 123, 18187-18197		20
211	Atomic-level passivation mechanism of ammonium salts enabling highly efficient perovskite solar cells. 2019 , 10, 3008		178
210	Energetic disorder in perovskite/polymer solar cells and its relationship with the interfacial carrier losses. 2019 , 377, 20180315		4
209	Understanding Hydrogen Bonding Interactions in Crosslinked Methylammonium Lead Iodide Crystals: Towards Reducing Moisture and Light Degradation Pathways. 2019 , 58, 13912-13921		24
208	Iodine-rich mixed composition perovskites optimised for tin(IV) oxide transport layers: the influence of halide ion ratio, annealing time, and ambient air aging on solar cell performance. Journal of Materials Chemistry A, 2019 , 7, 16947-16953	13	16
207	Imaging and Mapping Characterization Tools for Perovskite Solar Cells. 2019 , 9, 1900444		27
206	Doping Strategy for Efficient and Stable Triple Cation Hybrid Perovskite Solar Cells and Module Based on Poly(3-hexylthiophene) Hole Transport Layer. 2019 , 15, e1904399		38
205	Sequentially vacuum evaporated high-quality CsPbBr3 films for efficient carbon-based planar heterojunction perovskite solar cells. 2019 , 443, 227269		19
204	Novel antisolvent-washing strategy for highly efficient carbon-based planar CsPbBr3 perovskite solar cells. 2019 , 439, 227092		24
203	Influences of Structural Modification of Naphthalenediimides with Benzothiazole on Organic Field-Effect Transistor and Non-Fullerene Perovskite Solar Cell Characteristics. 2019 , 11, 44487-44500		14
202	Elucidating the Impact of Charge Selective Contact in Halide Perovskite through Impedance Spectroscopy. <i>Advanced Materials Interfaces</i> , 2019 , 6, 1901193	4 .6	21
201	Anti-Oxidizing Radical Polymer-Incorporated Perovskite Layers and their Photovoltaic Characteristics in Solar Cells. 2019 , 12, 5207-5212		9
200	Mechanistic Insights into Photochemical Reactions on CH3NH3PbBr3 Perovskite Nanoparticles from Single-Particle Photoluminescence Spectroscopy. 2019 , 5, 340-345		4
199	An Equivalent Circuit for Perovskite Solar Cell Bridging Sensitized to Thin Film Architectures. 2019 , 3, 2535-2549		53
198	Control of aggregation and dissolution of small molecule hole transport layers via a doping strategy for highly efficient perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 11932-11942	7.1	6
197	Improvement of planar perovskite solar cells by using solution processed SnO2/CdS as electron transport layer. 2019 , 191, 647-653		16

196	Enhanced performance of perovskite solar cells by incorporation of a triphenylamine derivative into hole-transporting poly(3-hexylthiophene) layers. 2019 , 73, 175-181	12
195	Improving the light scattering efficiency of photoelectrode dye-sensitized solar cell through optimization of core-shell structure. <i>Materials Today Communications</i> , 2019 , 19, 220-229	5
194	Highly Efficient and Stable Perovskite Solar Cells via Modification of Energy Levels at the Perovskite/Carbon Electrode Interface. 2019 , 31, e1804284	116
193	High-Performance Perovskite Solar Cells with Enhanced Environmental Stability Based on a (p-FC6H4C2H4NH3)2[PbI4] Capping Layer. 2019 , 9, 1802595	128
192	Iodide-ion conduction in methylammonium lead iodide perovskite: some extraordinary aspects. 2019 , 55, 1108-1111	11
191	Enhanced Efficiency of Carbon-Based Mesoscopic Perovskite Solar Cells through a Tungsten Oxide Nanoparticle Additive in the Carbon Electrode. 2019 , 9, 8778	23
190	Analysis of the UVDzone-Treated SnO2 Electron Transporting Layer in Planar Perovskite Solar Cells for High Performance and Reduced Hysteresis. 2019 , 3, 1900191	39
189	Performance enhancement of hole-transport material free perovskite solar cells with TiO2 nanorods modified with SiO2/NaYF4:Yb,Er@SiO2 for upconversion and charge recombination suppression. 2019 , 73, 152-158	8
188	The facile modification of PEDOT:PSS buffer layer by polyethyleneglycol and their effects on inverted perovskite solar cell. 2019 , 186, 398-403	14
187	Solid-State Ionics of Hybrid Halide Perovskites. <i>Journal of the American Chemical Society</i> , 2019 , 141, 8382 r6.3 t	9642
186	The effect of water in Carbon-Perovskite Solar Cells with optimized alumina spacer. 2019 , 197, 76-83	16
185	Ionic-to-electronic current amplification in hybrid perovskite solar cells: ionically gated transistor-interface circuit model explains hysteresis and impedance of mixed conducting devices. 2019 , 12, 1296-1308	102
184	Effective improvement of the photovoltaic performance of carbon-based perovskites solar cells by grinding process and its capacitor model. 2019 , 422, 131-137	11
183	Open Atmosphere-Processed Stable Perovskite Solar Cells Using Molecular Engineered, Dopant-Free, Highly Hydrophobic Polymeric Hole-Transporting Materials: Influence of Thiophene and Alkyl Chain on Power Conversion Efficiency. 2019 , 123, 8560-8568	13
182	Accelerated hole-extraction in carbon-electrode based planar perovskite solar cells by moisture-assisted post-annealing. 2019 , 114, 103503	29
181	Applying BaTiO3-coated TiO2 coreEhell nanoparticles films as scaffold layers to optimize interfaces for better-performing perovskite solar cells. <i>Journal of Materials Science: Materials in</i> 2.1 <i>Electronics</i> , 2019 , 30, 7733-7742	1
180	Origin of apparent light-enhanced and negative capacitance in perovskite solar cells. 2019, 10, 1574	109

178	Causes and Solutions of Recombination in Perovskite Solar Cells. 2019, 31, e1803019	242
177	Demonstration of Photovoltaic Action and Enhanced Stability from a Quasi-Two-Dimensional Hybrid OrganicIhorganic CopperHalide Material Incorporating Divalent Organic Groups. 2019 , 2, 2178-2187	3
176	Constructing CsPbBr3 Cluster Passivated-Triple Cation Perovskite for Highly Efficient and Operationally Stable Solar Cells. 2019 , 29, 1809180	52
175	Role of Ionic Charge Accumulation in Perovskite Solar Cell: Carrier Transfer in Bulk and Extraction at Interface. 2019 , 123, 5312-5320	6
174	Inverted-heterostructure based device of CH3NH3PbBr3 for Schottky photodiode. 2019 , 88, 30101	2
173	Enhancing the photovoltaic performance of perovskite solar cells by potassium ions doping. Journal of Materials Science: Materials in Electronics, 2019, 30, 2057-2066	5
172	To Reveal Grain Boundary Induced Thermal Instability of Perovskite Semiconductor Thin Films for Photovoltaic Devices. 2019 , 9, 207-213	5
171	Interfacial Dynamics and Contact Passivation in Perovskite Solar Cells. 2019 , 5, 1800500	22
170	Boosting the efficiency of carbon-based planar CsPbBr3 perovskite solar cells by a modified multistep spin-coating technique and interface engineering. 2019 , 56, 184-195	184
169	High-efficiency perovskite solar cells based on self-assembly n-doped fullerene derivative with excellent thermal stability. 2019 , 413, 459-466	19
168	Correlating variability of modeling parameters with photovoltaic performance: Monte Carlo simulation of a meso-structured perovskite solar cell. 2019 , 237, 131-144	17
167	Improving the Performance and Reproducibility of Inverted Planar Perovskite Solar Cells Using Tetraethyl Orthosilicate as the Antisolvent. 2019 , 11, 3909-3916	21
166	Residual impedance effect on emulated bioimpedance measurements using Keysight E4990A precision impedance analyzer. 2019 , 134, 468-479	15
165	Operation Mechanism of Perovskite Quantum Dot Solar Cells Probed by Impedance Spectroscopy. ACS Energy Letters, 2019 , 4, 251-258	65
164	Stability in 3D and 2D/3D hybrid perovskite solar cells studied by EFISHG and IS techniques under light and heat soaking. 2019 , 66, 7-12	14
163	Bromide Induced Room-Temperature Formation of Photoactive Formamidinium-Based Perovskite for High-Efficiency, Low-Cost Solar Cells. 2019 , 3, 1800313	5
162	Employing tetraethyl orthosilicate additive to enhance trap passivation of planar perovskite solar cells. 2019 , 293, 174-183	15
161	Low-Cost Counter-Electrode Materials for Dye-Sensitized and Perovskite Solar Cells. 2020 , 32, e1806478	68

(2020-2020)

160	Enhancing the optical, morphological and electronic properties of the solution-processed CsPbIBr2 films by Li doping for efficient carbon-based perovskite solar cells. 2020 , 499, 143990	36
159	Study on the stability of the mixed (MAPbI3 and MAPbBr3) perovskite solar cells using dopant-free HTL. 2020 , 76, 105453	8
158	Iodine-assisted antisolvent engineering for stable perovskite solar cells with efficiency >21.3 %. 2020 , 67, 104224	32
157	Fabrication of efficient CsPbBr3 perovskite solar cells by single-source thermal evaporation. <i>Journal of Alloys and Compounds</i> , 2020 , 818, 152903 5.7	32
156	Stability of all-inorganic perovskite solar cells. 2020 , 67, 104249	77
155	Vapor-assisted deposition of CsPbIBr2 films for highly efficient and stable carbon-based planar perovskite solar cells with superior Voc. 2020 , 330, 135266	24
154	High performance perovskites solar cells by hybrid perovskites co-crystallized with poly(ethylene oxide). 2020 , 67, 104229	31
153	Inhibited aggregation of lithium salt in spiro-OMeTAD toward highly efficient perovskite solar cells. 2020 , 70, 104483	40
152	Diammonium-Cesium Lead Halide Perovskite with Phase-Segregated Interpenetrating Morphology for Photovoltaics. 2020 , 11, 747-754	9
151	Negative capacitance switching in size-modulated FeO nanoparticles with spontaneous non-stoichiometry: confronting its generalized origin in non-ferroelectric materials. 2020 , 12, 1528-1540	7
150	Progress in CZTS as hole transport layer in perovskite solar cell. 2020 , 196, 399-408	21
149	Hierarchically Anatase TiO2 microspheres composed of tiny octahedra used as mesoporous layer in perovskite solar cells. 2020 , 331, 135281	3
148	Electrical Methods to Elucidate Charge Transport in Hybrid Perovskites Thin Films and Devices. Chemical Record, 2020 , 20, 452-465	19
147	Rapid Characterization and Parameter Space Exploration of Perovskites Using an Automated Routine. 2020 , 22, 6-17	5
146	Current-voltage analysis: lessons learned from hysteresis. 2020 , 81-108	6
145	Specific Features of Photoluminescence of CH3NH3PBI3 Perovskites Synthesized on Nanostructured TiO2 Surface. 2020 , 128, 1118-1124	1
144	Improved Pore-Filling and Passivation of Defects in Hole-Conductor-Free, Fully Printable Mesoscopic Perovskite Solar Cells Based on d-Sorbitol Hexaacetate-Modified MAPbI. 2020 , 12, 47677-47683	5
143	Novel cathode interfacial layer using creatine for enhancing the photovoltaic properties of perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 21721-21728	14

142	Using Monovalent- to Trivalent-Cation Hybrid Perovskites for Producing High-Efficiency Solar Cells: Electrical Response, Impedance, and Stability. 2020 , 3, 10349-10361	16
141	An in situ cross-linked 1D/3D perovskite heterostructure improves the stability of hybrid perovskite solar cells for over 3000 h operation. 2020 , 13, 4344-4352	68
140	CuGaS2 quantum dots with controlled surface defects as an hole-transport material for high-efficient and stable perovskite solar cells. 2020 , 211, 55-61	6
139	Enhanced efficiency and reduced hysteresis by TiO2 modification in high-performance perovskite solar cells. 2020 , 86, 105922	3
138	Understanding Charge Transport in All-Inorganic Halide Perovskite Nanocrystal Thin-Film Field Effect Transistors. <i>ACS Energy Letters</i> , 2020 , 5, 2614-2623	15
137	Mo5+ doping induced interface polarization for improving performance of planar perovskite solar cells. 2020 , 41, 052203	Ο
136	Thermal-assisted photo-annealed TiO2 thin films for perovskite solar cells fabricated under ambient air. 2020 , 530, 147221	5
135	Enhanced Inorganic CsPbIBr2 Perovskite Film for a Sensitive and Rapid Response Self-Powered Photodetector. 2020 , 124, 20643-20653	15
134	Novel photoelectrochromic devices incorporating carbon-based perovskite solar cells. 2020 , 77, 105243	10
133	The dominant role of memory-based capacitive hysteretic currents in operation of photovoltaic perovskites. 2020 , 78, 105398	5
132	Efficiency progress of inverted perovskite solar cells. 2020 , 13, 3823-3847	92
131	Electrochemical Impedance Spectroscopy Analysis of Hole Transporting Material Free Mesoporous and Planar Perovskite Solar Cells. 2020 , 10,	16
130	In Situ Formation of Compact PbI Shell Boosts the Efficiency and Thermostability of Perovskite Solar Cells. 2020 , 16, e2001866	4
129	The Origin of Photoinduced Capacitance in Perovskite Solar Cells: Beyond Ionic-to-Electronic Current Amplification. 2020 , 6, 2000030	6
128	Electrical equivalent circuit (EEC) based impedance spectroscopy analysis of HTM free perovskite solar cells. 2020 , 871, 114294	7
127	Electron Transport Materials: Evolution and Case Study for High-Efficiency Perovskite Solar Cells. 2020 , 4, 2000136	16
126	A Thioxanthenothioxanthene-based Hole Transporter with 2D Molecular Stacking for Efficient and Thermostable Perovskite Solar Cells. 2020 , 2, 691-698	7
125	Enhanced photovoltaic performance and reduced hysteresis in hole-conductor-free, printable mesoscopic perovskite solar cells based on melamine hydroiodide modified MAPbI3. 2020 , 206, 548-554	7

(2021-2020)

124	Exploring the impact of fractional-order capacitive behavior on the hysteresis effects of perovskite solar cells: A theoretical perspective. 2020 , 90, 105371		7	
123	Correlation of Spatiotemporal Dynamics of Polarization and Charge Transport in Blended Hybrid Organic-Inorganic Perovskites on Macro- and Nanoscales. 2020 , 12, 15380-15388		4	
122	Active circuit model of low-frequency behavior in perovskite solar cells. 2020 , 85, 105804		3	
121	Theoretical Progress on the Relationship between the Structures and Properties of Perovskite Solar Cells. 2020 , 3, 2000022		4	
120	Cs3Bi2I9/g-C3N4 as a new binary photocatalyst for efficient visible-light photocatalytic processes. 2020 , 251, 117320		22	
119	A single-phase brookite TiO2 nanoparticle bridge enhances the stability of perovskite solar cells. 2020 , 4, 2009-2017		19	
118	A mixed hole transport material employing a highly planar conjugated molecule for efficient and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 5163-5170	13	21	
117	Reducing Anomalous Hysteresis in Perovskite Solar Cells by Suppressing the Interfacial Ferroelectric Order. 2020 , 12, 12275-12284		8	
116	Enhancement in the performance of nanostructured CuO-ZnO solar cells by band alignment 2020 , 10, 7839-7854		36	
115	Facile synthesis of Lucky cloverLhole-transport material for efficient and stable large-area perovskite solar cells. 2020 , 454, 227938		7	
114	Highly Efficient CsPbBr Planar Perovskite Solar Cells via Additive Engineering with NHSCN. 2020 , 12, 10579-10587		50	
113	An Emerging Visible-Light Organic-Inorganic Hybrid Perovskite for Photocatalytic Applications. 2020 , 10,		13	
112	Yolk-shell SnO2@TiO2 nanospheres as electron transport layer in mesoscopic perovskite solar cell. 2020 , 94, 731-742		3	
111	EDTC Fullerene Performs Significantly Better than EDTC as Electron Transporting Material in Perovskite Solar Cells. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 6813-6819	7.1	2	
110	Modulating MAPbI3 perovskite solar cells by amide molecules: Crystallographic regulation and surface passivation. 2021 , 56, 179-185		13	
109	A spiro-OMeTAD based semiconductor composite with over 100 IIC glass transition temperature for durable perovskite solar cells. 2021 , 81, 105655		16	
108	Enhancing efficiency and decreasing photocatalytic degradation of perovskite solar cells using a hydrophobic copper-modified titania electron transport layer. 2021 , 284, 119714		12	
107	Dopant-free dicyanofluoranthene-based hole transporting material with low cost enables efficient flexible perovskite solar cells. 2021 , 82, 105701		35	

106	Effects of ion migration and improvement strategies for the operational stability of perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 94-106	3.6	27
105	Pyridyl-functionalized spiro[fluoreneNanthene] as a dopant-free hole-transport material for stable perovskite solar cells. 2021 , 5, 7276-7285		2
104	Solar cell contacts: quantifying the impact of interfacial layers on selectivity, recombination, charge transfer, and Voc. 2021 , 5, 1767-1778		О
103	Research progress of light irradiation stability of functional layers in perovskite solar cells. 2021 , 0-0		O
102	A review of experimental and computational attempts to remedy stability issues of perovskite solar cells. 2021 , 7, e06211		4
101	Dual-function interface engineering for efficient perovskite solar cells. 2021 , 3, e12092		9
100	Mechanistic origin and unlocking of negative capacitance in perovskites solar cells. 2021 , 24, 102024		16
99	Air-Processed Infrared-Annealed Printed Methylammonium-Free Perovskite Solar Cells and Modules Incorporating Potassium-Doped Graphene Oxide as an Interlayer. 2021 , 13, 11741-11754		17
98	Carrier photodynamics in 2D perovskites with solution-processed silver and graphene contacts for bendable optoelectronics. 2021 , 5,		9
97	Impact of Vertical Inhomogeneity on the Charge Extraction in Perovskite Solar Cells: A Study by Depth-Dependent Photoluminescence. 2021 , 13, 11833-11844		7
96	Metastability in performance measurements of perovskite PV devices: a systematic approach *. 2021 , 3, 021001		4
95	Cyanide-free environment-friendly alternative to copper electroplating for zinc die-cast alloys. 2021 , 28, 38065-38073		1
94	Unraveling the Charge Transport Mechanism in Mechanochemically Processed Hybrid Perovskite Solar Cell. 2021 , 37, 5513-5521		4
93	Introduction: Progress of Thin Films and Coatings. 2021 , 1-58		1
92	Influence of Solvent on Stability and Electrophysical Properties of OrganicIhorganic Perovskites Films CH3NH3PbI3. 2021 , 57, 113-120		1
91	Elucidating the Trajectory of the Charge Transfer Mechanism and Recombination Process of Hybrid Perovskite Solar Cells. 2021 , 14,		1
90	Upconversion Photovoltaic Effect of WS/2D Perovskite Heterostructures by Two-Photon Absorption. <i>ACS Nano</i> , 2021 , 15, 10437-10443	16.7	6
89	Effect of crystallization on the photovoltaic parameters and stability of perovskite solar cells. 2021 , 199, 115089		2

(2021-2021)

88	The effects of heteroatoms-doping on the stability, electronic and magnetic properties of CH3NH3Pbl3 perovskite. 2021 , 24, 101027		4
87	High-Efficiency Lead-Free Wide Band Gap Perovskite Solar Cells via Guanidinium Bromide Incorporation. 2021 , 4, 5615-5624		4
86	Exploring Transport Behavior in Hybrid Perovskites Solar Cells via Machine Learning Analysis of Environmental-Dependent Impedance Spectroscopy. 2021 , 8, e2002510		7
85	Room-Temperature-Processed, Carbon-Based Fully Printed Mesoscopic Perovskite Solar Cells with 15% Efficiency. 2021 , 5, 2100274		5
84	Modification of compact TiO2 layer by TiCl4-TiCl3 mixture treatment and construction of high-efficiency carbon-based CsPbI2Br perovskite solar cells. 2021 , 63, 442-442		5
83	Unveiling the role of carbon black in printable mesoscopic perovskite solar cells. 2021 , 501, 230019		5
82	Effects of Structural Phase Transitions on Hysteresis in Air-Processed OrganicIhorganic Halide Perovskite Thin-Film Transistors. 2021 , 15, 2100211		O
81	Theory of Hysteresis in Halide Perovskites by Integration of the Equivalent Circuit.		11
80	Ligand-Free MAPbI3 Quantum Dot Solar Cells Based on Nanostructured Insulating Matrices. 2021 , 5, 2100204		6
79	Fundamentals of Hysteresis in Perovskite Solar Cells: From Structure-Property Relationship to Neoteric Breakthroughs. <i>Chemical Record</i> , 2021 ,	6.6	1
79 78		6.6	1
	Neoteric Breakthroughs. <i>Chemical Record</i> , 2021 , Low-frequency carrier kinetics in triple cation perovskite solar cells probed by impedance and	6.6	
78	Neoteric Breakthroughs. <i>Chemical Record</i> , 2021 , Low-frequency carrier kinetics in triple cation perovskite solar cells probed by impedance and modulus spectroscopy. 2021 , 386, 138430 Impedance Spectroscopy Dynamics of Biological Neural Elements: From Memristors to Neurons	6.6	12
78 77	Neoteric Breakthroughs. <i>Chemical Record</i> , 2021 , Low-frequency carrier kinetics in triple cation perovskite solar cells probed by impedance and modulus spectroscopy. 2021 , 386, 138430 Impedance Spectroscopy Dynamics of Biological Neural Elements: From Memristors to Neurons and Synapses. 2021 , 125, 9934-9949 Binary-mixed organic electron transport layers for planar heterojunction perovskite solar cells with	6.6	12
78 77 76	Neoteric Breakthroughs. <i>Chemical Record</i> , 2021 , Low-frequency carrier kinetics in triple cation perovskite solar cells probed by impedance and modulus spectroscopy. 2021 , 386, 138430 Impedance Spectroscopy Dynamics of Biological Neural Elements: From Memristors to Neurons and Synapses. 2021 , 125, 9934-9949 Binary-mixed organic electron transport layers for planar heterojunction perovskite solar cells with high efficiency and thermal reliability. 2021 , 420, 129678 Titanium carbide/zeolite imidazole framework-8/polylactic acid electrospun membrane for near-infrared regulated photothermal/photodynamic therapy of drug-resistant bacterial infections.	6.6	12 11 4
78 77 76 75	Neoteric Breakthroughs. <i>Chemical Record</i> , 2021 , Low-frequency carrier kinetics in triple cation perovskite solar cells probed by impedance and modulus spectroscopy. 2021 , 386, 138430 Impedance Spectroscopy Dynamics of Biological Neural Elements: From Memristors to Neurons and Synapses. 2021 , 125, 9934-9949 Binary-mixed organic electron transport layers for planar heterojunction perovskite solar cells with high efficiency and thermal reliability. 2021 , 420, 129678 Titanium carbide/zeolite imidazole framework-8/polylactic acid electrospun membrane for near-infrared regulated photothermal/photodynamic therapy of drug-resistant bacterial infections. 2021 , 599, 390-403 A simple and low-cost surface treatment to facilitate charge extraction and eliminate light soaking	6.6	12 11 4
78 77 76 75 74	Neoteric Breakthroughs. Chemical Record, 2021, Low-frequency carrier kinetics in triple cation perovskite solar cells probed by impedance and modulus spectroscopy. 2021, 386, 138430 Impedance Spectroscopy Dynamics of Biological Neural Elements: From Memristors to Neurons and Synapses. 2021, 125, 9934-9949 Binary-mixed organic electron transport layers for planar heterojunction perovskite solar cells with high efficiency and thermal reliability. 2021, 420, 129678 Titanium carbide/zeolite imidazole framework-8/polylactic acid electrospun membrane for near-infrared regulated photothermal/photodynamic therapy of drug-resistant bacterial infections. 2021, 599, 390-403 A simple and low-cost surface treatment to facilitate charge extraction and eliminate light soaking of polymer solar cells. 2021, 564, 150425 Light illumination and temperature-induced current lotage hysteresis in single-crystal perovskite	6.6	12 11 4 14

70	Rationally Induced Interfacial Dipole in Planar Heterojunction Perovskite Solar Cells for Reduced JN Hysteresis. 2018 , 8, 1800568		19
69	Thiocyanate assisted nucleation for high performance mix-cation perovskite solar cells with improved stability. 2020 , 466, 228320		17
68	Facilitating electron collection of organic photovoltaics by passivating trap states and tailoring work function. 2019 , 181, 9-16		3
67	Emerging Perovskite Solar Cell Technology: Remedial Actions for the Foremost Challenges. 2101085		11
66	Halide Ion Migration and its Role at the Interfaces in Perovskite Solar Cells. 2021, 2021, 4781		4
65	Effect of solvent on the perovskite thin film morphology and crystallinity. 2015, 64, 038403		6
64	Improvement of current characteristic of perovskite solar cells using dodecanedioic acid modified TiO2 electron transporting layer. 2018 , 67, 098801		2
63	Study on Carrier Separation in Perovskite Solar Cells by Operando Profiling of Electrical Potential Distribution. 2019 , 62, 9-14		
62	Characterization of organic and perovskite solar cells by impedance spectroscopy. 2019,		2
61	Investigation on the Effects of Additive on Performance and Photostability of PCDTBT:PC71BM Solar Cells. 2019 , 2019, 1-10		4
60	Tracking Intrinsic Properties of CH3NH3PbI3 Perovskite Thin Films Grown by Spin Coating Technique at Ambient Temperature. 2019 , 6, 59-68		
59	An Approach to Quantify the Negative Capacitance Features in a Triple-Cation based Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2101002	4.6	3
58	Charge Carrier Dynamics in Perovskite Solar Cells. 2021 , 389-429		2
57	Interface charge accumulation dynamics in 3D and quasi-2D perovskite solar cells. 2021 , 54, 014004		1
56	Impedance Spectroscopy of Metal Halide Perovskite Solar Cells from the Perspective of Equivalent Circuits. 2021 , 121, 14430-14484		23
55	Dodecylamine assisted perovskite growth for high-performance perovskite solar cells with low defect density. 2021 , 309, 131365		O
54	Current status and trends of carbon-based electrodes for fully solution-processed perovskite solar cells. 2021 , 68, 222-222		3
53	A Spiro-MeOTAD/GaO/Si p-i-n Junction Featuring Enhanced Self-Powered Solar-Blind Sensing via Balancing Absorption of Photons and Separation of Photogenerated Carriers. 2021 , 13, 57619-57628		2

52 Physics of Perovskite Solar Cells: Efficiency, Open-Circuit Voltage, and Recombination. **2022**, 127-172

Perovskite/P3HT graded heterojunction by an additive-assisted method for high-efficiency perovskite solar cells with carbon electrodes. Calloids and Surfaces A: Physicachemical and 5.1 1 Engineering Aspects, 2022, 613, 128072 Ambient environment induced synergetic improvement in morphology and iodine vacancy passivation by MAI surface engineering in mixed-cation lead mixed-halide (FA0.85MA0.15Pbi0.55Br0.45) perovskite solar cells. 2022, 29, 101703 Impedance spectroscopy study of defect/fon mediated electric field and its effect on the photovoltaic performance of perovskite solar cells based on different active layers. 2022, 237, 111548 Temperature and Frequency Dependence of Negative Capacitance, Dielectric and Electric Properties in La0.57Nd0.15r0.13Ag0.2Mn03 Ceramic. 2022, 206, 250-268 Temperature and Frequency Dependence of Negative Capacitance, Dielectric and Electric Properties in La0.57Nd0.15r0.13Ag0.2Mn03 Ceramic. 2022, 206, 250-268 Defects and stability of perovskite solar cells based on moisture-resistant dopant free hole transport materials by using a 2D-BAPb1 interfacial layer. Physical Chemistry Chemical Physics, 2022, Analysis of Light-Enhanced Capacitance Dispersion in Perovskite Solar Cells. Advanced Materials Interfaces. 2102275 Inverted Perovskite Solar Cells. The Emergence of a Highly Stable and Efficient Architecture. Energy Technology, 2100952 Defect healing via a gradient cooling strategy for efficient all-inorganic perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 4276-4285 Evaluating the Capacitive Response in Metal Halide Perovskite Solar Cells. Chemical Record, 2022, e2027063303 Peroperature of Advanced Materials in encapsulated MAPb13 and leadtin (PbSn) perovskite solar cells in Lanced Performance of Carbon-Based, Fully Printed Mesoscopic Perovskite Solar Cells through Defects Passivation. Advanced Materials Interfaces, 2100395 Chemical Inductor. Journal of the American Chemical Society, 2022. The preparation of CH3NH3Sn13/Sn02/Pd/Au gas sensor material for				
passivation by MAI surface engineering in mixed-cation lead mixed-halide (FAO.85MAO.15PbIO.55BrO.45) perovskite solar cells. 2022, 29, 101703 Impedance spectroscopy study of defect/ion mediated electric field and its effect on the photovoltaic performance of perovskite solar cells based on different active layers. 2022, 237, 111548 Temperature and Frequency Dependence of Negative Capacitance, Dielectric and Electric Properties in LaO.57NdO.15rO.13AgO.2MnO3 Ceramic. 2022, 206, 250-268 Operation of Properties in LaO.57NdO.15rO.13AgO.2MnO3 Ceramic. 2022, 206, 250-268 Temperature and Frequency Dependence of Negative Capacitance, Dielectric and Electric Properties in LaO.57NdO.15rO.13AgO.2MnO3 Ceramic. 2022, 206, 250-268 Operation of Properties in LaO.57NdO.15rO.13AgO.2MnO3 Ceramic. 2022, 206, 250-268 Temperature and Frequency Dependence of Negative Capacitance, Dielectric and Electric Properties in LaO.57NdO.15rO.13AgO.2MnO3 Ceramic. 2022, 206, 250-268 Operation of Lao.57NdO.15rO.13AgO.2MnO3 Ceramic. 2022, 2026 Cells. Advanced Materials Interfaces, 2102275 Inverted Perovskite Solar Cells: The Emergence of a Highly Stable and Efficient Architecture. Energy Technology, 2100952 Inverted Perovskite Solar Cells: The Emergence of a Highly Stable and Efficient Architecture. Energy Technology, 2100952 Defect healing via a gradient cooling strategy for efficient all-inorganic perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 4276-4285 Defect healing via a gradient cooling strategy for efficient all-inorganic perovskite solar cells. Journal of Materials Research, 1 Enhanced Performance of Carbon-Based, Fully Printed Mesoscopic Perovskite Solar Cells through Defects Passivation. Advanced Materials Interfaces, 2100395 The preparation of CH3NH3Sn3/Sn02/Pd/Au gas sensor material for detecting CO and the Function of each component. Journal of Materials Science: Materials in Electronic, 2022, 33, 7463-7476 The preparation of CH3NH3Sn3/Sn02/Pd/Au gas sensor material for detecting CO and the Function	51	perovskite solar cells with carbon electrodes. Colloids and Surfaces A: Physicochemical and	5.1	1
photovoltaic performance of perovskite solar cells based on different active layers. 2022, 237, 111548 Temperature and Frequency Dependence of Negative Capacitance, Dielectric and Electric Properties in La0.57Nd0.15r0.13Ag0.2MnO3 Ceramic. 2022, 206, 250-268 Operation of Properties in La0.57Nd0.15r0.13Ag0.2MnO3 Ceramic. 2022, 206, 250-268 Temperature and Frequency Dependence of Negative Capacitance, Dielectric and Electric Properties in La0.57Nd0.15r0.13Ag0.2MnO3 Ceramic. 2022, 206, 250-268 Operation of Properties in La0.57Nd0.15r0.13Ag0.2MnO3 Ceramic. 2022, 206, 250-268 Tenhancing the efficiency and stability of perovskite solar cells based on moisture-resistant dopant free hole transport materials by using a 2D-BAPb1 interfacal layer. Physical Chemistry Chemical Physics, 2022, Analysis of Light-Enhanced Capacitance Dispersion in Perovskite Solar Cells. Advanced Materials Interfaces, 2102275 Inverted Perovskite Solar Cells: The Emergence of a Highly Stable and Efficient Architecture. Energy Technology, 2100952 Defect healing via a gradient cooling strategy for efficient all-inorganic perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 4276-4285 Technology, 2100952 Tevaluating the Capacitive Response in Metal Halide Perovskite Solar Cells. Chemical Record, 2022, e2021003303 Pegative capacitance and hysteresis in encapsulated MAPb13 and leadlin (PbBn) perovskite solar cells. Journal of Materials Research, 1 Enhanced Performance of Carbon-Based, Fully Printed Mesoscopic Perovskite Solar Cells through Defects Passivation. Advanced Materials Interfaces, 2100395 The preparation of CH3NH3Sn13/Sn02/Pd/Au gas sensor material for detecting CO and the function of each component. Journal of Materials Science: Materials in Electronics, 2022, 33, 7463-7476 The preparation of CH3NH3Sn13/Sn02/Pd/Au gas sensor material for detecting CO and the function of each component. Journal of Materials Science: Materials in Electronics, 2022, 33, 7463-7476 The preparation of CH3NH3Sn13/Sn02/Pd/Au gas sensor	50	passivation by MAI surface engineering in mixed-cation lead mixed-halide		О
Defects and stability of perovskite solar cells: a critical analysis. Enhancing the efficiency and stability of perovskite solar cells based on moisture-resistant dopant free hole transport materials by using a 2D-BAPbI interfacial layer Physical Chemistry Chemical 3.6 1 Physics, 2022. Analysis of Light-Enhanced Capacitance Dispersion in Perovskite Solar Cells. Advanced Materials Interfaces, 2102275 Inverted Perovskite Solar Cells: The Emergence of a Highly Stable and Efficient Architecture. Energy 72 Technology, 2100952 Defect healing via a gradient cooling strategy for efficient all-inorganic perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 4276-4285 Tevaluating the Capacitive Response in Metal Halide Perovskite Solar Cells Chemical Record, 2022, e2021003303 Negative capacitance and hysteresis in encapsulated MAPbI3 and leadlin (PbBn) perovskite solar cells. Journal of Materials Research, 1 Enhanced Performance of Carbon-Based, Fully Printed Mesoscopic Perovskite Solar Cells through Defects Passivation. Advanced Materials Interfaces, 2100395 Chemical Inductor Journal of the American Chemical Society, 2022, The preparation of CH3NH3Snl3/SnO2/Pd/Au gas sensor material for detecting CO and the function of each component. Journal of Materials Science: Materials in Electronics, 2022, 33, 7463-7476 Research Progress of High-Sensitivity Perovskite Photodetectors: A Review of Photodetectors: Noise, Structure, and Materials and Devices, 2022, 7, 100440 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	49			2
Enhancing the efficiency and stability of perovskite solar cells based on moisture-resistant dopant free hole transport materials by using a 2D-BAPbI interfacial layer Physical Chemistry Chemical 3.6 1 Analysis of Light-Enhanced Capacitance Dispersion in Perovskite Solar Cells. Advanced Materials Interfaces, 2102275 Analysis of Light-Enhanced Capacitance Dispersion in Perovskite Solar Cells. Advanced Materials 1 Inverted Perovskite Solar Cells: The Emergence of a Highly Stable and Efficient Architecture. Energy 7 Technology, 2100952 Defect healing via a gradient cooling strategy for efficient all-inorganic perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 4276-4285 Total 2 Evaluating the Capacitive Response in Metal Halide Perovskite Solar Cells Chemical Record, 2022, e202 1003303 Negative capacitance and hysteresis in encapsulated MAPbI3 and leadlin (PbBn) perovskite solar cells. Journal of Materials Research, 1 Enhanced Performance of Carbon-Based, Fully Printed Mesoscopic Perovskite Solar Cells through Defects Passivation. Advanced Materials Interfaces, 2100395 Chemical Inductor Journal of the American Chemical Society, 2022, The preparation of CH3NH3SnI3/SnO2/Pd/Au gas sensor material for detecting CO and the function of each component. Journal of Materials Science: Materials in Electronics, 2022, 33, 7463-7476 Research Progress of High-Sensitivity Perovskite Photodetectors: A Review of Photodetectors: Noise, Structure, and Materials and Devices, 2022, 7, 100440 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	48	· · · · · · · · · · · · · · · · · · ·		0
free hole transport materials by using a 2D-BAPbl interfacial layer. <i>Physical Chemistry Chemical Physics</i> , 2022, Analysis of Light-Enhanced Capacitance Dispersion in Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2102275 46 1 Inverted Perovskite Solar Cells: The Emergence of a Highly Stable and Efficient Architecture. <i>Energy Technology</i> , 2100952 3.5 2 Defect healing via a gradient cooling strategy for efficient all-inorganic perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 4276-4285 7.1 2 Evaluating the Capacitive Response in Metal Halide Perovskite Solar Cells. <i>Chemical Record</i> , 2022, e2021063303 Negative capacitance and hysteresis in encapsulated MAPbI3 and leadlin (PbBn) perovskite solar cells. <i>Journal of Materials Research</i> , 1 Enhanced Performance of Carbon-Based, Fully Printed Mesoscopic Perovskite Solar Cells through Defects Passivation. <i>Advanced Materials Interfaces</i> , 2100395 4.6 1 The preparation of CH3NH3SnI3/SnO2/Pd/Au gas sensor material for detecting CO and the function of each component. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 7463-7476 Research Progress of High-Sensitivity Perovskite Photodetectors: A Review of Photodetectors: Noise, Structure, and Materials. <i>ACS Applied Electronic Materials</i> . TCO-free perovskite solar cells in taking advantage of SWCNT/TiO2 core/shell sponge. <i>Journal of Science: Advanced Materials and Devices</i> , 2022, 7, 100440 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	47	Defects and stability of perovskite solar cells: a critical analysis.		7
Inverted Perovskite Solar Cells: The Emergence of a Highly Stable and Efficient Architecture. Energy Technology, 2100952 Defect healing via a gradient cooling strategy for efficient all-inorganic perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 4276-4285 Fevaluating the Capacitive Response in Metal Halide Perovskite Solar Cells Chemical Record, 2022, e20210093303 Negative capacitance and hysteresis in encapsulated MAPbI3 and leadtin (PbBn) perovskite solar cells. Journal of Materials Research, 1 Enhanced Performance of Carbon-Based, Fully Printed Mesoscopic Perovskite Solar Cells through Defects Passivation. Advanced Materials Interfaces, 2100395 Chemical Inductor Journal of the American Chemical Society, 2022, The preparation of CH3NH3SnI3/SnO2/Pd/Au gas sensor material for detecting CO and the function of each component. Journal of Materials Science: Materials in Electronics, 2022, 33, 7463-7476 Research Progress of High-Sensitivity Perovskite Photodetectors: A Review of Photodetectors: Noise, Structure, and Materials. ACS Applied Electronic Materials, TCO-free perovskite solar cells in taking advantage of SWCNT/TiO2 core/shell sponge. Journal of Science: Advanced Materials and Devices, 2022, 7, 100440 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	46	free hole transport materials by using a 2D-BAPbI interfacial layer Physical Chemistry Chemical	3.6	1
Defect healing via a gradient cooling strategy for efficient all-inorganic perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 4276-4285 Evaluating the Capacitive Response in Metal Halide Perovskite Solar Cells Chemical Record, 2022, e2021003303 Negative capacitance and hysteresis in encapsulated MAPbI3 and leadlin (PbBn) perovskite solar cells. Journal of Materials Research, 1 Enhanced Performance of Carbon-Based, Fully Printed Mesoscopic Perovskite Solar Cells through Defects Passivation. Advanced Materials Interfaces, 2100395 4.6 1 The preparation of CH3NH3SnI3/SnO2/Pd/Au gas sensor material for detecting CO and the function of each component. Journal of Materials Science: Materials in Electronics, 2022, 33, 7463-7476 Research Progress of High-Sensitivity Perovskite Photodetectors: A Review of Photodetectors: Noise, Structure, and Materials. ACS Applied Electronic Materials TCO-free perovskite solar cells in taking advantage of SWCNT/TiO2 core/shell sponge. Journal of Science: Advanced Materials and Devices, 2022, 7, 100440 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	45		4.6	1
Evaluating the Capacitive Response in Metal Halide Perovskite Solar Cells Chemical Record, 2022, e20210063303 Negative capacitance and hysteresis in encapsulated MAPbI3 and leadfin (PbBn) perovskite solar cells. Journal of Materials Research, 1 Enhanced Performance of Carbon-Based, Fully Printed Mesoscopic Perovskite Solar Cells through Defects Passivation. Advanced Materials Interfaces, 2100395 Chemical Inductor Journal of the American Chemical Society, 2022, The preparation of CH3NH3SnI3/SnO2/Pd/Au gas sensor material for detecting CO and the function of each component. Journal of Materials Science: Materials in Electronics, 2022, 33, 7463-7476 Research Progress of High-Sensitivity Perovskite Photodetectors: A Review of Photodetectors: Noise, Structure, and Materials. ACS Applied Electronic Materials, TCO-free perovskite solar cells in taking advantage of SWCNT/TiO2 core/shell sponge. Journal of Science: Advanced Materials and Devices, 2022, 7, 100440 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	44		3.5	2
Negative capacitance and hysteresis in encapsulated MAPbI3 and leadlin (PbBn) perovskite solar cells. Journal of Materials Research, 1 Enhanced Performance of Carbon-Based, Fully Printed Mesoscopic Perovskite Solar Cells through Defects Passivation. Advanced Materials Interfaces, 2100395 Chemical Inductor Journal of the American Chemical Society, 2022, The preparation of CH3NH3SnI3/SnO2/Pd/Au gas sensor material for detecting CO and the function of each component. Journal of Materials Science: Materials in Electronics, 2022, 33, 7463-7476 Research Progress of High-Sensitivity Perovskite Photodetectors: A Review of Photodetectors: Noise, Structure, and Materials. ACS Applied Electronic Materials, TCO-free perovskite solar cells in taking advantage of SWCNT/TiO2 core/shell sponge. Journal of Science: Advanced Materials and Devices, 2022, 7, 100440 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	43		7.1	2
Enhanced Performance of Carbon-Based, Fully Printed Mesoscopic Perovskite Solar Cells through Defects Passivation. Advanced Materials Interfaces, 2100395 Chemical Inductor Journal of the American Chemical Society, 2022, The preparation of CH3NH3SnI3/SnO2/Pd/Au gas sensor material for detecting CO and the function of each component. Journal of Materials Science: Materials in Electronics, 2022, 33, 7463-7476 Research Progress of High-Sensitivity Perovskite Photodetectors: A Review of Photodetectors: Noise, Structure, and Materials. ACS Applied Electronic Materials, TCO-free perovskite solar cells in taking advantage of SWCNT/TiO2 core/shell sponge. Journal of Science: Advanced Materials and Devices, 2022, 7, 100440 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	42	Evaluating the Capacitive Response in Metal Halide Perovskite Solar Cells Chemical Record, 2022, e202	2100633	803
Defects Passivation. Advanced Materials Interfaces, 2100395 Chemical Inductor Journal of the American Chemical Society, 2022, The preparation of CH3NH3SnI3/SnO2/Pd/Au gas sensor material for detecting CO and the function of each component. Journal of Materials Science: Materials in Electronics, 2022, 33, 7463-7476 Research Progress of High-Sensitivity Perovskite Photodetectors: A Review of Photodetectors: Noise, Structure, and Materials. ACS Applied Electronic Materials, TCO-free perovskite solar cells in taking advantage of SWCNT/TiO2 core/shell sponge. Journal of Science: Advanced Materials and Devices, 2022, 7, 100440 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	41		2.5	
The preparation of CH3NH3SnI3/SnO2/Pd/Au gas sensor material for detecting CO and the function of each component. <i>Journal of Materials Science: Materials in Electronics</i> , 2022 , 33, 7463-7476 2.1 0 Research Progress of High-Sensitivity Perovskite Photodetectors: A Review of Photodetectors: Noise, Structure, and Materials. <i>ACS Applied Electronic Materials</i> , 4 2 TCO-free perovskite solar cells in taking advantage of SWCNT/TiO2 core/shell sponge. <i>Journal of Science: Advanced Materials and Devices</i> , 2022 , 7, 100440 4.2 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	40		4.6	1
function of each component. Journal of Materials Science: Materials in Electronics, 2022, 33, 7463-7476 Research Progress of High-Sensitivity Perovskite Photodetectors: A Review of Photodetectors: Noise, Structure, and Materials. ACS Applied Electronic Materials, TCO-free perovskite solar cells in taking advantage of SWCNT/TiO2 core/shell sponge. Journal of Science: Advanced Materials and Devices, 2022, 7, 100440 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	39	Chemical Inductor Journal of the American Chemical Society, 2022,	16.4	10
Noise, Structure, and Materials. ACS Applied Electronic Materials, 4 2 TCO-free perovskite solar cells in taking advantage of SWCNT/TiO2 core/shell sponge. Journal of Science: Advanced Materials and Devices, 2022, 7, 100440 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	38		2.1	О
Science: Advanced Materials and Devices, 2022, 7, 100440 Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms	37		4	2
	36		4.2	
	35	Evaluation of Active Layer Thickness Influence in Long-Term Stability and Degradation Mechanisms in CsFAPbIBr Perovskite Solar Cells. <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 11668	2.6	0

34	Dual-function of the ZnO nano-sheets as light absorber scaffold and electron transport material in perovskite solar cells. <i>Advances in Natural Sciences: Nanoscience and Nanotechnology</i> , 2021 , 12, 045004	1.6	
33	CHAPTER 10. Deposition Techniques for Perovskite Solar Cells. <i>RSC Nanoscience and Nanotechnology</i> , 341-366		1
32	Could two dimensional perovskites fundamentally solve the instability of perovskite photovoltaics?. <i>Chinese Physics B</i> ,	1.2	
31	Universal control strategy for anomalous ionic-electronic phenomenology in perovskite solar cells efficiency measurements. <i>Materials Today Energy</i> , 2022 , 101031	7	
30	Recent development in MOFs for perovskite-based solar cells. 2022, 507-534		
29	Bifunctional interface modification for efficient and UV-robust Fe2O3-based planar organicIhorganic hybrid perovskite solar cells. <i>Advanced Composites and Hybrid Materials</i> ,	8.7	1
28	Understanding equivalent circuits in perovskite solar cells. Insights from drift-diffusion simulation. <i>Physical Chemistry Chemical Physics</i> ,	3.6	6
27	Ion Migration in Halide Perovskites. 2022 , 101-128		O
26	Construction of multilevel network structured carbon nanofiber counter electrode and back interface engineering in all inorganic HTLfree perovskite solar cells. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022 , 648, 129420	5.1	1
25	A trifluorothymine interlayer reduces the degradation of perovskite and controls the cracks of hole transport layers. <i>Journal of Materials Chemistry A</i> ,	13	
24	Negative Transient Spikes in Halide Perovskites. ACS Energy Letters, 2602-2610	20.1	3
23	Energy band tuning induced by g-C3N4 interface engineering for efficient and stable perovskite solar cells. <i>Materials Today Communications</i> , 2022 , 32, 103899	2.5	O
22	Quasi-ohmic contact formation assisted by the back contact with Cu2Te nanoparticles@reduced graphene oxide composites for highly efficient CdTe solar cells. <i>Journal of Alloys and Compounds</i> , 2022 , 921, 166100	5.7	1
21	Recent Criterion on Stability Enhancement of Perovskite Solar Cells. <i>Processes</i> , 2022 , 10, 1408	2.9	O
20	Insights into HTM-Free Mesoporous Perovskite Solar Cells with a Carbon Electrode Using Electrochemical Impedance Spectroscopy Analysis.		
19	Transition from Capacitive to Inductive Hysteresis: A Neuron-Style Model to Correlate IIV Curves to Impedances of Metal Halide Perovskites. 2022 , 126, 13560-13578		4
18	Maximizing Merits of Undesirable EFAPbI 3 by Constructing yellow/black Heterophase Bilayer for Efficient and Stable Perovskite Photovoltaics. 2204642		3
17	Investigating PCE of PSCs with N-based groups doped TiO2 ETLs prepared by sol-gel and sputtering technologies. 2022 , 327, 133055		

CITATION REPORT

16	Polarization suppresses local photocurrent in triple-cation mixed-halide perovskite. 2022 , 132, 144102	О
15	Highly crystalline metal oxide semiconductor electron transport bilayers to improve the interface between the electron transport and active layer in planar perovskite solar cells.	O
14	Phase-Controlled Strategy for High-Quality Single-Source Vapor-Deposited Cs2AgBiBr6 Thin Films. 2022 , 5, 15058-15068	О
13	Enhanced Visible Light Response and Characterization of Nanoscale TiO2/WO3½ Composite Photocatalyst by Solஞel Synthesis.	O
12	High-pressure investigations in CH3NH3PbX3 (X = I, Br, and Cl): S. 2022 , 106,	1
11	Interfacial Engineering of Au@Nb2CTx-MXene Modulates the Growth Strain, Suppresses the Auger Recombination, and Enables an Open-Circuit Voltage of over 1.2 V in Perovskite Solar Cells.	O
10	Perovskite Solar Cells in the Shadow: Understanding the Mechanism of Reverse-Bias Behavior toward Suppressed Reverse-Bias Breakdown and Reverse-Bias Induced Degradation. 2203596	О
9	Analysis of the ionic and dielectric properties of perovskites by impedance spectroscopy. 2023 , 133, 045501	O
8	Electrical Charge Coupling Dominates the Hysteresis Effect of Halide Perovskite Devices. 2023 , 14, 1014-1021	O
7	Universal approach for diffusion quantification applied to lead halide perovskite single crystals. 2023 , 129,	O
6	Lead-free halide perovskites. 2023 , 187-237	O
5	Interface Passivation of Perovskite Solar Cells by Fmoc-Ala-OH Amino Acids. 2023 , 52, 2303-2311	O
4	Parameterization of the apparent chemical inductance of metal halide perovskite solar cells exhibiting constant-phase-element behavior. 2023 , 560, 232614	О
3	2D-3D perovskite memristor with low energy consumption and high stability for neural morphology calculation.	O
2	Advancing Lead-Free Cs2AgBiBr6 perovskite solar cells: Challenges and strategies. 2023 , 253, 563-583	О
1	Understanding the Origin of Light Intensity and Temperature Dependence of Photodetection Properties in a MAPbBr3 Single-Crystal-Based Photoconductor.	O