

# Yanfa Yan

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

471  
papers

33,274  
citations

94  
h-index

171  
g-index

522  
ext. papers

38,696  
ext. citations

10.3  
avg, IF

7.72  
L-index

#	Paper	IF	Citations
471	Metastable Dion-Jacobson 2D structure enables efficient and stable perovskite solar cells. <i>Science</i> , <b>2022</b> , 375, 71-76	33.3	51
470	Urbach Energy and Open-Circuit Voltage Deficit for Mixed Anion-Cation Perovskite Solar Cells.. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2022</b> ,	9.5	7
469	Defect Properties of Halide Perovskites for Photovoltaic Applications <b>2022</b> , 107-126		
468	Copper iodide nanoparticles as a hole transport layer to CdTe photovoltaics: 5.5 % efficient back-illuminated bifacial CdTe solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2022</b> , 235, 111451	6.4	3
467	Self-Trapped Excitons and Broadband Emission in Metal Halide Perovskites <b>2022</b> , 37-63		
466	Controlling the Formation Process of Methylammonium-Free Halide Perovskite Films for a Homogeneous Incorporation of Alkali Metal Cations Beneficial to Solar Cell Performance. <i>Advanced Energy Materials</i> , <b>2022</b> , 12, 2103618	21.8	7
465	Gradient Doping in Sn-Pb Perovskites by Barium Ions for Efficient Single-junction and Tandem Solar Cells.. <i>Advanced Materials</i> , <b>2022</b> , e2110351	24	19
464	Evolution of defects during the degradation of metal halide perovskite solar cells under reverse bias and illumination. <i>Nature Energy</i> , <b>2022</b> , 7, 65-73	62.3	28
463	Improving CdSeTe Devices With a Back Buffer Layer of CuxAlOy. <i>IEEE Journal of Photovoltaics</i> , <b>2021</b> , 1-6	3.7	1
462	All Perovskite Tandem Solar Cells <b>2021</b> , 509-539		
461	Electrical doping in halide perovskites. <i>Nature Reviews Materials</i> , <b>2021</b> , 6, 531-549	73.3	67
460	Efficient and Stable Red Perovskite Light-Emitting Diodes with Operational Stability >300 h. <i>Advanced Materials</i> , <b>2021</b> , 33, e2008820	24	38
459	Hybrid 3D Nanostructure-Based Hole Transport Layer for Highly Efficient Inverted Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 16611-16619	9.5	2
458	Low-energy room-temperature optical switching in mixed-dimensionality nanoscale perovskite heterojunctions. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	15
457	Influence of Post-selenization Temperature on the Performance of Substrate-Type Sb2Se3 Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2021</b> , 4, 4313-4318	6.1	10
456	Enabling bifacial thin film devices by developing a back surface field using CuxAlOy. <i>Nano Energy</i> , <b>2021</b> , 83, 105827	17.1	10
455	Temperature-dependency of ferroelectric behavior in CH3NH3PbI3 perovskite films measured by the Sawyer-Tower method. <i>MRS Advances</i> , <b>2021</b> , 6, 613-617	0.7	

454	Low-temperature and effective ex situ group V doping for efficient polycrystalline CdSeTe solar cells. <i>Nature Energy</i> , <b>2021</b> , 6, 715-722	62.3	6
453	On the design and performance of InGaN/Si double-junction photocathodes. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 243906	3.4	5
452	Understanding the Interplay between CdSe Thickness and Cu Doping Temperature in CdSe/CdTe Devices <b>2021</b> ,		2
451	Mitigating ion migration in perovskite solar cells. <i>Trends in Chemistry</i> , <b>2021</b> , 3, 575-588	14.8	22
450	Protecting Perovskite Solar Cells against Moisture-Induced Degradation with Sputtered Inorganic Barrier Layers. <i>ACS Applied Energy Materials</i> , <b>2021</b> , 4, 7571-7578	6.1	6
449	A Nanocrystal Catalyst Incorporating a Surface Bound Transition Metal to Induce Photocatalytic Sequential Electron Transfer Events. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 11361-11369	16.4	17
448	Impact of Humidity and Temperature on the Stability of the Optical Properties and Structure of MAPbI <sub>3</sub> , MAFAPI and (FAPbI) <sub>2</sub> (MAPbBr) Perovskite Thin Films. <i>Materials</i> , <b>2021</b> , 14,	3.5	3
447	Metal Halide Scintillators with Fast and Self-Absorption-Free Defect-Bound Excitonic Radioluminescence for Dynamic X-Ray Imaging. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2007921	15.6	35
446	Structural Properties and Stability of Inorganic CsPbI <sub>3</sub> Perovskites. <i>Small Structures</i> , <b>2021</b> , 2, 2000089	8.7	13
445	Optical and Electronic Losses Arising from Physically Mixed Interfacial Layers in Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 4923-4934	9.5	7
444	Reconfiguring the band-edge states of photovoltaic perovskites by conjugated organic cations. <i>Science</i> , <b>2021</b> , 371, 636-640	33.3	69
443	Unraveling the surface state of photovoltaic perovskite thin film. <i>Matter</i> , <b>2021</b> , 4, 2417-2428	12.7	9
442	Effects of Cu Precursor on the Performance of Efficient CdTe Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 38432-38440	9.5	0
441	Superior photo-carrier diffusion dynamics in organic-inorganic hybrid perovskites revealed by spatiotemporal conductivity imaging. <i>Nature Communications</i> , <b>2021</b> , 12, 5009	17.4	3
440	Optical properties of thin film Sb <sub>2</sub> Se <sub>3</sub> and identification of its electronic losses in photovoltaic devices. <i>Solar Energy</i> , <b>2021</b> , 228, 38-44	6.8	4
439	Understanding the Interplay Between CdSe Thickness and Cu Doping Temperature in CdSe/CdTe Devices. <i>IEEE Journal of Photovoltaics</i> , <b>2021</b> , 1-5	3.7	2
438	Metastable Dion-Jacobson 2D structure enables efficient and stable perovskite solar cells. <i>Science</i> , <b>2021</b> , eabj2637	33.3	2
437	Perovskite Solar Cells Go Bifacial-Mutual Benefits for Efficiency and Durability.. <i>Advanced Materials</i> , <b>2021</b> , e2106805	24	2

436	Back-Surface Passivation of CdTe Solar Cells Using Solution-Processed Oxidized Aluminum. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 51337-51343	9.5	3
435	CuSCN as the Back Contact for Efficient ZMO/CdTe Solar Cells. <i>Materials</i> , <b>2020</b> , 13,	3.5	2
434	The 2020 photovoltaic technologies roadmap. <i>Journal Physics D: Applied Physics</i> , <b>2020</b> , 53, 493001	3	128
433	Interaction engineering in organic/inorganic hybrid perovskite solar cells. <i>Materials Horizons</i> , <b>2020</b> , 7, 2208-2236	14.4	13
432	Sputtered indium tin oxide as a recombination layer formed on the tunnel oxide/poly-Si passivating contact enabling the potential of efficient monolithic perovskite/Si tandem solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2020</b> , 210, 110482	6.4	20
431	Influence of Charge Transport Layers on Capacitance Measured in Halide Perovskite Solar Cells. <i>Joule</i> , <b>2020</b> , 4, 644-657	27.8	29
430	Effects of intrinsic and atmospherically induced defects in narrow bandgap (FASnI)(MAPbI) perovskite films and solar cells. <i>Journal of Chemical Physics</i> , <b>2020</b> , 152, 064705	3.9	8
429	Correlating Hysteresis and Stability with Organic Cation Composition in the Two-Step Solution-Processed Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 10588-10598	8.5	17
428	In Situ Tin(II) Complex Antisolvent Process Featuring Simultaneous Quasi-Core/Shell Structure and Heterojunction for Improving Efficiency and Stability of Low-Bandgap Perovskite Solar Cells. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 1903013	21.8	22
427	Is Cs <sub>2</sub> TiBr <sub>6</sub> a promising Pb-free perovskite for solar energy applications?. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 4049-4054	13	29
426	Maximize CdTe solar cell performance through copper activation engineering. <i>Nano Energy</i> , <b>2020</b> , 73, 104835	17.1	19
425	Lead chloride perovskites for p-type transparent conductors: A critical theoretical reevaluation. <i>Physical Review Materials</i> , <b>2020</b> , 4,	3.2	4
424	Incorporation of Arsenic in CdSe/CdTe Solar Cells During Close Spaced Sublimation of CdTe:As <b>2020</b> ,		2
423	Open-circuit Voltage Exceeding 840 mV for All-Sputtered CdS/CdTe Devices <b>2020</b> ,		2
422	Cryogenic spatial/temporal imaging of surface photocarrier dynamics in MAPbI <sub>3</sub> films at the single grain level. <i>AIP Advances</i> , <b>2020</b> , 10, 125108	1.5	1
421	Interface modification of sputtered NiO <sub>x</sub> as the hole-transporting layer for efficient inverted planar perovskite solar cells. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 1972-1980	7.1	30
420	High Remaining Factors in the Photovoltaic Performance of Perovskite Solar Cells after High-Fluence Electron Beam Irradiations. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 1330-1336	3.8	9
419	Origin of Broad-Band Emission and Impact of Structural Dimensionality in Tin-Alloyed Ruddlesden-Popper Hybrid Lead Iodide Perovskites. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 347-352	20.1	36

418	Charge Compensating Defects in Methylammonium Lead Iodide Perovskite Suppressed by Formamidinium Inclusion. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 121-128	6.4	14
417	Low-bandgap mixed tin/lead iodide perovskites with reduced methylammonium for simultaneous enhancement of solar cell efficiency and stability. <i>Nature Energy</i> , <b>2020</b> , 5, 768-776	62.3	80
416	Arylammonium-Assisted Reduction of the Open-Circuit Voltage Deficit in Wide-Bandgap Perovskite Solar Cells: The Role of Suppressed Ion Migration. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 2560-2568	20.1	56
415	Simple descriptor derived from symbolic regression accelerating the discovery of new perovskite catalysts. <i>Nature Communications</i> , <b>2020</b> , 11, 3513	17.4	68
414	InGaN/Si Double-Junction Photocathode for Unassisted Solar Water Splitting. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 3741-3751	20.1	17
413	A Multi-functional Molecular Modifier Enabling Efficient Large-Area Perovskite Light-Emitting Diodes. <i>Joule</i> , <b>2020</b> , 4, 1977-1987	27.8	70
412	Narrow-Bandgap Mixed Lead/Tin-Based 2D Dion-Jacobson Perovskites Boost the Performance of Solar Cells. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 15049-15057	16.4	53
411	Effects of post-deposition CdCl <sub>2</sub> annealing on electronic properties of CdTe solar cells. <i>Solar Energy</i> , <b>2020</b> , 211, 938-948	6.8	4
410	Semi-transparent p-type barium copper sulfide as a back contact interface layer for cadmium telluride solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2020</b> , 218, 110764	6.4	3
409	Ultrafast Control of Excitonic Rashba Fine Structure by Phonon Coherence in the Metal Halide Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Physical Review Letters</i> , <b>2020</b> , 124, 157401	7.4	16
408	Spontaneous low-temperature crystallization of FAPbI <sub>3</sub> for highly efficient perovskite solar cells. <i>Science Bulletin</i> , <b>2019</b> , 64, 1608-1616	10.6	27
407	Achieving High-Quality Sn-Pb Perovskite Films on Complementary Metal-Oxide-Semiconductor-Compatible Metal/Silicon Substrates for Efficient Imaging Array. <i>ACS Nano</i> , <b>2019</b> , 13, 11800-11808	16.7	22
406	Perovskite-a Perfect Top Cell for Tandem Devices to Break the S-Q Limit. <i>Advanced Science</i> , <b>2019</b> , 6, 1801704	13.04	52
405	A Cu <sub>3</sub> PS <sub>4</sub> nanoparticle hole selective layer for efficient inverted perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 4604-4610	13	18
404	Irradiance and temperature considerations in the design and deployment of high annual energy yield perovskite/CIGS tandems. <i>Sustainable Energy and Fuels</i> , <b>2019</b> , 3, 1841-1851	5.8	15
403	Wide-bandgap, low-bandgap, and tandem perovskite solar cells. <i>Semiconductor Science and Technology</i> , <b>2019</b> , 34, 093001	1.8	57
402	Parametric Optical Property Database for CdSe <sub>1-x</sub> S <sub>x</sub> Alloys. <i>Electronic Materials Letters</i> , <b>2019</b> , 15, 500-504	4.9	3
401	Solution-processed copper (I) thiocyanate (CuSCN) for highly efficient CdSe/CdTe thin-film solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , <b>2019</b> , 27, 665	6.8	11

400	Carrier lifetimes of $>1 \mu$ s in Sn-Pb perovskites enable efficient all-perovskite tandem solar cells. <i>Science</i> , <b>2019</b> , 364, 475-479	33.3	496
399	Achieving a high open-circuit voltage in inverted wide-bandgap perovskite solar cells with a graded perovskite homojunction. <i>Nano Energy</i> , <b>2019</b> , 61, 141-147	17.1	97
398	Low-reflection, (110)-orientation-preferred CsPbBr nanonet films for application in high-performance perovskite photodetectors. <i>Nanoscale</i> , <b>2019</b> , 11, 9302-9309	7.7	28
397	Eliminating S-Kink To Maximize the Performance of MgZnO/CdTe Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 2896-2903	6.1	28
396	Improving Performance and Stability of Planar Perovskite Solar Cells through Grain Boundary Passivation with Block Copolymers. <i>Solar Rrl</i> , <b>2019</b> , 3, 1900078	7.1	28
395	From Lead Halide Perovskites to Lead-Free Metal Halide Perovskites and Perovskite Derivatives. <i>Advanced Materials</i> , <b>2019</b> , 31, e1803792	24	346
394	Low-Bandgap Mixed Tin-Lead Perovskites and Their Applications in All-Perovskite Tandem Solar Cells. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1808801	15.6	81
393	Trifluoroacetate induced small-grained CsPbBr perovskite films result in efficient and stable light-emitting devices. <i>Nature Communications</i> , <b>2019</b> , 10, 665	17.4	227
392	Oxide perovskites, double perovskites and derivatives for electrocatalysis, photocatalysis, and photovoltaics. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 442-462	35.4	229
391	Measurement of band offsets and shunt resistance in CdTe solar cells through temperature and intensity dependence of open circuit voltage and photoluminescence. <i>Solar Energy</i> , <b>2019</b> , 189, 389-397	6.8	8
390	A dithieno[3,2-b:2',3'-d]pyrrole-cored four-arm hole transporting material for over 19% efficiency dopant-free perovskite solar cells. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 9455-9459	7.1	19
389	Dithieno[3,2-b:2',3'-d]pyrrol-Cored Hole Transport Material Enabling Over 21% Efficiency Dopant-Free Perovskite Solar Cells. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1904300	15.6	80
388	Dithieno[3,2-b:2',3'-d]pyrrole Cored p-Type Semiconductors Enabling 20 % Efficiency Dopant-Free Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 13717-13721	16.4	73
387	Dithieno[3,2-b:2',3'-d]pyrrole Cored p-Type Semiconductors Enabling 20 % Efficiency Dopant-Free Perovskite Solar Cells. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 13855-13859	3.6	14
386	Buffer/absorber interface recombination reduction and improvement of back-contact barrier height in CdTe solar cells. <i>Thin Solid Films</i> , <b>2019</b> , 685, 385-392	2.2	11
385	Bimolecular Additives Improve Wide-Band-Gap Perovskites for Efficient Tandem Solar Cells with CIGS. <i>Joule</i> , <b>2019</b> , 3, 1734-1745	27.8	131
384	Influences of buffer material and fabrication atmosphere on the electrical properties of CdTe solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , <b>2019</b> , 27, 1115-1123	6.8	13
383	A new metalorganic open framework enabling facile synthesis of carbon encapsulated transition metal phosphide/sulfide nanoparticle electrocatalysts. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 7168-7178	12	37

382	Atmospherically induced defects in (FASnI3)0.6(MAPbI3)x Cl3x )0.4 perovskites. <i>Journal Physics D: Applied Physics</i> , <b>2019</b> , 52, 175102	3	6
381	Optoelectronic Characterization of Emerging Solar Absorber Cu3AsS4 <b>2019</b> ,		1
380	ZnTe Back Buffer Layer to Enhance the Efficiency of CdS/CdTe Solar Cells <b>2019</b> ,		2
379	Get rid of S-kink in MZO/CdTe Solar Cells by Performing CdCl2 Annealing without Oxygen <b>2019</b> ,		1
378	Monolithic Two-Terminal All-Perovskite Tandem Solar Cells with Power Conversion Efficiency Exceeding 21% <b>2019</b> ,		2
377	Hole-Induced Spontaneous Mutual Annihilation of Dislocation Pairs. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 7421-7425	6.4	
376	Helicity-dependent terahertz photocurrent and phonon dynamics in hybrid metal halide perovskites. <i>Journal of Chemical Physics</i> , <b>2019</b> , 151, 244706	3.9	9
375	Efficient sky-blue perovskite light-emitting diodes via photoluminescence enhancement. <i>Nature Communications</i> , <b>2019</b> , 10, 5633	17.4	164
374	Reducing Saturation-Current Density to Realize High-Efficiency Low-Bandgap Mixed TinLead Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1803135	21.8	162
373	Atomistic Mechanism of Broadband Emission in Metal Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 501-506	6.4	105
372	The Effects of Hydrogen Iodide Back Surface Treatment on CdTe Solar Cells. <i>Solar Rrl</i> , <b>2019</b> , 3, 1800304	7.1	21
371	Unraveling the Impact of Halide Mixing on Perovskite Stability. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 3515-3523	16.4	71
370	Bandgap Engineering of Stable Lead-Free Oxide Double Perovskites for Photovoltaics. <i>Advanced Materials</i> , <b>2018</b> , 30, e1705901	24	38
369	Effective Carrier-Concentration Tuning of SnO Quantum Dot Electron-Selective Layers for High-Performance Planar Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2018</b> , 30, e1706023	24	245
368	Self-Powered All-Inorganic Perovskite Microcrystal Photodetectors with High Detectivity. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 2043-2048	6.4	99
367	Solution-Processed Nb-Substituted BaBiO3 Double Perovskite Thin Films for Photoelectrochemical Water Reduction. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 1017-1031	9.6	35
366	Roles of Pseudo-Closed s Orbitals for Different Intrinsic Hole Generation between Tl-Bi and In-Bi Bromide Double Perovskites. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 258-262	6.4	23
365	Barium Bismuth Niobate Double Perovskite/Tungsten Oxide Nanosheet Photoanode for High-Performance Photoelectrochemical Water Splitting. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1701655	21.8	47

364	A New Hole Transport Material for Efficient Perovskite Solar Cells With Reduced Device Cost. <i>Solar Rrl</i> , <b>2018</b> , 2, 1700175	7.1	28
363	Four-Terminal All-Perovskite Tandem Solar Cells Achieving Power Conversion Efficiencies Exceeding 23%. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 305-306	20.1	169
362	Double Coating for the Enhancement of the Performance in a MA0.7FA0.3PbBr3 Photodetector. <i>ACS Photonics</i> , <b>2018</b> , 5, 2100-2105	6.3	7
361	Enhanced Grain Size and Crystallinity in CH3NH3PbI3 Perovskite Films by Metal Additives to the Single-Step Solution Fabrication Process. <i>MRS Advances</i> , <b>2018</b> , 3, 3237-3242	0.7	20
360	Stability, Electronic and Optical Properties of M4M?X4 (M = Ga or In, M? = Si, Ge, or Sn, X = Chalcogen) Photovoltaic Absorbers. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 10360-10364	3.8	3
359	Stable and efficient CdS/Sb2Se3 solar cells prepared by scalable close space sublimation. <i>Nano Energy</i> , <b>2018</b> , 49, 346-353	17.1	87
358	Controllable Multinary Alloy Electrodeposition for Thin-Film Solar Cell Fabrication: A Case Study of Kesterite CuZnSnS. <i>IScience</i> , <b>2018</b> , 1, 55-71	6.1	16
357	Effect of non-stoichiometric solution chemistry on improving the performance of wide-bandgap perovskite solar cells. <i>Materials Today Energy</i> , <b>2018</b> , 7, 232-238	7	26
356	Pressure-Assisted Annealing Strategy for High-Performance Self-Powered All-Inorganic Perovskite Microcrystal Photodetectors. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 4714-4719	6.4	39
355	Band Tail Engineering in Kesterite CuZnSn(S,Se) Thin-Film Solar Cells with 11.8% Efficiency. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 4555-4561	6.4	35
354	Synergistic effects of thiocyanate additive and cesium cations on improving the performance and initial illumination stability of efficient perovskite solar cells. <i>Sustainable Energy and Fuels</i> , <b>2018</b> , 2, 2435-2441	5.8	22
353	Binary hole transport materials blending to linearly tune HOMO level for high efficiency and stable perovskite solar cells. <i>Nano Energy</i> , <b>2018</b> , 51, 680-687	17.1	41
352	Low Temperature Photoluminescence Spectroscopy of Defect and Interband Transitions in CdSexTe1-x Thin Films. <i>MRS Advances</i> , <b>2018</b> , 3, 3293-3299	0.7	5
351	Probing the origins of photodegradation in organic/inorganic metal halide perovskites with time-resolved mass spectrometry. <i>Sustainable Energy and Fuels</i> , <b>2018</b> , 2, 2460-2467	5.8	56
350	Efficient and Stable Nonfullerene-Graded Heterojunction Inverted Perovskite Solar Cells with Inorganic Ga2O3 Tunneling Protective Nanolayer. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1804128	15.6	58
349	Electronic Properties of ns2 Metal Halide Perovskites for Photovoltaic Applications. <i>Materials and Energy</i> , <b>2018</b> , 59-94		
348	Energy Payback Time (EPBT) and Energy Return on Energy Invested (EROI) of Perovskite Tandem Photovoltaic Solar Cells. <i>IEEE Journal of Photovoltaics</i> , <b>2018</b> , 8, 305-309	3.7	40
347	Room-temperature fabrication of a delafossite CuCrO2 hole transport layer for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 469-477	13	73



346	A Versatile Optical Model Applied to CdTe and CdSe <sub>1-x</sub> S <sub>x</sub> Te <sub>y</sub> Alloys: Sensitivity to Film Composition and Relative Defect Density <b>2018</b> ,			1
345	Electrical Impedance Characterization of CdTe Thin Film Solar Cells with Hydrogen Iodide Back Surface Etching <b>2018</b> ,			1
344	Excess charge-carrier induced instability of hybrid perovskites. <i>Nature Communications</i> , <b>2018</b> , 9, 4981	17.4		95
343	Efficient two-terminal all-perovskite tandem solar cells enabled by high-quality low-bandgap absorber layers. <i>Nature Energy</i> , <b>2018</b> , 3, 1093-1100	62.3		284
342	All-Perovskite Tandem Solar Cell Showing Unprecedentedly High Open-Circuit Voltage. <i>Joule</i> , <b>2018</b> , 2, 2206-2207	27.8		4
341	Efficient and stable emission of warm-white light from lead-free halide double perovskites. <i>Nature</i> , <b>2018</b> , 563, 541-545	50.4		835
340	Photovoltaic Effect in Indium(I) Iodide Thin Films. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 8226-8232	9.6		10
339	Formamidinium + Cesium Lead Triiodide Perovskite Thin Films: Optical Properties and Devices <b>2018</b> ,			1
338	Impact of Epoxy Encapsulation on Device Stability of Large- Area Laser-Patterned Perovskite Solar Cells <b>2018</b> ,			2
337	Manufacturing Cost Analysis of Perovskite Solar Modules in Single-Junction and All-Perovskite Tandem Configurations <b>2018</b> ,			8
336	Optical Hall Effect of PV Device Materials. <i>IEEE Journal of Photovoltaics</i> , <b>2018</b> , 8, 1793-1799	3.7		5
335	Self-powered CsPbBr <sub>3</sub> nanowire photodetector with a vertical structure. <i>Nano Energy</i> , <b>2018</b> , 53, 880-886	7.1		66
334	Formamidinium + cesium lead triiodide perovskites: Discrepancies between thin film optical absorption and solar cell efficiency. <i>Solar Energy Materials and Solar Cells</i> , <b>2018</b> , 188, 228-233	6.4		15
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330	Phase Stability and Electronic Structure of Prospective Sb-Based Mixed Sulfide and Iodide 3D Perovskite (CH <sub>3</sub> NH <sub>3</sub> )SbSI. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 3829-3833	6.4		14
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285	Close-Space Sublimated CdTe Solar Cells with Co-Sputtered Cd <sub>x</sub> Se <sub>1-x</sub> Alloy Window Layers <b>2017</b> ,		2
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214	Study of close space sublimation (CSS) Grown SnS thin-films for solar cell applications <b>2015</b> ,		2
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201	Co-electroplated Cu <sub>2</sub> ZnSnS <sub>4</sub> thin-film solar cells: The role of precursor metallic composition <b>2014</b> ,		3
200	Characteristics of in-substituted CZTS thin film and bifacial solar cell. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 21118-30	9.5	69
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198	Anomalous Alloy Properties in Mixed Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , <b>2014</b> , 5, 3625-31	6.4	188
197	Stability, transparency, and conductivity of Mg <sub>x</sub> Zn <sub>1-x</sub> O and Cd <sub>x</sub> Zn <sub>1-x</sub> O: Designing optimum transparency conductive oxides. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 023707	2.5	9
196	Close-space sublimation grown CdS window layers for CdS/CdTe thin-film solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2014</b> , 25, 1991-1998	2.1	24
195	Direct Imaging of Cl- and Cu-Induced Short-Circuit Efficiency Changes in CdTe Solar Cells. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1400454	21.8	58
194	Column-by-Column Imaging of Dislocation Slip Processes in CdTe. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1054-1055	0.5	1
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192	Defect Physics in Photovoltaic Materials Revealed by Combined High-Resolution Microscopy and Density-Functional Theory Calculation. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 514-515	0.5	1
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190	Effect of deposition temperature on reactively sputtered CdS:O <b>2014</b> ,		3
189	Creating intermediate bands in ZnTe via co-alloying approach. <i>Applied Physics Express</i> , <b>2014</b> , 7, 121201	2.4	7
188	Interfaces of Zinc Phosphide Magnesium Schottky Diodes. <i>IEEE Journal of Photovoltaics</i> , <b>2014</b> , 4, 1680-1682	1.9	1
187	Sn Interdiffusion within Grains and Grain Boundaries in CdTe Solar Cells. <i>IEEE Journal of Photovoltaics</i> , <b>2014</b> , 4, 1636-1643	3.7	23
186	Cathodoluminescence Analysis of Grain Boundaries and Grain Interiors in Thin-Film CdTe. <i>IEEE Journal of Photovoltaics</i> , <b>2014</b> , 4, 1671-1679	3.7	19
185	Photoluminescence spectroscopy of Cadmium Telluride deep defects <b>2014</b> ,		3

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182	Determination of polarization-fields across polytype interfaces in InAs nanopillars. <i>Advanced Materials</i> , <b>2014</b> , 26, 1052-7	24		26
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180	<b>2014,</b>			3
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174	Carrier separation at dislocation pairs in CdTe. <i>Physical Review Letters</i> , <b>2013</b> , 111, 096403	7-4		37
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