

Sonia Ruiz-Raga

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.

47
papers

4,012
citations

29
h-index

50
g-index

50
ext. papers

4,526
ext. citations

11.6
avg, IF

5.75
L-index

#	Paper	IF	Citations
47	Balancing Charge Extraction for Efficient Back-Contact Perovskite Solar Cells by Using an Embedded Mesoscopic Architecture. <i>Advanced Energy Materials</i> , 2021 , 11, 2100053	21.8	6
46	The impact of spiro-OMeTAD photodoping on the reversible light-induced transients of perovskite solar cells. <i>Nano Energy</i> , 2021 , 82, 105658	17.1	13
45	Light intensity modulated photoluminescence for rapid series resistance mapping of perovskite solar cells. <i>Nano Energy</i> , 2020 , 73, 104755	17.1	3
44	High-Throughput Characterization of Perovskite Solar Cells for Rapid Combinatorial Screening. <i>Solar Rrl</i> , 2020 , 4, 2000097	7.1	8
43	Unique Layer-Doping-Induced Regulation of Charge Behavior in Metal-Free Carbon Nitride Photoanodes for Enhanced Performance. <i>ChemSusChem</i> , 2020 , 13, 328-333	8.3	10
42	The Performance-Determining Role of Lewis Bases in Dye-Sensitized Solar Cells Employing Copper-Bisphenanthroline Redox Mediators. <i>Advanced Energy Materials</i> , 2020 , 10, 2002067	21.8	10
41	Honeycomb-shaped charge collecting electrodes for dipole-assisted back-contact perovskite solar cells. <i>Nano Energy</i> , 2020 , 67, 104223	17.1	11
40	Fatigue stability of CH ₃ NH ₃ PbI ₃ based perovskite solar cells in day/night cycling. <i>Nano Energy</i> , 2019 , 58, 687-694	17.1	33
39	Significant THz absorption in CHNH molecular defect-incorporated organic-inorganic hybrid perovskite thin film. <i>Scientific Reports</i> , 2019 , 9, 5811	4.9	12
38	LiTFSI-Free Spiro-OMeTAD-Based Perovskite Solar Cells with Power Conversion Efficiencies Exceeding 19%. <i>Advanced Energy Materials</i> , 2019 , 9, 1901519	21.8	46
37	Multiple Roles of Cobalt Pyrazol-Pyridine Complexes in High-Performing Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 4675-4682	6.4	12
36	Ultrasonic spray deposition of TiO ₂ electron transport layers for reproducible and high efficiency hybrid perovskite solar cells. <i>Solar Energy</i> , 2019 , 188, 697-705	6.8	7
35	Engineering Interface Structure to Improve Efficiency and Stability of Organometal Halide Perovskite Solar Cells. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 511-520	3.4	48
34	Working Principles of Perovskite Solar Cells 2018 , 81-99		1
33	Effect of Grain Cluster Size on Back-Contact Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2018 , 28, 1805098	15.6	28
32	Gas-solid reaction based over one-micrometer thick stable perovskite films for efficient solar cells and modules. <i>Nature Communications</i> , 2018 , 9, 3880	17.4	82
31	Transition metal speciation as a degradation mechanism with the formation of a solid-electrolyte interphase (SEI) in Ni-rich transition metal oxide cathodes. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 14449-14463	13.3	23

30	Improved Efficiency and Stability of Perovskite Solar Cells Induced by C=O Functionalized Hydrophobic Ammonium-Based Additives. <i>Advanced Materials</i> , 2018 , 30, 1703670	24	100
29	Transferrable optimization of spray-coated PbI ₂ films for perovskite solar cell fabrication. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 5709-5718	13	45
28	Application of Methylamine Gas in Fabricating Organic-Inorganic Hybrid Perovskite Solar Cells. <i>Energy Technology</i> , 2017 , 5, 1750-1761	3.5	38
27	Interfacial Modification of Perovskite Solar Cells Using an Ultrathin MAI Layer Leads to Enhanced Energy Level Alignment, Efficiencies, and Reproducibility. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 3947-3953	6.4	76
26	Transamidation of dimethylformamide during alkylammonium lead triiodide film formation for perovskite solar cells. <i>Journal of Materials Research</i> , 2017 , 32, 45-55	2.5	31
25	Thermal degradation of CH ₃ NH ₃ PbI ₃ perovskite into NH ₃ and CH ₃ I gases observed by coupled thermogravimetry-mass spectrometry analysis. <i>Energy and Environmental Science</i> , 2016 , 9, 3406-3410	35.4	468
24	Rapid perovskite formation by CH ₃ NH ₂ gas-induced intercalation and reaction of PbI ₂ . <i>Journal of Materials Chemistry A</i> , 2016 , 4, 2494-2500	13	98
23	Properties and solar cell applications of Pb-free perovskite films formed by vapor deposition. <i>RSC Advances</i> , 2016 , 6, 2819-2825	3.7	93
22	The Effect of Impurities on the Impedance Spectroscopy Response of CH ₃ NH ₃ PbI ₃ Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 28519-28526	3.8	27
21	The presence of CH ₃ NH ₂ neutral species in organometal halide perovskite films. <i>Applied Physics Letters</i> , 2016 , 108, 073901	3.4	40
20	Post-annealing of MAPbI ₃ perovskite films with methylamine for efficient perovskite solar cells. <i>Materials Horizons</i> , 2016 , 3, 548-555	14.4	109
19	Large formamidinium lead trihalide perovskite solar cells using chemical vapor deposition with high reproducibility and tunable chlorine concentrations. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 16097-16103	13	139
18	Temperature-dependent hysteresis effects in perovskite-based solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 9074-9080	13	105
17	Perovskite Solar Cells: Silver Iodide Formation in Methyl Ammonium Lead Iodide Perovskite Solar Cells with Silver Top Electrodes (Adv. Mater. Interfaces 13/2015). <i>Advanced Materials Interfaces</i> , 2015 , 2,	4.6	6
16	Silver Iodide Formation in Methyl Ammonium Lead Iodide Perovskite Solar Cells with Silver Top Electrodes. <i>Advanced Materials Interfaces</i> , 2015 , 2, 1500195	4.6	500
15	Pinhole-free hole transport layers significantly improve the stability of MAPbI ₃ -based perovskite solar cells under operating conditions. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 15451-15456	13	101
14	Substantial improvement of perovskite solar cells stability by pinhole-free hole transport layer with doping engineering. <i>Scientific Reports</i> , 2015 , 5, 9863	4.9	101
13	Smooth perovskite thin films and efficient perovskite solar cells prepared by the hybrid deposition method. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 14631-14641	13	108

12	Air-Exposure Induced Dopant Redistribution and Energy Level Shifts in Spin-Coated Spiro-MeOTAD Films. <i>Chemistry of Materials</i> , 2015 , 27, 562-569	9.6	289
11	Influence of Air Annealing on High Efficiency Planar Structure Perovskite Solar Cells. <i>Chemistry of Materials</i> , 2015 , 27, 1597-1603	9.6	212
10	High performance perovskite solar cells by hybrid chemical vapor deposition. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 18742-18745	13	233
9	Fabrication of semi-transparent perovskite films with centimeter-scale superior uniformity by the hybrid deposition method. <i>Energy and Environmental Science</i> , 2014 , 7, 3989-3993	35.4	193
8	Temperature effects in dye-sensitized solar cells. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 2328-36	3.6	91
7	Molecular Electronic Coupling Controls Charge Recombination Kinetics in Organic Solar Cells of Low Bandgap Diketopyrrolopyrrole, Carbazole, and Thiophene Polymers. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 8719-8726	3.8	11
6	Design and characterization of alkoxy-wrapped push-pull porphyrins for dye-sensitized solar cells. <i>Chemical Communications</i> , 2012 , 48, 4368-70	5.8	104
5	Analysis of the Origin of Open Circuit Voltage in Dye Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2012 , 3, 1629-34	6.4	176
4	Enhanced diffusion through porous nanoparticle optical multilayers. <i>Journal of Materials Chemistry</i> , 2012 , 22, 1751-1757		22
3	How the charge-neutrality level of interface states controls energy level alignment in cathode contacts of organic bulk-heterojunction solar cells. <i>ACS Nano</i> , 2012 , 6, 3453-60	16.7	104
2	SiO ₂ Aerogel Templated, Porous TiO ₂ Photoanodes for Enhanced Performance in Dye-Sensitized Solar Cells Containing a Ni(III)/(IV) Bis(dicarbollide) Shuttle. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 11257-11264	3.8	36
1	Can Laminated Carbon Challenge Gold? Toward Universal, Scalable, and Low-Cost Carbon Electrodes for Perovskite Solar Cells. <i>Advanced Materials Technologies</i> , 2101148	6.8	4