Sonia Ruiz-Raga

List of Publications by Year
in descending order

47	5,064	31	48
papers	citations	h-index	g-index
		147801	206112

50	50	50	6917
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Silver Iodide Formation in Methyl Ammonium Lead Iodide Perovskite Solar Cells with Silver Top Electrodes. Advanced Materials Interfaces, 2015, 2, 1500195.	3.7	646
2	Thermal degradation of CH₃NH₃PbI₃ perovskite into NH₃ and CH₃I gases observed by coupled thermogravimetryâ€“mass spectrometry analysis. Energy and Environmental Science, 2016, 9, 3406-3410.	30.8	616
3	Air-Exposure Induced Dopant Redistribution and Energy Level Shifts in Spin-Coated Spiro-MeOTAD Films. Chemistry of Materials, 2015, 27, 562-569.	6.7	357
4	High performance perovskite solar cells by hybrid chemical vapor deposition. Journal of Materials Chemistry A, 2014, 2, 18742-18745.	10.3	284
5	Influence of Air Annealing on High Efficiency Planar Structure Perovskite Solar Cells. Chemistry of Materials, 2015, 27, 1597-1603.	6.7	247
6	Fabrication of semi-transparent perovskite films with centimeter-scale superior uniformity by the hybrid deposition method. Energy and Environmental Science, 2014, 7, 3989-3993.	30.8	213
7	Analysis of the Origin of Open Circuit Voltage in Dye Solar Cells. Journal of Physical Chemistry Letters, 2012, 3, 1629-1634.	4.6	208
8	Large formamidinium lead trihalide perovskite solar cells using chemical vapor deposition with high reproducibility and tunable chlorine concentrations. Journal of Materials Chemistry A, 2015, 3, 16097-16103.	10.3	165
9	Post-annealing of MAPbI₃ perovskite films with methylamine for efficient perovskite solar cells. Materials Horizons, 2016, 3, 548-555.	12.2	141
10	Improved Efficiency and Stability of Perovskite Solar Cells Induced by Cï£¾O Functionalized Hydrophobic Ammoniumâ€Based Additives. Advanced Materials, 2018, 30, 1703670.	21.0	132
11	Properties and solar cell applications of Pb-free perovskite films formed by vapor deposition. RSC Advances, 2016, 6, 2819-2825.	3.6	131
12	Smooth perovskite thin films and efficient perovskite solar cells prepared by the hybrid deposition method. Journal of Materials Chemistry A, 2015, 3, 14631-14641.	10.3	126
13	Pinhole-free hole transport layers significantly improve the stability of MAPbI₃-based perovskite solar cells under operating conditions. Journal of Materials Chemistry A, 2015, 3, 15451-15456.	10.3	122
14	Temperature-dependent hysteresis effects in perovskite-based solar cells. Journal of Materials Chemistry A, 2015, 3, 9074-9080.	10.3	121
15	Substantial improvement of perovskite solar cells stability by pinhole-free hole transport layer with doping engineering. Scientific Reports, 2015, 5, 9863.	3.3	119
16	Rapid perovskite formation by CH₃NH₂ gas-induced intercalation and reaction of PbI₂. Journal of Materials Chemistry A, 2016, 4, 2494-2500.	10.3	115
17	How the Charge-Neutrality Level of Interface States Controls Energy Level Alignment in Cathode Contacts of Organic Bulk-Heterojunction Solar Cells. ACS Nano, 2012, 6, 3453-3460.	14.6	113
18	Temperature effects in dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2013, 15, 2328.	2.8	111

#	Article	IF	Citations
19	Gas-solid reaction based over one-micrometer thick stable perovskite films for efficient solar cells and modules. Nature Communications, 2018, 9, 3880.	12.8	109
20	Design and characterization of alkoxy-wrapped pushâ€“pull porphyrins for dye-sensitized solar cells. Chemical Communications, 2012, 48, 4368.	4.1	108
21	Interfacial Modification of Perovskite Solar Cells Using an Ultrathin MAI Layer Leads to Enhanced Energy Level Alignment, Efficiencies, and Reproducibility. Journal of Physical Chemistry Letters, 2017, 8, 3947-3953.	4.6	101
22	LiTFSIâ€Free Spiroâ€OMeTADâ€Based Perovskite Solar Cells with Power Conversion Efficiencies Exceeding 19%. Advanced Energy Materials, 2019, 9, 1901519.	19.5	85
23	Engineering Interface Structure to Improve Efficiency and Stability of Organometal Halide Perovskite Solar Cells. Journal of Physical Chemistry B, 2018, 122, 511-520.	2.6	68
24	Transferrable optimization of spray-coated PbI₂ films for perovskite solar cell fabrication. Journal of Materials Chemistry A, 2017, 5, 5709-5718.	10.3	54
25	The presence of CH3NH2 neutral species in organometal halide perovskite films. Applied Physics Letters, 2016, 108, .	3.3	50
26	Application of Methylamine Gas in Fabricating Organicâ€“Inorganic Hybrid Perovskite Solar Cells. Energy Technology, 2017, 5, 1750-1761.	3.8	46
27	Fatigue stability of CH3NH3PbI3 based perovskite solar cells in day/night cycling. Nano Energy, 2019, 58, 687-694.	16.0	46
28	SiO2 Aerogel Templated, Porous TiO2 Photoanodes for Enhanced Performance in Dye-Sensitized Solar Cells Containing a Ni(III)/(IV) Bis(dicarbollide) Shuttle. Journal of Physical Chemistry C, 2011, 115, 11257-11264.	3.1	38
29	Transamidation of dimethylformamide during alkylammonium lead triiodide film formation for perovskite solar cells. Journal of Materials Research, 2017, 32, 45-55.	2.6	37
30	Transition metal speciation as a degradation mechanism with the formation of a solid-electrolyte interphase (SEI) in Ni-rich transition metal oxide cathodes. Journal of Materials Chemistry A, 2018, 6, 14449-14463.	10.3	37
31	The Effect of Impurities on the Impedance Spectroscopy Response of CH₃NH₃PbI₃ Perovskite Solar Cells. Journal of Physical Chemistry C, 2016, 120, 28519-28526.	3.1	35
32	Effect of Grain Cluster Size on Backâ€Contact Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1805098.	14.9	32
33	The impact of spiro-OMeTAD photodoping on the reversible light-induced transients of perovskite solar cells. Nano Energy, 2021, 82, 105658.	16.0	28
34	Significant THz absorption in CH3NH2 molecular defect-incorporated organic-inorganic hybrid perovskite thin film. Scientific Reports, 2019, 9, 5811.	3.3	26
35	Enhanced diffusion through porous nanoparticle optical multilayers. Journal of Materials Chemistry, 2012, 22, 1751-1757.	6.7	22
36	The Performanceâ€Determining Role of Lewis Bases in Dyeâ€Sensitized Solar Cells Employing Copperâ€Bisphenanthroline Redox Mediators. Advanced Energy Materials, 2020, 10, 2002067.	19.5	22

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37	Balancing Charge Extraction for Efficient Backâ€Contact Perovskite Solar Cells by Using an Embedded Mesoscopic Architecture. Advanced Energy Materials, 2021, 11, 2100053.	19.5	19
38	Highâ€Throughput Characterization of Perovskite Solar Cells for Rapid Combinatorial Screening. Solar Rrl, 2020, 4, 2000097.	5.8	18
39	Honeycomb-shaped charge collecting electrodes for dipole-assisted back-contact perovskite solar cells. Nano Energy, 2020, 67, 104223.	16.0	17
40	Solution Processable Direct Bandgap Copperâ€Silverâ€Bismuth Iodide Photovoltaics: Compositional Control of Dimensionality and Optoelectronic Properties. Advanced Energy Materials, 2022, 12, .	19.5	17
41	Unique Layerâ€Dopingâ€Induced Regulation of Charge Behavior in Metalâ€Free Carbon Nitride Photoanodes for Enhanced Performance. ChemSusChem, 2020, 13, 328-333.	6.8	16
42	Can Laminated Carbon Challenge Gold? Toward Universal, Scalable, and Lowâ€Cost Carbon Electrodes for Perovskite Solar Cells. Advanced Materials Technologies, 2022, 7, 2101148.	5.8	14
43	Molecular Electronic Coupling Controls Charge Recombination Kinetics in Organic Solar Cells of Low Bandgap Diketopyrrolopyrrole, Carbazole, and Thiophene Polymers. Journal of Physical Chemistry C, 2013, 117, 8719-8726.	3.1	13
44	Multiple Roles of Cobalt Pyrazol-Pyridine Complexes in High-Performing Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 4675-4682.	4.6	13
45	Ultrasonic spray deposition of TiO2 electron transport layers for reproducible and high efficiency hybrid perovskite solar cells. Solar Energy, 2019, 188, 697-705.	6.1	11
46	Perovskite Solar Cells: Silver Iodide Formation in Methyl Ammonium Lead Iodide Perovskite Solar Cells with Silver Top Electrodes (Adv. Mater. Interfaces 13/2015). Advanced Materials Interfaces, 2015, 2, .	3.7	7
47	Light intensity modulated photoluminescence for rapid series resistance mapping of perovskite solar cells. Nano Energy, 2020, 73, 104755.	16.0	6