Cristina RoldÃ¡n-Carmona

List of Publications by Year
in descending order

65	7,146	94415 37	118840 62
papers	citations	h-index	g-index
68	68	68	9329
all docs	docs citations	times ranked	citing authors

#	ARTICLE	IF	CITATIONS
1	One-Year stable perovskite solar cells by 2D/3D interface engineering. Nature Communications, 2017, 8, 15684.	12.8	1,625
2	Migration of cations induces reversible performance losses over day/night cycling in perovskite solar cells. Energy and Environmental Science, 2017, 10, 604-613.	30.8	525
3	Large guanidinium cation mixed with methylammonium in lead iodide perovskites for 19% efficient solar cells. Nature Energy, 2017, 2, 972-979.	39.5	445
4	Highly efficient perovskite solar cells with a compositionally engineered perovskite/hole transporting material interface. Energy and Environmental Science, 2017, 10, 621-627.	30.8	436
5	Flexible high efficiency perovskite solar cells. Energy and Environmental Science, 2014, 7, 994.	30.8	409
6	High efficiency methylammonium lead triiodide perovskite solar cells: the relevance of non-stoichiometric precursors. Energy and Environmental Science, 2015, 8, 3550-3556.	30.8	384
7	High efficiency single-junction semitransparent perovskite solar cells. Energy and Environmental Science, 2014, 7, 2968-2973.	30.8	266
8	Light-emitting electrochemical cells: recent progress and future prospects. Materials Today, 2014, 17, 217-223.	14.2	239
9	Benzotrithiopheneâ€Based Holeâ€Transporting Materials for 18.2â€‰% Perovskite Solar Cells. Angewandte Chemie - International Edition, 2016, 55, 6270-6274.	13.8	188
10	Influence of Charge Transport Layers on Open-Circuit Voltage and Hysteresis in Perovskite Solar Cells. Joule, 2018, 2, 788-798.	24.0	187
11	Metalâ€Oxideâ€Free Methylammonium Lead Iodide Perovskiteâ€Based Solar Cells: the Influence of Organic Charge Transport Layers. Advanced Energy Materials, 2014, 4, 1400345.	19.5	164
12	Efficient methylammonium lead iodide perovskite solar cells with active layers from 300 to 900 nm. APL Materials, 2014, 2, .	5.1	118
13	Applications of Selfâ€Assembled Monolayers for Perovskite Solar Cells Interface Engineering to Address Efficiency and Stability. Advanced Energy Materials, 2020, 10, 2002989.	19.5	117
14	Copper Thiocyanate Inorganic Hole-Transporting Material for High-Efficiency Perovskite Solar Cells. ACS Energy Letters, 2016, 1, 1112-1117.	17.4	115
15	Band-bending induced passivation: high performance and stable perovskite solar cells using a perhydropoly(silazane) precursor. Energy and Environmental Science, 2020, 13, 1222-1230.	30.8	114
16	Efficient photovoltaic and electroluminescent perovskite devices. Chemical Communications, 2015, 51, 569-571.	4.1	110
17	Molecularly Engineered Phthalocyanines as Holeâ€Transporting Materials in Perovskite Solar Cells Reaching Power Conversion Efficiency of 17.5%. Advanced Energy Materials, 2017, 7, 1601733.	19.5	90
18	An Efficient Approach to Fabricate Airâ€Stable Perovskite Solar Cells via Addition of a Selfâ€Polymerizing Ionic Liquid. Advanced Materials, 2020, 32, e2003801.	21.0	84

#	Article	IF	Citations
19	Universal approach toward high-efficiency two-dimensional perovskite solar cells <i>via</i> a vertical-rotation process. Energy and Environmental Science, 2020, 13, 3093-3101.	30.8	82
20	Tuning the Emission of Cationic Iridium (III) Complexes Towards the Red Through Methoxy Substitution of the Cyclometalating Ligand. Scientific Reports, 2015, 5, 12325.	3.3	81
21	Surface passivation of perovskite layers using heterocyclic halides: Improved photovoltaic properties and intrinsic stability. Nano Energy, 2018, 50, 220-228.	16.0	79
22	Retarding Thermal Degradation in Hybrid Perovskites by Ionic Liquid Additives. Advanced Functional Materials, 2019, 29, 1902021.	14.9	76
23	Iridium(III) Complexes with Phenyl-tetrazoles as Cyclometalating Ligands. Inorganic Chemistry, 2014, 53, 7709-7721.	4.0	72
24	Pulsed-current versus constant-voltage light-emitting electrochemical cells with trifluoromethyl-substituted cationic iridium(iii) complexes. Journal of Materials Chemistry C, 2013, 1, 2241.	5.5	63
25	Fluorine-free blue-green emitters for light-emitting electrochemical cells. Journal of Materials Chemistry C, 2014, 2, 5793-5804.	5.5	60
26	Enhanced TiO₂/MAPbI₃ Electronic Coupling by Interface Modification with PbI₂. Chemistry of Materials, 2016, 28, 3612-3615.	6.7	60
27	Benzotrithiopheneâ€Based Holeâ€Transporting Materials for 18.2â€‰% Perovskite Solar Cells. Angewandte Chemie, 2016, 128, 6378-6382.	2.0	54
28	Metalâ€Halide Perovskites for Gate Dielectrics in Fieldâ€Effect Transistors and Photodetectors Enabled by PMMA Liftâ€Off Process. Advanced Materials, 2018, 30, e1707412.	21.0	51
29	Copper sulfide nanoparticles as hole-transporting-material in a fully-inorganic blocking layers n-i-p perovskite solar cells: Application and working insights. Applied Surface Science, 2019, 478, 607-614.	6.1	48
30	Lowâ€Cost TiS₂ as Holeâ€Transport Material for Perovskite Solar Cells. Small Methods, 2017, 1, 1700250.	8.6	47
31	Crystal Orientation Drives the Interface Physics at Two/Three-Dimensional Hybrid Perovskites. Journal of Physical Chemistry Letters, 2019, 10, 5713-5720.	4.6	47
32	Air-Stable nâ€“iâ€“p Planar Perovskite Solar Cells Using Nickel Oxide Nanocrystals as Sole Hole-Transporting Material. ACS Applied Energy Materials, 2019, 2, 4890-4899.	5.1	46
33	Dynamically Doped White Light Emitting Tandem Devices. Advanced Materials, 2014, 26, 770-774.	21.0	43
34	Molecular Design and Operational Stability: Toward Stable 3D/2D Perovskite Interlayers. Advanced Science, 2020, 7, 2001014.	11.2	43
35	Red emitting [Ir(C^N)₂(N^N)]⁺ complexes employing bidentate 2,2â€²:6â€²,2â€²â€²-terpyridine ligands for light-emitting electrochemical cells. Dalton Transactions, 2014, 43, 4653-4667.	3.3	40
36	Revisiting the Brewster Angle Microscopy: The relevance of the polar headgroup. Advances in Colloid and Interface Science, 2012, 173, 12-22.	14.7	39

#	Article	IF	Citations
37	A comparative study of Ir(<scp>iii</scp>) complexes with pyrazino[2,3-<i>f</i>][1,10]phenanthroline and pyrazino[2,3-<i>f</i>][4,7]phenanthroline ligands in light-emitting electrochemical cells (LECs). Dalton Transactions, 2015, 44, 14771-14781.	3.3	39
38	Doped but Stable: Spirobisacridine Hole Transporting Materials for Hysteresis-Free and Stable Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 1792-1800.	13.7	39
39	Inexpensive Holeâ€Transporting Materials Derived from TrÃ¶ger's Base Afford Efficient and Stable Perovskite Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 11266-11272.	13.8	37
40	Ruthenium phenanthroimidazole complexes for near infrared light-emitting electrochemical cells. Journal of Materials Chemistry C, 2016, 4, 9674-9679.	5.5	34
41	Dâ€“Ï€â€“Aâ€Type Triazatruxeneâ€Based Dopantâ€Free Hole Transporting Materials for Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000173.	5.8	33
42	Benzothiadiazole Aryl-amine Based Materials as Efficient Hole Carriers in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 32712-32718.	8.0	31
43	Low-voltage, high-brightness and deep-red light-emitting electrochemical cells (LECs) based on new ruthenium(<scp>ii</scp>) phenanthroimidazole complexes. Dalton Transactions, 2016, 45, 7195-7199.	3.3	29
44	Minimization of Carrier Losses for Efficient Perovskite Solar Cells through Structural Modification of Triphenylamine Derivatives. Angewandte Chemie - International Edition, 2020, 59, 5303-5307.	13.8	29
45	High-energy, efficient and transparent electrode for lithium batteries. Journal of Materials Chemistry, 2010, 20, 2847.	6.7	23
46	Molecular organization and effective energy transfer in iridium metallosurfactantâ€“porphyrin assemblies embedded in Langmuirâ€“Schaefer films. Physical Chemistry Chemical Physics, 2011, 13, 2834-2841.	2.8	22
47	Engineering Charge Injection Interfaces in Hybrid Light-Emitting Electrochemical Cells. ACS Applied Materials & Interfaces, 2014, 6, 19520-19524.	8.0	21
48	Interfacial passivation of wide-bandgap perovskite solar cells and tandem solar cells. Journal of Materials Chemistry A, 2021, 9, 21939-21947.	10.3	19
49	Introduction of a Bifunctional Cation Affords Perovskite Solar Cells Stable at Temperatures Exceeding 80 Â°C. ACS Energy Letters, 2019, 4, 2989-2994.	17.4	18
50	Control of the Lateral Organization in Langmuir Monolayers via Molecular Aggregation of Dyes. Journal of Physical Chemistry C, 2010, 114, 16685-16695.	3.1	17
51	Picosecond Capture of Photoexcited Electrons Improves Photovoltaic Conversion in MAPbI₃:C₇₀â€Doped Planar and Mesoporous Solar Cells. Advanced Materials, 2018, 30, e1801496.	21.0	17
52	Azatruxeneâ€Based, Dumbbellâ€Shaped, Donorâ€“Ï€â€Bridgeâ€“Donor Holeâ€Transporting Materials for Perovskite Solar Cells. Chemistry - A European Journal, 2020, 26, 11039-11047.	3.3	15
53	Gradient band structure: high performance perovskite solar cells using poly(bisphenol A) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	10.3	14
54	Co-evaporation as an optimal technique towards compact methylammonium bismuth iodide layers. Scientific Reports, 2020, 10, 10640.	3.3	11

#	Article	IF	Citations
55	Minimization of Carrier Losses for Efficient Perovskite Solar Cells through Structural Modification of Triphenylamine Derivatives. Angewandte Chemie, 2020, 132, 5341-5345.	2.0	10
56	UV-Vis reflection spectroscopy under variable angle incidence at the airâ€"liquid interface. Physical Chemistry Chemical Physics, 2014, 16, 4012.	2.8	9
57	Crystallographically Oriented Hybrid Perovskites via Thermal Vacuum Codeposition. Solar Rrl, 2021, 5, 2100191.	5.8	8
58	Cation optimization for <i>burn-in loss-free</i> perovskite solar devices. Journal of Materials Chemistry A, 2021, 9, 5374-5380.	10.3	6
59	C₆₀ Thin Films in Perovskite Solar Cells: Efficient or Limiting Charge Transport Layer?. ACS Applied Energy Materials, 2022, 5, 1646-1655.	5.1	6
60	Inexpensive Holeâ€Transporting Materials Derived from TrÃ¶ger's Base Afford Efficient and Stable Perovskite Solar Cells. Angewandte Chemie, 2019, 131, 11388.	2.0	5
61	Application of a Tetraâ€TPDâ€Type Holeâ€Transporting Material Fused by a TrÃ¶ger's Base Core in Perovskite SolarÂCells. Solar Rrl, 2019, 3, 1900224.	5.8	4
62	Mechanistic Insights into the Role of the Bis(trifluoromethanesulfonyl)imide Ion in Coevaporated pâ€"iâ€"n Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, , .	8.0	2
63	CuI and CuSCN as Hole Transport Materials for Perovskite Solar Cells. , 2018, , .		0
64	Identifying Key Parameters to Control Perovskite Crystallization in Co-Evaporation. , 0, , .		0
65	A low-cost thin-film photovoltaic device with high energy efficiency. SPIE Newsroom, 0, , .	0.1	0