Cristina Roldn-Carmona

List of Publications by Citations

60 papers	5,562 citations	32 h-index	68 g-index
68 ext. papers	6,381 ext. citations	15 avg, IF	5.73 L-index

#	Paper	IF	Citations
60	One-Year stable perovskite solar cells by 2D/3D interface engineering. *Nature Communications*, **2017**, 8, 15684	17.4	1253
59	Migration of cations induces reversible performance losses over day/night cycling in perovskite solar cells. *Energy and Environmental Science*, **2017**, 10, 604-613	35.4	387
58	Flexible high efficiency perovskite solar cells. *Energy and Environmental Science*, **2014**, 7, 994	35.4	357
57	Highly efficient perovskite solar cells with a compositionally engineered perovskite/hole transporting material interface. *Energy and Environmental Science*, **2017**, 10, 621-627	35.4	350
56	Large guanidinium cation mixed with methylammonium in lead iodide perovskites for 19% efficient solar cells. *Nature Energy*, **2017**, 2, 972-979	62.3	339
55	High efficiency methylammonium lead triiodide perovskite solar cells: the relevance of non-stoichiometric precursors. *Energy and Environmental Science*, **2015**, 8, 3550-3556	35.4	335
54	High efficiency single-junction semitransparent perovskite solar cells. *Energy and Environmental Science*, **2014**, 7, 2968-2973	35.4	237
53	Light-emitting electrochemical cells: recent progress and future prospects. *Materials Today*, **2014**, 17, 217-223	21.8	211
52	Benzotrithiophene-Based Hole-Transporting Materials for 18.2 % Perovskite Solar Cells. *Angewandte Chemie - International Edition*, **2016**, 55, 6270-4	16.4	165
51	Metal-Oxide-Free Methylammonium Lead Iodide Perovskite-Based Solar Cells: the Influence of Organic Charge Transport Layers. *Advanced Energy Materials*, **2014**, 4, 1400345	21.8	148
50	Influence of Charge Transport Layers on Open-Circuit Voltage and Hysteresis in Perovskite Solar Cells. *Joule*, **2018**, 2, 788-798	27.8	147
49	Efficient photovoltaic and electroluminescent perovskite devices. *Chemical Communications*, **2015**, 51, 569-71	5.8	103
48	Copper Thiocyanate Inorganic Hole-Transporting Material for High-Efficiency Perovskite Solar Cells. *ACS Energy Letters*, **2016**, 1, 1112-1117	20.1	98
47	Efficient methylammonium lead iodide perovskite solar cells with active layers from 300 to 900 nm. *APL Materials*, **2014**, 2, 081504	5.7	91
46	Molecularly Engineered Phthalocyanines as Hole-Transporting Materials in Perovskite Solar Cells Reaching Power Conversion Efficiency of 17.5%. *Advanced Energy Materials*, **2017**, 7, 1601733	21.8	79
45	Band-bending induced passivation: high performance and stable perovskite solar cells using a perhydropoly(silazane) precursor. *Energy and Environmental Science*, **2020**, 13, 1222-1230	35.4	72
44	Tuning the Emission of Cationic Iridium (III) Complexes Towards the Red Through Methoxy Substitution of the Cyclometalating Ligand. *Scientific Reports*, **2015**, 5, 12325	4.9	62

43	Pulsed-current versus constant-voltage light-emitting electrochemical cells with trifluoromethyl-substituted cationic iridium(III) complexes. *Journal of Materials Chemistry C*, **2013**, 1, 2241	7.1	58
42	Iridium(III) complexes with phenyl-tetrazoles as cyclometalating ligands. *Inorganic Chemistry*, **2014**, 53, 7709-21	5.1	57
41	Surface passivation of perovskite layers using heterocyclic halides: Improved photovoltaic properties and intrinsic stability. *Nano Energy*, **2018**, 50, 220-228	17.1	57
40	Retarding Thermal Degradation in Hybrid Perovskites by Ionic Liquid Additives. *Advanced Functional Materials*, **2019**, 29, 1902021	15.6	56
39	Enhanced TiO2/MAPbI3 Electronic Coupling by Interface Modification with PbI2. *Chemistry of Materials*, **2016**, 28, 3612-3615	9.6	54
38	Fluorine-free blue-green emitters for light-emitting electrochemical cells. *Journal of Materials Chemistry C*, **2014**, 2, 5793-5804	7.1	52
37	Universal approach toward high-efficiency two-dimensional perovskite solar cells via a vertical-rotation process. *Energy and Environmental Science*, **2020**, 13, 3093-3101	35.4	46
36	Benzotrithiophene-Based Hole-Transporting Materials for 18.2 % Perovskite Solar Cells. *Angewandte Chemie*, **2016**, 128, 6378-6382	3.6	44
35	Dynamically doped white light emitting tandem devices. *Advanced Materials*, **2014**, 26, 770-4	24	38
34	Red emitting [Ir(C^N)2(N^N)]+ complexes employing bidentate 2,2′:6′,2′′-terpyridine ligands for light-emitting electrochemical cells. *Dalton Transactions*, **2014**, 43, 4653-67	4.3	37
33	An Efficient Approach to Fabricate Air-Stable Perovskite Solar Cells via Addition of a Self-Polymerizing Ionic Liquid. *Advanced Materials*, **2020**, 32, e2003801	24	37
32	Low-Cost TiS2 as Hole-Transport Material for Perovskite Solar Cells. *Small Methods*, **2017**, 1, 1700250	12.8	35
31	Revisiting the Brewster Angle Microscopy: the relevance of the polar headgroup. *Advances in Colloid and Interface Science*, **2012**, 173, 12-22	14.3	35
30	A comparative study of Ir(III) complexes with pyrazino[2,3-f][1,10]phenanthroline and pyrazino[2,3-f][4,7]phenanthroline ligands in light-emitting electrochemical cells (LECs). *Dalton Transactions*, **2015**, 44, 14771-81	4.3	34
29	Applications of Self-Assembled Monolayers for Perovskite Solar Cells Interface Engineering to Address Efficiency and Stability. *Advanced Energy Materials*, **2020**, 10, 2002989	21.8	34
28	Inexpensive Hole-Transporting Materials Derived from Tröger's Base Afford Efficient and Stable Perovskite Solar Cells. *Angewandte Chemie - International Edition*, **2019**, 58, 11266-11272	16.4	30
27	Metal-Halide Perovskites for Gate Dielectrics in Field-Effect Transistors and Photodetectors Enabled by PMMA Lift-Off Process. *Advanced Materials*, **2018**, 30, e1707412	24	30
26	Crystal Orientation Drives the Interface Physics at Two/Three-Dimensional Hybrid Perovskites. *Journal of Physical Chemistry Letters*, **2019**, 10, 5713-5720	6.4	29

25	Air-Stable n-i-p Planar Perovskite Solar Cells Using Nickel Oxide Nanocrystals as Sole Hole-Transporting Material. *ACS Applied Energy Materials*, **2019**, 2, 4890-4899	6.1	29
24	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	16.4	29
23	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	6.7	27
22	Low-voltage, high-brightness and deep-red light-emitting electrochemical cells (LECs) based on new ruthenium(ii) phenanthroimidazole complexes. *Dalton Transactions*, **2016**, 45, 7195-9	4.3	26
21	Ruthenium phenanthroimidazole complexes for near infrared light-emitting electrochemical cells. *Journal of Materials Chemistry C*, **2016**, 4, 9674-9679	7.1	25
20	High-energy, efficient and transparent electrode for lithium batteries. *Journal of Materials Chemistry*, **2010**, 20, 2847		23
19	Molecular Design and Operational Stability: Toward Stable 3D/2D Perovskite Interlayers. *Advanced Science*, **2020**, 7, 2001014	13.6	23
18	D-A-Type Triazatruxene-Based Dopant-Free Hole Transporting Materials for Efficient and Stable Perovskite Solar Cells. *Solar Rrl*, **2020**, 4, 2000173	7.1	21
17	Molecular organization and effective energy transfer in iridium metallosurfactant-porphyrin assemblies embedded in Langmuir-Schaefer films. *Physical Chemistry Chemical Physics*, **2011**, 13, 2834-41	3.6	21
16	Engineering charge injection interfaces in hybrid light-emitting electrochemical cells. *ACS Applied Materials & Interfaces*, **2014**, 6, 19520-4	9.5	20
15	Control of the Lateral Organization in Langmuir Monolayers via Molecular Aggregation of Dyes. *Journal of Physical Chemistry C*, **2010**, 114, 16685-16695	3.8	16
14	Benzothiadiazole Aryl-amine Based Materials as Efficient Hole Carriers in Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2020**, 12, 32712-32718	9.5	14
13	Minimization of Carrier Losses for Efficient Perovskite Solar Cells through Structural Modification of Triphenylamine Derivatives. *Angewandte Chemie - International Edition*, **2020**, 59, 5303-5307	16.4	14
12	Picosecond Capture of Photoexcited Electrons Improves Photovoltaic Conversion in MAPbI :C -Doped Planar and Mesoporous Solar Cells. *Advanced Materials*, **2018**, 30, e1801496	24	13
11	Introduction of a Bifunctional Cation Affords Perovskite Solar Cells Stable at Temperatures Exceeding 80 °C. *ACS Energy Letters*, **2019**, 4, 2989-2994	20.1	13
10	Gradient band structure: high performance perovskite solar cells using poly(bisphenol A anhydride-co-1,3-phenylenediamine). *Journal of Materials Chemistry A*, **2020**, 8, 17113-17119	13	11
9	Co-evaporation as an optimal technique towards compact methylammonium bismuth iodide layers. *Scientific Reports*, **2020**, 10, 10640	4.9	10
8	Minimization of Carrier Losses for Efficient Perovskite Solar Cells through Structural Modification of Triphenylamine Derivatives. *Angewandte Chemie*, **2020**, 132, 5341-5345	3.6	6

7	UV-Vis reflection spectroscopy under variable angle incidence at the air-liquid interface. *Physical Chemistry Chemical Physics*, **2014**, 16, 4012-22	3.6	5
6	Interfacial passivation of wide-bandgap perovskite solar cells and tandem solar cells. *Journal of Materials Chemistry A*,	13	5
5	Azatruxene-Based, Dumbbell-Shaped, Donor-π-Bridge-Donor Hole-Transporting Materials for Perovskite Solar Cells. *Chemistry - A European Journal*, **2020**, 26, 11039-11047	4.8	4
4	Application of a Tetra-TPD-Type Hole-Transporting Material Fused by a Tröger's Base Core in Perovskite Solar Cells. *Solar Rrl*, **2019**, 3, 1900224	7.1	3
3	Crystallographically Oriented Hybrid Perovskites via Thermal Vacuum Codeposition. *Solar Rrl*, **2021**, 5, 2100191	7.1	2
2	Cation optimization for burn-in loss-free perovskite solar devices. *Journal of Materials Chemistry A*, **2021**, 9, 5374-5380	13	2
1	Inexpensive Hole-Transporting Materials Derived from Tröger's Base Afford Efficient and Stable Perovskite Solar Cells. *Angewandte Chemie*, **2019**, 131, 11388	3.6	1