Emilio J Juarez-Perez

List of Publications by Year
in descending order

72	8,318	94433 37	98798 67
papers	citations	h-index	g-index

77	77	77	9779
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	General Working Principles of CH₃NH₃PbX₃ Perovskite Solar Cells. Nano Letters, 2014, 14, 888-893.	9.1	786
2	Mechanism of carrier accumulation in perovskite thin-absorber solar cells. Nature Communications, 2013, 4, 2242.	12.8	760
3	Photoinduced Giant Dielectric Constant in Lead Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 2390-2394.	4.6	629
4	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
5	Role of the Selective Contacts in the Performance of Lead Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 680-685.	4.6	583
6	Accelerated degradation of methylammonium lead iodide perovskites induced by exposure to iodine vapour. Nature Energy, 2017, 2, .	39.5	491
7	Progress on Perovskite Materials and Solar Cells with Mixed Cations and Halide Anions. ACS Applied Materials & Interfaces, 2017, 9, 30197-30246.	8.0	453
8	Photodecomposition and thermal decomposition in methylammonium halide lead perovskites and inferred design principles to increase photovoltaic device stability. Journal of Materials Chemistry A, 2018, 6, 9604-9612.	10.3	437
9	Reduction of lead leakage from damaged lead halide perovskite solar modules using self-healing polymer-based encapsulation. Nature Energy, 2019, 4, 585-593.	39.5	327
10	Role of the Dopants on the Morphological and Transport Properties of Spiro-MeOTAD Hole Transport Layer. Chemistry of Materials, 2016, 28, 5702-5709.	6.7	194
11	Electrical field profile and doping in planar lead halide perovskite solar cells. Applied Physics Letters, 2014, 105, .	3.3	168
12	Thermal degradation of formamidinium based lead halide perovskites into <i>sym</i>-triazine and hydrogen cyanide observed by coupled thermogravimetry-mass spectrometry analysis. Journal of Materials Chemistry A, 2019, 7, 16912-16919.	10.3	163
13	Combination of Hybrid CVD and Cation Exchange for Upscaling Csâ€Substituted Mixed Cation Perovskite Solar Cells with High Efficiency and Stability. Advanced Functional Materials, 2018, 28, 1703835.	14.9	158
14	Post-annealing of MAPbI₃ perovskite films with methylamine for efficient perovskite solar cells. Materials Horizons, 2016, 3, 548-555.	12.2	141
15	Ball lightning plasma and plasma arc formation during the microwave heating of carbons. Carbon, 2011, 49, 346-349.	10.3	139
16	An open-access database and analysis tool for perovskite solar cells based on the FAIR data principles. Nature Energy, 2022, 7, 107-115.	39.5	136
17	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
18	Metallacarboranes and their interactions: theoretical insights and their applicability. Chemical Society Reviews, 2012, 41, 3445.	38.1	117

#	ARTICLE	IF	CITATIONS
19	Methylammonium Lead Bromide Perovskite Light-Emitting Diodes by Chemical Vapor Deposition. Journal of Physical Chemistry Letters, 2017, 8, 3193-3198.	4.6	113
20	The Causes of Degradation of Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 5889-5891.	4.6	113
21	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
22	Fast and low temperature growth of electron transport layers for efficient perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 4909-4915.	10.3	101
23	Synthesis and Characterization of New Fluorescent Styreneâ€Containing Carborane Derivatives: The Singular Quenching Role of a Phenyl Substituent. Chemistry - A European Journal, 2012, 18, 544-553.	3.3	88
24	Polymer/Perovskite Amplifying Waveguides for Active Hybrid Silicon Photonics. Advanced Materials, 2015, 27, 6157-6162.	21.0	83
25	Carbon-Based Electrode Engineering Boosts the Efficiency of All Low-Temperature-Processed Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 2032-2039.	17.4	79
26	Effect of Mesostructured Layer upon Crystalline Properties and Device Performance on Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 1628-1637.	4.6	78
27	Synthesis, Characterization, and Thermal Behavior of Carboranylâ€"Styrene Decorated Octasilsesquioxanes: Influence of the Carborane Clusters on Photoluminescence. Chemistry - A European Journal, 2013, 19, 17021-17030.	3.3	74
28	Negligibleâ€Pbâ€Waste and Upscalable Perovskite Deposition Technology for Highâ€Operationalâ€Stability Perovskite Solar Modules. Advanced Energy Materials, 2019, 9, 1803047.	19.5	68
29	Fast microwave-assisted synthesis of tailored mesoporous carbon xerogels. Journal of Colloid and Interface Science, 2011, 357, 541-547.	9.4	62
30	Carboranyl Substituted Siloxanes and Octasilsesquioxanes: Synthesis, Characterization, and Reactivity. Macromolecules, 2008, 41, 8458-8466.	4.8	57
31	Degradation Mechanism and Relative Stability of Methylammonium Halide Based Perovskites Analyzed on the Basis of Acidâ€"Base Theory. ACS Applied Materials & Interfaces, 2019, 11, 12586-12593.	8.0	55
32	Polyanionic Aryl Ether Metallodendrimers Based on Cobaltabisdicarbollide Derivatives. Photoluminescent Properties. Macromolecules, 2010, 43, 150-159.	4.8	54
33	The Role of Câ€"HÂ·Â·Â·Hâ€"B Interactions in Establishing Rotamer Configurations in Metallabis(dicarbollide) Systems. European Journal of Inorganic Chemistry, 2010, 2010, 2385-2392.	2.0	53
34	Influence of the substrate on the bulk properties of hybrid lead halide perovskite films. Journal of Materials Chemistry A, 2016, 4, 18153-18163.	10.3	52
35	Carboraneâ€"stilbene dyads: the influence of substituents and cluster isomers on photoluminescence properties. Dalton Transactions, 2017, 46, 2091-2104.	3.3	49
36	Polyanionic Carbosilane and Carbosiloxane Metallodendrimers Based on Cobaltabisdicarbollide Derivatives. Organometallics, 2009, 28, 5550-5559.	2.3	40

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37	Spin-Coated Crystalline Molecular Monolayers for Performance Enhancement in Organic Field-Effect Transistors. Journal of Physical Chemistry Letters, 2018, 9, 1318-1323.	4.6	37
38	Perovskite solar cells take a step forward. Science, 2020, 368, 1309-1309.	12.6	36
39	A Unique Case of Oxidative Addition of Interhalogens IX (X=Cl, Br) to Organodiselone Ligands: Nature of the Chemical Bonding in Asymmetric Iï£¿Seï£¿X Polarised Hypervalent Systems. Chemistry - A European Journal, 2011, 17, 11497-11514.	3.3	35
40	Hybrid lead halide [(CH₃)₂NH₂]PbX₃(X =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Journal of Materials Chemistry C, 2019, 7, 10008-10018.	5.5	35
41	Decorating Poly(alkyl aryl-ether) Dendrimers with Metallacarboranes. Inorganic Chemistry, 2010, 49, 9993-10000.	4.0	34
42	Relative impacts of methylammonium lead triiodide perovskite solar cells based on life cycle assessment. Solar Energy Materials and Solar Cells, 2018, 179, 169-177.	6.2	34
43	Recombination reduction on lead halide perovskite solar cells based on low temperature synthesized hierarchical TiO₂nanorods. Nanoscale, 2016, 8, 6271-6277.	5.6	28
44	Pulses of microwave radiation to improve coke grindability. Fuel, 2012, 102, 65-71.	6.4	27
45	Benchmarking Chemical Stability of Arbitrarily Mixed 3D Hybrid Halide Perovskites for Solar Cell Applications. Small Methods, 2018, 2, 1800242.	8.6	26
46	Controlled Direct Synthesis of C-Mono- and C-Disubstituted Derivatives of [3,3â€²-Co(1,2-C2B9H11)2]â^’ with Organosilane Groups: Theoretical Calculations Compared with Experimental Results. Chemistry - A European Journal, 2008, 14, 4924-4938.	3.3	23
47	The influence of secondary solvents on the morphology of a spiro-MeOTAD hole transport layer for lead halide perovskite solar cells. Journal Physics D: Applied Physics, 2018, 51, 294001.	2.8	23
48	First example of the formation of a Siâ€“C bond from an intramolecular Siâ€“Hâ‹¯Hâ€“C diyhydrogen interaction in a metallacarborane: A theoretical study. Journal of Organometallic Chemistry, 2009, 694, 1764-1770.	1.8	22
49	Anchoring of Phosphorus-Containing Cobaltabisdicarbollide Derivatives to Titania Surface. Langmuir, 2010, 26, 12185-12189.	3.5	22
50	Influence of Ion Migration from ITO and SiO₂ Substrates on Photo and Thermal Stability of CH₃NH₃SnI₃ Hybrid Perovskite. Journal of Physical Chemistry C, 2020, 124, 14928-14934.	3.1	18
51	Precise determination of the point of solâ€“gel transition in carbon gel synthesis using a microwave heating method. Carbon, 2010, 48, 3305-3308.	10.3	17
52	A microwave-based method for the synthesis of carbon xerogel spheres. Carbon, 2012, 50, 3555-3560.	10.3	17
53	Organoselenium(<scp>ii</scp>) halides containing the pincer 2,6-(Me₂NCH₂)₂C₆H₃ligand â€“ an experimental and theoretical investigation. Dalton Transactions, 2014, 43, 2221-2233.	3.3	15
54	Electrochemical behavior and capacitance properties of carbon xerogel/multiwalled carbon nanotubes composites. Journal of Solid State Electrochemistry, 2012, 16, 1067-1076.	2.5	13

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55	Fast synthesis of micro/mesoporous xerogels: Textural and energetic assessment. Microporous and Mesoporous Materials, 2015, 209, 2-9.	4.4	13
56	Nano-vault architecture mitigates stress in silicon-based anodes for lithium-ion batteries. Communications Materials, 2021, 2, .	6.9	13
57	Grafting of Metallacarboranes onto Selfâ€Assembled Monolayers Deposited on Silicon Wafers. Chemistry - an Asian Journal, 2012, 7, 277-281.	3.3	10
58	Nanostructured CuO films deposited on fluorine doped tin oxide conducting glass with a facile technology. Thin Solid Films, 2018, 660, 386-390.	1.8	10
59	Mechanisms of Spontaneous and Amplified Spontaneous Emission in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>CH</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi>NH</mml:mi><mml mathvariant="normal">I</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:math> Perovskite Thin Films Integrated in an Optical Waveguide. Physical Review Applied, 2020, 13, .	3.8	10
60	Formamidinium halide salts as precursors of carbon nitrides. Carbon, 2022, 196, 1035-1046.	10.3	9
61	Quantum Dot-Sensitized Solar Cells. Green Energy and Technology, 2014, , 89-136.	0.6	8
62	Structural characterization of bulk and nanoparticle lead halide perovskite thin films by (S)TEM techniques. Nanotechnology, 2019, 30, 135701.	2.6	5
63	Approaching isotropic transfer integrals in crystalline organic semiconductors. Physical Review Materials, 2020, 4, .	2.4	5
64	Largeâ€Area Perovskite Solar Modules: Combination of Hybrid CVD and Cation Exchange for Upscaling Csâ€Substituted Mixed Cation Perovskite Solar Cells with High Efficiency and Stability (Adv. Funct.) Tj ETQq0 0 0 rgBT/Overlock 10 Tf 5	15.9	4
65	Inhibition of light emission from the metastable tetragonal phase at low temperatures in island-like films of lead iodide perovskites. Nanoscale, 2019, 11, 22378-22386.	5.6	4
66	Short Photoluminescence Lifetimes Linked to Crystallite Dimensions, Connectivity, and Perovskite Crystal Phases. Journal of Physical Chemistry C, 2022, 126, 3466-3474.	3.1	4
67	Determination of Carrier Diffusion Length Using Transient Electron Photoemission Microscopy in the GaAs/InSe Heterojunction. Physica Status Solidi (B): Basic Research, 2019, 256, 1900126.	1.5	1
68	Halide perovskite amplifiers integrated in polymer waveguides. , 2016, , .		0
69	Optimization of semiconductor halide perovskite layers to implement waveguide amplifiers. , 2017, , .		0
70	Molienda asistida con microondas de un coque metalÃºrgico. Revista De Metalurgia, 2014, 50, e013.	0.5	0
71	Mitigation of photodecomposition processes in lead halide based solar cells to improve operational stability. , 0, , .		0
72	What does the HCN decomposition gas release tell us about the stability of formamidinium based perovskite?. , 0, , .		0