Daniele Meggiolaro

List of Publications by Year
in descending order

39 papers	4,568 citations	186265 28 h-index	302126 39 g-index
39 all docs	39 docs citations	39 times ranked	5786 citing authors

#	Article	IF	Citations
1	Large polarons in lead halide perovskites. Science Advances, 2017, 3, e1701217.	10.3	515
2	Iodine chemistry determines the defect tolerance of lead-halide perovskites. Energy and Environmental Science, 2018, 11, 702-713.	30.8	480
3	Broadband Emission in Two-Dimensional Hybrid Perovskites: The Role of Structural Deformation. Journal of the American Chemical Society, 2017, 139, 39-42.	13.7	336
4	Fluorescent Alloy CsPb_{<i>x</i>}Mn_{1â€“<i>x</i>}I₃ Perovskite Nanocrystals with High Structural and Optical Stability. ACS Energy Letters, 2017, 2, 2183-2186.	17.4	305
5	Light-induced annihilation of Frenkel defects in organo-lead halide perovskites. Energy and Environmental Science, 2016, 9, 3180-3187.	30.8	302
6	Controlling competing photochemical reactions stabilizes perovskite solar cells. Nature Photonics, 2019, 13, 532-539.	31.4	273
7	Formation of Surface Defects Dominates Ion Migration in Lead-Halide Perovskites. ACS Energy Letters, 2019, 4, 779-785.	17.4	219
8	First-Principles Modeling of Defects in Lead Halide Perovskites: Best Practices and Open Issues. ACS Energy Letters, 2018, 3, 2206-2222.	17.4	202
9	Defect Activity in Lead Halide Perovskites. Advanced Materials, 2019, 31, e1901183.	21.0	191
10	Instability of Tin Iodide Perovskites: Bulk p-Doping versus Surface Tin Oxidation. ACS Energy Letters, 2020, 5, 2787-2795.	17.4	143
11	The Doping Mechanism of Halide Perovskite Unveiled by Alkaline Earth Metals. Journal of the American Chemical Society, 2020, 142, 2364-2374.	13.7	132
12	Tin versus Lead Redox Chemistry Modulates Charge Trapping and Self-Doping in Tin/Lead Iodide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 3546-3556.	4.6	132
13	Tuning halide perovskite energy levels. Energy and Environmental Science, 2021, 14, 1429-1438.	30.8	124
14	Defect activity in metal halide perovskites with wide and narrow bandgap. Nature Reviews Materials, 2021, 6, 986-1002.	48.7	121
15	Electrochemical Hole Injection Selectively Expels Iodide from Mixed Halide Perovskite Films. Journal of the American Chemical Society, 2019, 141, 10812-10820.	13.7	104
16	Mechanism of Reversible Trap Passivation by Molecular Oxygen in Lead-Halide Perovskites. ACS Energy Letters, 2017, 2, 2794-2798.	17.4	100
17	Ultrafast THz Probe of Photoinduced Polarons in Lead-Halide Perovskites. Physical Review Letters, 2019, 122, 166601.	7.8	98
18	Modeling the Interaction of Molecular Iodine with MAPbI₃: A Probe of Lead-Halide Perovskites Defect Chemistry. ACS Energy Letters, 2018, 3, 447-451.	17.4	88

#	Article	IF	Citations
19	Polarons in Metal Halide Perovskites. Advanced Energy Materials, 2020, 10, 1902748.	19.5	84
20	From Large to Small Polarons in Lead, Tin, and Mixed Leadâ€“Tin Halide Perovskites. Journal of Physical Chemistry Letters, 2019, 10, 1790-1798.	4.6	72
21	First-Principles Modeling of Bismuth Doping in the MAPbI₃ Perovskite. Journal of Physical Chemistry C, 2018, 122, 14107-14112.	3.1	64
22	Charge localization and trapping at surfaces in lead-iodide perovskites: the role of polarons and defects. Journal of Materials Chemistry A, 2020, 8, 6882-6892.	10.3	49
23	Energy Level Tuning at the MAPbI₃ Perovskite/Contact Interface Using Chemical Treatment. ACS Energy Letters, 2019, 4, 2181-2184.	17.4	45
24	Halogenâ€Bonded Holeâ€Transport Material Suppresses Charge Recombination and Enhances Stability of Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2101553.	19.5	44
25	Charge Localization, Stabilization, and Hopping in Lead Halide Perovskites: Competition between Polaron Stabilization and Cation Disorder. ACS Energy Letters, 2019, 4, 2013-2020.	17.4	43
26	Lanthanide-Induced Photoluminescence in Lead-Free Cs₂AgBiBr₆ Bulk Perovskite: Insights from Optical and Theoretical Investigations. Journal of Physical Chemistry Letters, 2020, 11, 8893-8900.	4.6	38
27	Coupling halide perovskites with different materials: From doping to nanocomposites, beyond photovoltaics. Progress in Materials Science, 2020, 110, 100639.	32.8	38
28	Energy vs Charge Transfer in Manganese-Doped Lead Halide Perovskites. ACS Energy Letters, 2021, 6, 1869-1878.	17.4	36
29	Composition-Dependent Struggle between Iodine and Tin Chemistry at the Surface of Mixed Tin/Lead Perovskites. ACS Energy Letters, 2021, 6, 969-976.	17.4	27
30	Large Cation Engineering in Two-Dimensional Silverâ€“Bismuth Bromide Double Perovskites. Chemistry of Materials, 2021, 33, 4688-4700.	6.7	25
31	Formation of Color Centers in Lead Iodide Perovskites: Self-Trapping and Defects in the Bulk and Surfaces. Chemistry of Materials, 2020, 32, 6916-6924.	6.7	23
32	Modulating Band Alignment in Mixed Dimensionality 3D/2D Perovskites by Surface Termination Ligand Engineering. Chemistry of Materials, 2020, 32, 105-113.	6.7	19
33	Halide-driven formation of lead halide perovskites: insight from <i>ab initio</i> molecular dynamics simulations. Materials Advances, 2021, 2, 3915-3926.	5.4	18
34	<i>In situ</i> cadmium surface passivation of perovskite nanocrystals for blue LEDs. Journal of Materials Chemistry A, 2021, 9, 26750-26757.	10.3	18
35	Charge Carriers Are Not Affected by the Relatively Slow-Rotating Methylammonium Cations in Lead Halide Perovskite Thin Films. Journal of Physical Chemistry Letters, 2019, 10, 5128-5134.	4.6	16
36	Suppression of Tin Oxidation by 3D/2D Perovskite Interfacing. Journal of Physical Chemistry C, 2021, 125, 10901-10908.	3.1	15

#	Article	IF	Citations
37	Role of Terminal Group Position in Triphenylamine-Based Self-Assembled Hole-Selective Molecules in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 17461-17469.	8.0	15
38	The nature of the lead-iodine bond in PbI2: A case study for the modelling of lead halide perovskites. Computational and Theoretical Chemistry, 2019, 1164, 112558.	2.5	9
39	Brightly Luminescent and Moisture Tolerant Phenyl Viologen Lead Iodide Perovskites for Light Emission Applications. Journal of Physical Chemistry Letters, 2021, 12, 5456-5462.	4.6	5