T Jesper Jacobsson

List of Publications by Year
in descending order

41 papers	6,305 citations	159585 30 h-index	302126 39 g-index
41 all docs	41 docs citations	41 times ranked	9193 citing authors

#	Article	IF	Citations
1	The Complex Degradation Mechanism of Copper Electrodes on Lead Halide Perovskites. ACS Materials Au, 2022, 2, 301-312.	6.0	8
2	The Perovskite Database Project: A Perspective on Collective Data Sharing. ACS Energy Letters, 2022, 7, 1240-1245.	17.4	13
3	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
4	Device Performance of Emerging Photovoltaic Materials (Version 1). Advanced Energy Materials, 2021, 11, 2002774.	19.5	93
5	SnO_{<i>x</i>} Atomic Layer Deposition on Bare Perovskiteâ€"An Investigation of Initial Growth Dynamics, Interface Chemistry, and Solar Cell Performance. ACS Applied Energy Materials, 2021, 4, 510-522.	5.1	18
6	X-ray stability and degradation mechanism of lead halide perovskites and lead halides. Physical Chemistry Chemical Physics, 2021, 23, 12479-12489.	2.8	33
7	Device Performance of Emerging Photovoltaic Materials (Version 2). Advanced Energy Materials, 2021, 11, .	19.5	66
8	Temperature effects in lead halide perovskites. , 2020, , 181-196.		0
9	2-Terminal CIGS-perovskite tandem cells: A layer by layer exploration. Solar Energy, 2020, 207, 270-288.	6.1	44
10	Degradation Mechanism of Silver Metal Deposited on Lead Halide Perovskites. ACS Applied Materials & Interfaces, 2020, 12, 7212-7221.	8.0	85
11	Extending the Compositional Space of Mixed Lead Halide Perovskites by Cs, Rb, K, and Na Doping. Journal of Physical Chemistry C, 2018, 122, 13548-13557.	3.1	70
12	Photoelectrochemical water splitting: an idea heading towards obsolescence?. Energy and Environmental Science, 2018, 11, 1977-1979.	30.8	82
13	Effect of halide ratio and Cs+ addition on the photochemical stability of lead halide perovskites. Journal of Materials Chemistry A, 2018, 6, 22134-22144.	10.3	26
14	Photoinduced Stark Effects and Mechanism of Ion Displacement in Perovskite Solar Cell Materials. ACS Nano, 2017, 11, 2823-2834.	14.6	47
15	The rapid evolution of highly efficient perovskite solar cells. Energy and Environmental Science, 2017, 10, 710-727.	30.8	942
16	Photon Energy-Dependent Hysteresis Effects in Lead Halide Perovskite Materials. Journal of Physical Chemistry C, 2017, 121, 26180-26187.	3.1	26
17	Valence Level Character in a Mixed Perovskite Material and Determination of the Valence Band Maximum from Photoelectron Spectroscopy: Variation with Photon Energy. Journal of Physical Chemistry C, 2017, 121, 26655-26666.	3.1	98
18	Unbroken Perovskite: Interplay of Morphology, Electroâ€optical Properties, and Ionic Movement. Advanced Materials, 2016, 28, 5031-5037.	21.0	242

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19	Properties of Contact and Bulk Impedances in Hybrid Lead Halide Perovskite Solar Cells Including Inductive Loop Elements. Journal of Physical Chemistry C, 2016, 120, 8023-8032.	3.1	407
20	Room Temperature as a Goldilocks Environment for CH₃NH₃PbI₃ Perovskite Solar Cells: The Importance of Temperature on Device Performance. Journal of Physical Chemistry C, 2016, 120, 11382-11393.	3.1	58
21	Unreacted PbI₂ as a Double-Edged Sword for Enhancing the Performance of Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 10331-10343.	13.7	696
22	Effect of metal cation replacement on the electronic structure of metalorganic halide perovskites: Replacement of lead with alkaline-earth metals. Physical Review B, 2016, 93, .	3.2	145
23	Exploration of the compositional space for mixed lead halogen perovskites for high efficiency solar cells. Energy and Environmental Science, 2016, 9, 1706-1724.	30.8	622
24	A theoretical analysis of optical absorption limits and performance of tandem devices and series interconnected architectures for solar hydrogen production. Solar Energy Materials and Solar Cells, 2015, 138, 86-95.	6.2	34
25	Goldschmidtâ€™s Rules and Strontium Replacement in Lead Halogen Perovskite Solar Cells: Theory and Preliminary Experiments on CH₃NH₃SrI₃. Journal of Physical Chemistry C, 2015, 119, 25673-25683.	3.1	211
26	Determination of Thermal Expansion Coefficients and Locating the Temperature-Induced Phase Transition in Methylammonium Lead Perovskites Using X-ray Diffraction. Inorganic Chemistry, 2015, 54, 10678-10685.	4.0	213
27	Highly efficient planar perovskite solar cells through band alignment engineering. Energy and Environmental Science, 2015, 8, 2928-2934.	30.8	1,097
28	Phase Formation Behavior in Ultrathin Iron Oxide. Langmuir, 2015, 31, 12372-12381.	3.5	7
29	CIGS based devices for solar hydrogen production spanning from PEC-cells to PV-electrolyzers: A comparison of efficiency, stability and device topology. Solar Energy Materials and Solar Cells, 2015, 134, 185-193.	6.2	44
30	Optical quantum confinement in low dimensional hematite. Journal of Materials Chemistry A, 2014, 2, 3352-3363.	10.3	43
31	A size dependent discontinuous decay rate for the exciton emission in ZnO quantum dots. Physical Chemistry Chemical Physics, 2014, 16, 13849-13857.	2.8	36
32	Quantum Confined Stark Effects in ZnO Quantum Dots Investigated with Photoelectrochemical Methods. Journal of Physical Chemistry C, 2014, 118, 12061-12072.	3.1	21
33	Sustainable solar hydrogen production: from photoelectrochemical cells to PV-electrolyzers and back again. Energy and Environmental Science, 2014, 7, 2056-2070.	30.8	179
34	CuInxGa1âˆ’xSe2 as an efficient photocathode for solar hydrogen generation. International Journal of Hydrogen Energy, 2013, 38, 15027-15035.	7.1	52
35	A monolithic device for solar water splitting based on series interconnected thin film absorbers reaching over 10% solar-to-hydrogen efficiency. Energy and Environmental Science, 2013, 6, 3676.	30.8	211
36	A Spectroelectrochemical Method for Locating Fluorescence Trap States in Nanoparticles and Quantum Dots. Journal of Physical Chemistry C, 2013, 117, 5497-5504.	3.1	23

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37	Antireflective coatings of ZnO quantum dots and their photocatalytic activity. RSC Advances, 2012, 2, 10298.	3.6	29
38	Investigation of Vibrational Modes and Phonon Density of States in ZnO Quantum Dots. Journal of Physical Chemistry C, 2012, 116, 6893-6901.	3.1	37
39	Photoelectrochemical Determination of the Absolute Band Edge Positions as a Function of Particle Size for ZnO Quantum Dots. Journal of Physical Chemistry C, 2012, 116, 15692-15701.	3.1	54
40	Absorption and Fluorescence Spectroscopy of Growing ZnO Quantum Dots: Size and Band Gap Correlation and Evidence of Mobile Trap States. Inorganic Chemistry, 2011, 50, 9578-9586.	4.0	57
41	The Power of the Crowd. What Could be Learned by Collective Pooling of all the Worldâ€™s Perovskite Device Data, and How do We Get There?. , 0, , .		0