

Alex J Barker

List of Publications by Year in descending order

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31
papers

4,120
citations

331670

21
h-index

501196

28
g-index

33
all docs

33
docs citations

33
times ranked

6725
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of electronic doping and traps on carrier dynamics in tin halide perovskites. <i>Materials Horizons</i> , 2022, 9, 1763-1773.	12.2	23
2	Unusually Fast bis-Histidyl Coordination in a Plant Hemoglobin. <i>International Journal of Molecular Sciences</i> , 2021, 22, 2740.	4.1	0
3	Carbon Nitride Thin Films as All-In-One Technology for Photocatalysis. <i>ACS Catalysis</i> , 2021, 11, 11109-11116.	11.2	47
4	Disentangling Electron-Phonon Coupling and Thermal Expansion Effects in the Band Gap Renormalization of Perovskite Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 569-575.	4.6	29
5	N-type organic thermoelectrics: demonstration of $ZT > 0.3$. <i>Nature Communications</i> , 2020, 11, 5694.	12.8	98
6	New Synthetic Route of Ultrapure Alkylammonium Iodides for Perovskite Thin Films of Superior Optoelectronic Properties. <i>Energy Technology</i> , 2020, 8, 2000478.	3.8	3
7	Dynamical Imaging of Surface Photopotentials in Hybrid Lead Iodide Perovskite Films under High Optical Irradiance and the Role of Selective Contacts. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000297.	3.7	6
8	Defect Activity in Lead Halide Perovskites. <i>Advanced Materials</i> , 2019, 31, e1901183.	21.0	191
9	Controlling competing photochemical reactions stabilizes perovskite solar cells. <i>Nature Photonics</i> , 2019, 13, 532-539.	31.4	273
10	Imaging photoinduced surface potentials on hybrid perovskites by real-time Scanning Electron Microscopy. <i>Micron</i> , 2019, 121, 53-65.	2.2	9
11	Rational molecular passivation for high-performance perovskite light-emitting diodes. <i>Nature Photonics</i> , 2019, 13, 418-424.	31.4	970
12	High Exciton Diffusion Coefficients in Fused Ring Electron Acceptor Films. <i>Journal of the American Chemical Society</i> , 2019, 141, 6922-6929.	13.7	177
13	Pump-Probe for Ultrafast All-Optical Switching: The Case of a Nanographene Molecule. <i>Advanced Functional Materials</i> , 2019, 29, 1805249.	14.9	34
14	Broadband Defects Emission and Enhanced Ligand Raman Scattering in OD $\text{Cs}_3\text{Bi}_2\text{I}_9$ Colloidal Nanocrystals. <i>Advanced Functional Materials</i> , 2019, 29, 1805299.	14.9	44
15	Iodine chemistry determines the defect tolerance of lead-halide perovskites. <i>Energy and Environmental Science</i> , 2018, 11, 702-713.	30.8	480
16	High speed solution-processed hybrid perovskite photodetectors with low dark current enabled by a low temperature metal oxide interlayer. <i>Semiconductor Science and Technology</i> , 2018, 33, 094004.	2.0	14
17	Defect-Assisted Photoinduced Halide Segregation in Mixed-Halide Perovskite Thin Films. <i>ACS Energy Letters</i> , 2017, 2, 1416-1424.	17.4	437
18	Thermoelectric Properties of Highly Conductive Poly(3,4-ethylenedioxythiophene) Polystyrene Sulfonate Printed Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 18151-18160.	8.0	27

#	ARTICLE	IF	CITATIONS
19	Near-infrared emitting single squaraine dye aggregates with large Stokes shifts. <i>Journal of Materials Chemistry C</i> , 2017, 5, 7732-7738.	5.5	32
20	Carrier trapping and recombination: the role of defect physics in enhancing the open circuit voltage of metal halide perovskite solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 3472-3481.	30.8	409
21	Photoinduced Emissive Trap States in Lead Halide Perovskite Semiconductors. <i>ACS Energy Letters</i> , 2016, 1, 726-730.	17.4	137
22	Incoherent charge separation dynamics in organic photovoltaics. , 2016, , .		0
23	Quantitative Decoupling of Excited-State Absorption Cross Section and Population via Pump-Probe Spectroscopy with a Strong Probe. <i>Physical Review Applied</i> , 2015, 4, .	3.8	2
24	Thermochromism, Franck-Condon Analysis and Interfacial Dynamics of a Donor-Acceptor Copolymer with a Low Band Gap. <i>Chemistry of Materials</i> , 2015, 27, 2770-2779.	6.7	4
25	Role of microstructure in the electron-hole interaction of hybrid lead halide perovskites. <i>Nature Photonics</i> , 2015, 9, 695-701.	31.4	226
26	Effect of Carrier Thermalization Dynamics on Light Emission and Amplification in Organometal Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 153-158.	4.6	101
27	HIGH-SENSITIVITY ULTRAFAST TRANSIENT ABSORPTION SPECTROSCOPY OF ORGANIC PHOTOVOLTAIC DEVICES. , 2014, , .		0
28	Transient Grating Photoluminescence Spectroscopy: An Ultrafast Method of Gating Broadband Spectra. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1732-1737.	4.6	53
29	Distance Distributions of Photogenerated Charge Pairs in Organic Photovoltaic Cells. <i>Journal of the American Chemical Society</i> , 2014, 136, 12018-12026.	13.7	102
30	Broadband Ultrafast Photoluminescence Spectroscopy Resolves Charge Photogeneration via Delocalized Hot Excitons in Polymer:Fullerene Photovoltaic Blends. <i>Journal of the American Chemical Society</i> , 2013, 135, 18502-18512.	13.7	93
31	Exciton-Charge Annihilation in Organic Semiconductor Films. <i>Advanced Functional Materials</i> , 2012, 22, 1567-1577.	14.9	99