Daniel M Balazs

List of Publications by Year
in descending order

25 papers	880 citations	567144 15 h-index	610775 24 g-index
25 all docs	25 docs citations	25 times ranked	1571 citing authors

#	Article	IF	Citations
1	Counterion-Mediated Ligand Exchange for PbS Colloidal Quantum Dot Superlattices. ACS Nano, 2015, 9, 11951-11959.	7.3	121
2	Temperature dependent behaviour of lead sulfide quantum dot solar cells and films. Energy and Environmental Science, 2016, 9, 2916-2924.	15.6	119
3	Origin of the increased open circuit voltage in PbSâ€"CdS coreâ€"shell quantum dot solar cells. Journal of Materials Chemistry A, 2015, 3, 1450-1457.	5.2	91
4	Reducing charge trapping in PbS colloidal quantum dot solids. Applied Physics Letters, 2014, 104, .	1.5	65
5	Exciton Recombination in Formamidinium Lead Triiodide: Nanocrystals versus Thin Films. Small, 2017, 13, 1700673.	5.2	62
6	Stoichiometric control of the density of states in PbS colloidal quantum dot solids. Science Advances, 2017, 3, eaao1558.	4.7	62
7	Comparing Halide Ligands in PbS Colloidal Quantum Dots for Field-Effect Transistors and Solar Cells. ACS Applied Nano Materials, 2018, 1, 6882-6889.	2.4	60
8	Leadâ€Chalcogenide Colloidalâ€Quantumâ€Dot Solids: Novel Assembly Methods, Electronic Structure Control, and Application Prospects. Advanced Materials, 2018, 30, 1800082.	11.1	45
9	Electron Mobility of 24 cm² V^{âˆ'1} s^{âˆ'1} in PbSe Colloidalâ€Quantumâ€Dot Superlattices. Advanced Materials, 2018, 30, e1802265.	11.1	40
10	Colloidal Quantum Dot Inks for Single-Step-Fabricated Field-Effect Transistors: The Importance of Postdeposition Ligand Removal. ACS Applied Materials & Interfaces, 2018, 10, 5626-5632.	4.0	39
11	Increased efficiency in pn-junction PbS QD solar cells via NaHS treatment of the p-type layer. Applied Physics Letters, 2017, 110, .	1.5	26
12	Mechanistic Insights into Superlattice Transformation at a Single Nanocrystal Level Using Nanobeam Electron Diffraction. Nano Letters, 2020, 20, 5267-5274.	4.5	20
13	Coupled Dynamics of Colloidal Nanoparticle Spreading and Self-Assembly at a Fluidâ€"Fluid Interface. Langmuir, 2020, 36, 6106-6115.	1.6	19
14	Temperature-Dependent Optical Properties of PbS/CdS Core/Shell Quantum Dot Thin Films: Probing the Wave Function Delocalization. Journal of Physical Chemistry C, 2015, 119, 17480-17486.	1.5	18
15	Controlling Superstructureâ€"Property Relationships via Critical Casimir Assembly of Quantum Dots. Journal of Physical Chemistry C, 2019, 123, 13451-13457.	1.5	18
16	Free carrier generation and recombination in PbS quantum dot solar cells. Applied Physics Letters, 2016, 108, .	1.5	16
17	PbSe Nanorod Fieldâ€Effect Transistors: Roomâ€•and Lowâ€Temperature Performance. Advanced Electronic Materials, 2018, 4, 1700580.	2.6	13
18	Mapping Defect Relaxation in Quantum Dot Solids upon <i>In Situ</i> Heating. ACS Nano, 2021, 15, 719-726.	7.3	12

#	Article	IF	Citations
19	Fullerene derivatives with oligoethyleneâ€“glycol side chains: an investigation on the origin of their outstanding transport properties. Journal of Materials Chemistry C, 2021, 9, 16217-16225.	2.7	10
20	The Role of Dimer Formation in the Nucleation of Superlattice Transformations and Its Impact on Disorder. ACS Nano, 2020, 14, 11431-11441.	7.3	9
21	Fundamental Processes and Practical Considerations of Lead Chalcogenide Mesocrystals Formed via Self-Assembly and Directed Attachment of Nanocrystals at a Fluid Interface. Chemistry of Materials, 2021, 33, 9457-9472.	3.2	6
22	Inkjet printing of epitaxially connected nanocrystal superlattices. Nano Research, 2022, 15, 4536-4543.	5.8	5
23	Photoinitiated Transformation of Nanocrystal Superlattice Polymorphs Assembled at a Fluid Interface. Advanced Materials Interfaces, 2020, 7, 2001064.	1.9	3
24	Quantifying Atomic-Scale Quantum Dot Superlattice Behavior Upon in situ Heating. Microscopy and Microanalysis, 2019, 25, 1538-1539.	0.2	1
25	News in Nanocrystals Seminar: Self-Assembly of Early Career Researchers toward Globally Accessible Nanoscience. ACS Nano, 2021, 15, 10743-10747.	7.3	0