Nuri A Yazdani

List of Publications by Year
in descending order

39 papers	1,488 citations	361045 20 h-index	329751 37 g-index
40 all docs	40 docs citations	40 times ranked	2344 citing authors

#	Article	IF	Citations
1	Colloidal quantum dot electronics. Nature Electronics, 2021, 4, 548-558.	13.1	192
2	Towards designing robust coupled networks. Scientific Reports, 2013, 3, 1969.	1.6	162
3	Soft surfaces of nanomaterials enable strong phonon interactions. Nature, 2016, 531, 618-622.	13.7	133
4	Probing Solventâ€“Ligand Interactions in Colloidal Nanocrystals by the NMR Line Broadening. Chemistry of Materials, 2018, 30, 5485-5492.	3.2	117
5	A quantitative model for charge carrier transport, trapping and recombination in nanocrystal-based solar cells. Nature Communications, 2015, 6, 6180.	5.8	113
6	Tuning Electronâ€“Phonon Interactions in Nanocrystals through Surface Termination. Nano Letters, 2018, 18, 2233-2242.	4.5	68
7	Ultra-narrow room-temperature emission from single CsPbBr3 perovskite quantum dots. Nature Communications, 2022, 13, 2587.	5.8	66
8	Upscaling Colloidal Nanocrystal Hot-Injection Syntheses via Reactor Underpressure. Chemistry of Materials, 2017, 29, 796-803.	3.2	51
9	Charge transport in semiconductors assembled from nanocrystal quantum dots. Nature Communications, 2020, 11, 2852.	5.8	51
10	Bulk and Nanocrystalline Cesium Lead-Halide Perovskites as Seen by Halide Magnetic Resonance. ACS Central Science, 2020, 6, 1138-1149.	5.3	43
11	Hole Mobility in Nanocrystal Solids as a Function of Constituent Nanocrystal Size. Journal of Physical Chemistry Letters, 2014, 5, 3522-3527.	2.1	41
12	Phonon-Mediated and Weakly Size-Dependent Electron and Hole Cooling in CsPbBr₃ Nanocrystals Revealed by Atomistic Simulations and Ultrafast Spectroscopy. Nano Letters, 2020, 20, 1819-1829.	4.5	41
13	Metalâ€Dielectricâ€CNT Nanowires for Femtomolar Chemical Detection by Surface Enhanced Raman Spectroscopy. Advanced Materials, 2013, 25, 4431-4436.	11.1	31
14	Size, Ligand, and Defect-Dependent Electronâ€“Phonon Coupling in Chalcogenide and Perovskite Nanocrystals and Its Impact on Luminescence Line Widths. ACS Photonics, 2020, 7, 1088-1095.	3.2	31
15	Machine Learning for Analysis of Time-Resolved Luminescence Data. ACS Photonics, 2018, 5, 4888-4895.	3.2	29
16	Modeling and optimization of atomic layer deposition processes on vertically aligned carbon nanotubes. Beilstein Journal of Nanotechnology, 2014, 5, 234-244.	1.5	27
17	Nanocrystal superlattices as phonon-engineered solids and acoustic metamaterials. Nature Communications, 2019, 10, 4236.	5.8	25
18	Facile diameter control of vertically aligned, narrow single-walled carbon nanotubes. RSC Advances, 2013, 3, 1434-1441.	1.7	22

#	Article	IF	Citations
19	Measuring the Electronic Structure of Nanocrystal Thin Films Using Energy-Resolved Electrochemical Impedance Spectroscopy. Journal of Physical Chemistry Letters, 2018, 9, 1384-1392.	2.1	22
20	Measuring the Vibrational Density of States of Nanocrystal-Based Thin Films with Inelastic X-ray Scattering. Journal of Physical Chemistry Letters, 2018, 9, 1561-1567.	2.1	20
21	Nonequilibrium Thermodynamics of Colloidal Gold Nanocrystals Monitored by Ultrafast Electron Diffraction and Optical Scattering Microscopy. ACS Nano, 2020, 14, 4792-4804.	7.3	20
22	Quantifying Diffusion through Interfaces of Lithium-Ion Battery Active Materials. ACS Applied Materials & Interfaces, 2020, 12, 16243-16249.	4.0	19
23	Dynamic lattice distortions driven by surface trapping in semiconductor nanocrystals. Nature Communications, 2021, 12, 1860.	5.8	19
24	Surface phonons of lithium ion battery active materials. Sustainable Energy and Fuels, 2019, 3, 508-513.	2.5	18
25	SWIMRT: A graphical user interface using the sliding window algorithm to construct a fluence map machine file. Journal of Applied Clinical Medical Physics, 2006, 7, 69-85.	0.8	17
26	In Situ Measurement and Control of the Fermi Level in Colloidal Nanocrystal Thin Films during Their Fabrication. Journal of Physical Chemistry Letters, 2018, 9, 7165-7172.	2.1	14
27	Dopants and Traps in Nanocrystal-Based Semiconductor Thin Films: Origins and Measurement of Electronic Midgap States. ACS Applied Electronic Materials, 2020, 2, 398-404.	2.0	13
28	In Situ Monitoring of Cation-Exchange Reaction Shell Growth on Nanocrystals. Journal of Physical Chemistry C, 2017, 121, 24345-24351.	1.5	12
29	Simulating nanocrystal-based solar cells: A lead sulfide case study. Journal of Chemical Physics, 2019, 151, 241104.	1.2	12
30	Metasurface Colloidal Quantum Dot Photodetectors. ACS Photonics, 2022, 9, 482-492.	3.2	11
31	Enhanced Charge Transport Kinetics in Anisotropic, Stratified Photoanodes. ACS Applied Materials & Interfaces, 2014, 6, 1389-1393.	4.0	10
32	Manipulating Electronic Structure from the Bottom-Up: Colloidal Nanocrystal-Based Semiconductors. Journal of Physical Chemistry Letters, 2020, 11, 9255-9264.	2.1	9
33	Recombination Dynamics in PbS Nanocrystal Quantum Dot Solar Cells Studied through Driftâ€“Diffusion Simulations. ACS Applied Electronic Materials, 2021, 3, 4977-4989.	2.0	8
34	Effect of Positional Disorders on Charge Transport in Nanocrystal Quantum Dot Thin Films. ACS Applied Electronic Materials, 2022, 4, 631-642.	2.0	8
35	Phonon-engineered solids constructed from nanocrystals. APL Materials, 2019, 7, 081124.	2.2	7
36	Enhanced ferromagnetism from electron-electron interactions in double-exchange-type models. Physical Review B, 2011, 83, .	1.1	1

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37	Phonon-Mediated and Weakly Size-Dependent Electron and Hole Cooling in CsPbBr3 Nanocrystals Revealed by Atomistic Simulations and Ultrafast Spectroscopy. , 0, , .		0
38	Magnetic Resonance Spectroscopy of Bulk and Nanocrystalline Cesium Lead Halide Perovskites. , 0, , .		0
39	Measuring Electron-Phonon Coupling induced Lattice Reorganization in Lead Halide Perovskite Nanocrystals through Femto-Second Resolved Optical-pump Diffraction-probe experiments. , 0, , .		0