

Richard D Robinson

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

59
papers

7,785
citations

32
h-index

64
g-index

64
ext. papers

8,485
ext. citations

10.1
avg, IF

5.48
L-index

#	Paper	IF	Citations
59	Imaging atomic-scale chemistry from fused multi-modal electron microscopy. <i>Npj Computational Materials</i> , 2022 , 8,	10.9	1
58	Explanation of the Opposing Shifts in the Absorption Edge and the Optical Resonance in CuFeS ₂ Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2022 , 126, 5592-5597	3.8	
57	Enhanced Li-ion diffusion and electrochemical performance in strained-manganese-iron oxide core-shell nanoparticles. <i>Journal of Chemical Physics</i> , 2021 , 155, 144702	3.9	1
56	Interplay between Chemical Transformations and Atomic Structure in Nanocrystals and Nanoclusters. <i>Accounts of Chemical Research</i> , 2021 , 54, 509-519	24.3	4
55	Fe Cations Control the Plasmon Evolution in CuFeS ₂ Nanocrystals. <i>Chemistry of Materials</i> , 2021 , 33, 608-615	6.15	5
54	The Direct Electrospinning and Manipulation of Magic-Sized Cluster Quantum Dots. <i>Advanced Engineering Materials</i> , 2021 , 23, 2170051	3.5	
53	Electronic Charge Transport: Breakdown of the Small-Polaron Hopping Model in Higher-Order Spinel (Adv. Mater. 49/2020). <i>Advanced Materials</i> , 2020 , 32, 2070368	24	
52	Breakdown of the Small-Polaron Hopping Model in Higher-Order Spinel. <i>Advanced Materials</i> , 2020 , 32, e2004490	24	5
51	Tertiary Hierarchical Complexity in Assemblies of Sulfur-Bridged Metal Chiral Clusters. <i>Journal of the American Chemical Society</i> , 2020 , 142, 14495-14503	16.4	10
50	Mn Cations Control Electronic Transport in Spinel Co _x Mn _{3-x} O ₄ Nanoparticles. <i>Chemistry of Materials</i> , 2019 , 31, 4228-4233	9.6	14
49	Assessment of Soft Ligand Removal Strategies: Alkylation as a Promising Alternative to High-Temperature Treatments for Colloidal Nanoparticle Surfaces 2019 , 1, 177-184		13
48	Chemically reversible isomerization of inorganic clusters. <i>Science</i> , 2019 , 363, 731-735	33.3	42
47	Nanocrystal Symmetry Breaking and Accelerated Solid-State Diffusion in the Lead-Cadmium Sulfide Cation Exchange system. <i>Chemistry of Materials</i> , 2019 , 31, 991-1005	9.6	12
46	Mesophase Formation Stabilizes High-Purity Magic-Sized Clusters. <i>Journal of the American Chemical Society</i> , 2018 , 140, 3652-3662	16.4	44
45	X-ray emission spectroscopy: an effective route to extract site occupation of cations. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 28990-29000	3.6	14
44	Surface chemistry of cadmium sulfide magic-sized clusters: a window into ligand-nanoparticle interactions. <i>Chemical Communications</i> , 2017 , 53, 2866-2869	5.8	27
43	Selective Etching of Copper Sulfide Nanoparticles and Heterostructures through Sulfur Abstraction: Phase Transformations and Optical Properties. <i>Chemistry of Materials</i> , 2016 , 28, 8530-8541	9.6	36

42	Increased activity in hydrogen evolution electrocatalysis for partial anionic substitution in cobalt oxysulfide nanoparticles. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 2842-2848	13	24
41	Nanomaterial datasets to advance tomography in scanning transmission electron microscopy. <i>Scientific Data</i> , 2016 , 3, 160041	8.2	36
40	Reconfigurable Nanorod Films: An in Situ Study of the Relationship between the Tunable Nanorod Orientation and the Optical Properties of Their Self-Assembled Thin Films. <i>Chemistry of Materials</i> , 2015 , 27, 2659-2665	9.6	12
39	Enhanced Supercapacitor Performance for Equal Co/Mn Stoichiometry in Colloidal Co _{3-x} Mn _x O ₄ Nanoparticles, in Additive-Free Electrodes. <i>Chemistry of Materials</i> , 2015 , 27, 7861-7873	9.6	66
38	Prodigious Effects of Concentration Intensification on Nanoparticle Synthesis: A High-Quality, Scalable Approach. <i>Journal of the American Chemical Society</i> , 2015 , 137, 15843-51	16.4	46
37	A General Method for High-Performance Li-Ion Battery Electrodes from Colloidal Nanoparticles without the Introduction of Binders or Conductive-Carbon Additives: The Cases of MnS, Cu(2-x)S, and Ge. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 25053-60	9.5	33
36	Nanocluster seed-mediated synthesis of CuInS ₂ quantum dots, nanodisks, nanorods, and doped Zn-CuInGaS ₂ quantum dots. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 1044-1055	7.1	33
35	Enhancement of phonon backscattering due to confinement of ballistic phonon pathways in silicon as studied with a microfabricated phonon spectrometer. <i>Applied Physics Letters</i> , 2015 , 107, 173102	3.4	1
34	Electrophoretic deposition improves catalytic performance of Co ₃ O ₄ nanoparticles for oxygen reduction/oxygen evolution reactions. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 4274-4283	13	61
33	Direct measurements of surface scattering in Si nanosheets using a microscale phonon spectrometer: implications for Casimir-limit predicted by Ziman theory. <i>Nano Letters</i> , 2014 , 14, 403-15	11.5	28
32	Highly conductive Cu _{2-x} S nanoparticle films through room-temperature processing and an order of magnitude enhancement of conductivity via electrophoretic deposition. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 18911-20	9.5	39
31	Analytical modeling of localized surface plasmon resonance in heterostructure copper sulfide nanocrystals. <i>Journal of Chemical Physics</i> , 2014 , 141, 164125	3.9	11
30	Solid-solid phase transformations induced through cation exchange and strain in 2D heterostructured copper sulfide nanocrystals. <i>Nano Letters</i> , 2014 , 14, 7090-9	11.5	122
29	Chalcogenidometallate Clusters as Surface Ligands for PbSe Nanocrystal Field-Effect Transistors. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 3377-3385	3.8	27
28	Chemical transformations of nanomaterials for energy applications. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 5965-5978	13	44
27	Misfit layered Ca ₃ Co ₄ O ₉ as a high figure of merit p-type transparent conducting oxide film through solution processing. <i>Applied Physics Letters</i> , 2014 , 104, 161901	3.4	28
26	(NH ₄) ₂ S, a highly reactive molecular precursor for low temperature anion exchange reactions in nanoparticles. <i>Dalton Transactions</i> , 2013 , 42, 12596-9	4.3	32
25	Progress, challenges, and opportunities in two-dimensional materials beyond graphene. <i>ACS Nano</i> , 2013 , 7, 2898-926	16.7	3414

24	The Oxidation of Cobalt Nanoparticles into Kirkendall-Hollowed CoO and Co ₃ O ₄ : The Diffusion Mechanisms and Atomic Structural Transformations. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 14303-14312	2.8	112
23	Defining Crystalline/Amorphous Phases of Nanoparticles through X-ray Absorption Spectroscopy and X-ray Diffraction: The Case of Nickel Phosphide. <i>Chemistry of Materials</i> , 2013 , 25, 2394-2403	9.6	81
22	Synthesis and properties of electrically conductive, ductile, extremely long (~50 μ m) nanosheets of K(x)CoO ₂ yH ₂ O. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 8998-9007	9.5	8
21	Design and operation of a microfabricated phonon spectrometer utilizing superconducting tunnel junctions as phonon transducers. <i>New Journal of Physics</i> , 2013 , 15, 043018	2.9	7
20	Binder-free and carbon-free nanoparticle batteries: a method for nanoparticle electrodes without polymeric binders or carbon black. <i>Nano Letters</i> , 2012 , 12, 5122-30	11.5	114
19	Unintended phosphorus doping of nickel nanoparticles during synthesis with TOP: a discovery through structural analysis. <i>Nano Letters</i> , 2012 , 12, 4530-9	11.5	69
18	Scalable nanomanufacturing of millimetre-length 2D Na _x CoO ₂ nanosheets. <i>Journal of Materials Chemistry</i> , 2012 , 22, 5936		18
17	A generic method for rational scalable synthesis of monodisperse metal sulfide nanocrystals. <i>Nano Letters</i> , 2012 , 12, 5856-60	11.5	80
16	Surfactant ligand removal and rational fabrication of inorganically connected quantum dots. <i>Nano Letters</i> , 2011 , 11, 5356-61	11.5	187
15	The structural evolution and diffusion during the chemical transformation from cobalt to cobalt phosphide nanoparticles. <i>Journal of Materials Chemistry</i> , 2011 , 21, 11498		120
14	Controlled synthesis of uniform cobalt phosphide hyperbranched nanocrystals using tri-n-octylphosphine oxide as a phosphorus source. <i>Nano Letters</i> , 2011 , 11, 188-97	11.5	103
13	Non-equilibrium phonon generation and detection in microstructure devices. <i>Review of Scientific Instruments</i> , 2011 , 82, 104905	1.7	5
12	Formation mechanism and properties of CdS-Ag ₂ S nanorod superlattices. <i>ACS Nano</i> , 2008 , 2, 627-36	16.7	82
11	Spontaneous superlattice formation in nanorods through partial cation exchange. <i>Science</i> , 2007 , 317, 355-8	33.3	632
10	Barium titanate nanocrystals and nanocrystal thin films: Synthesis, ferroelectricity, and dielectric properties. <i>Journal of Applied Physics</i> , 2006 , 100, 034316	2.5	111
9	Observation of Fano asymmetry in Raman spectra of SrTiO ₃ and Ca _x Sr _{1-x} TiO ₃ perovskite nanocubes. <i>Applied Physics Letters</i> , 2006 , 89, 223130	3.4	60
8	Raman microprobe analysis of elastic strain and fracture in electrophoretically deposited CdSe nanocrystal films. <i>Nano Letters</i> , 2006 , 6, 175-80	11.5	32
7	Phases in Ceria/Zirconia Binary Oxide (1-x)CeO ₂ xZrO ₂ Nanoparticles: The Effect of Particle Size. <i>Journal of the American Ceramic Society</i> , 2006 , 89, 1028-1036	3.8	134

6	Raman scattering in Hf _x Zr _{1-x} O ₂ nanoparticles. <i>Physical Review B</i> , 2005 , 71,	3.3	18
5	Solid-Solution Nanoparticles: Use of a Nonhydrolytic Sol-Gel Synthesis To Prepare HfO ₂ and Hf _x Zr _{1-x} O ₂ Nanocrystals. <i>Chemistry of Materials</i> , 2004 , 16, 1336-1342	9.6	128
4	Visible thermal emission from sub-band-gap laser excited cerium dioxide particles. <i>Journal of Applied Physics</i> , 2002 , 92, 1936-1941	2.5	50
3	Cerium oxide nanoparticles: Size-selective formation and structure analysis. <i>Applied Physics Letters</i> , 2002 , 80, 127-129	3.4	558
2	Size-dependent properties of CeO ₂ nanoparticles as studied by Raman scattering. <i>Physical Review B</i> , 2001 , 64,	3.3	786
1	The Direct Electrospinning and Manipulation of Magic-Sized Cluster Quantum Dots. <i>Advanced Engineering Materials</i> , 2100661	3.5	