

# Christopher B Murray

## List of Publications by Citations

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238  
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76  
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245  
ext. papers

28,727  
ext. citations

13  
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L-index

#	Paper	IF	Citations
238	Structural diversity in binary nanoparticle superlattices. <i>Nature</i> , <b>2006</b> , 439, 55-9	50.4	1776
237	PbSe nanocrystal solids for n- and p-channel thin film field-effect transistors. <i>Science</i> , <b>2005</b> , 310, 86-9	33.3	1455
236	Designing PbSe nanowires and nanorings through oriented attachment of nanoparticles. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 7140-7	16.4	1119
235	Control of metal nanocrystal size reveals metal-support interface role for ceria catalysts. <i>Science</i> , <b>2013</b> , 341, 771-3	33.3	916
234	Prospects of nanoscience with nanocrystals. <i>ACS Nano</i> , <b>2015</b> , 9, 1012-57	16.7	849
233	Nonaqueous synthesis of TiO <sub>2</sub> nanocrystals using TiF <sub>4</sub> to engineer morphology, oxygen vacancy concentration, and photocatalytic activity. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 6751-61	16.4	745
232	Using binary surfactant mixtures to simultaneously improve the dimensional tunability and monodispersity in the seeded growth of gold nanorods. <i>Nano Letters</i> , <b>2013</b> , 13, 765-71	11.5	708
231	Binary nanocrystal superlattice membranes self-assembled at the liquid-air interface. <i>Nature</i> , <b>2010</b> , 466, 474-7	50.4	661
230	Improved size-tunable synthesis of monodisperse gold nanorods through the use of aromatic additives. <i>ACS Nano</i> , <b>2012</b> , 6, 2804-17	16.7	641
229	A generalized ligand-exchange strategy enabling sequential surface functionalization of colloidal nanocrystals. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 998-1006	16.4	631
228	Cluster-assembled materials. <i>ACS Nano</i> , <b>2009</b> , 3, 244-55	16.7	528
227	Quasicrystalline order in self-assembled binary nanoparticle superlattices. <i>Nature</i> , <b>2009</b> , 461, 964-7	50.4	485
226	Synergism in binary nanocrystal superlattices leads to enhanced p-type conductivity in self-assembled PbTe/Ag <sub>2</sub> Te thin films. <i>Nature Materials</i> , <b>2007</b> , 6, 115-21	27	460
225	Structural characterization of self-assembled multifunctional binary nanoparticle superlattices. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 3620-37	16.4	412
224	Synthesis of monodisperse nanoparticles of barium titanate: toward a generalized strategy of oxide nanoparticle synthesis. <i>Journal of the American Chemical Society</i> , <b>2001</b> , 123, 12085-6	16.4	410
223	Morphologically controlled synthesis of colloidal upconversion nanophosphors and their shape-directed self-assembly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 22430-5	11.5	385
222	Magnetic, electronic, and structural characterization of nonstoichiometric iron oxides at the nanoscale. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 14583-99	16.4	365

221	Charge transport in strongly coupled quantum dot solids. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 1013-26	28.7	364
220	Platinum nanocrystals selectively shaped using facet-specific peptide sequences. <i>Nature Chemistry</i> , <b>2011</b> , 3, 393-9	17.6	361
219	Bandlike transport in strongly coupled and doped quantum dot solids: a route to high-performance thin-film electronics. <i>Nano Letters</i> , <b>2012</b> , 12, 2631-8	11.5	310
218	Synthesis and electrocatalytic properties of cubic Mn-Pt nanocrystals (nanocubes). <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 7568-9	16.4	310
217	Dipole-dipole interactions in nanoparticle superlattices. <i>Nano Letters</i> , <b>2007</b> , 7, 1213-9	11.5	294
216	Solution-phase synthesis of titanium dioxide nanoparticles and nanocrystals. <i>Chemical Reviews</i> , <b>2014</b> , 114, 9319-45	68.1	291
215	Self-assembly of PbTe quantum dots into nanocrystal superlattices and glassy films. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 3248-55	16.4	287
214	Thiocyanate-capped nanocrystal colloids: vibrational reporter of surface chemistry and solution-based route to enhanced coupling in nanocrystal solids. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 15753-61	16.4	278
213	CdSe and CdSe/CdS nanorod solids. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 12984-8	16.4	267
212	Competition of shape and interaction patchiness for self-assembling nanoplates. <i>Nature Chemistry</i> , <b>2013</b> , 5, 466-73	17.6	253
211	Synthesis, shape control, and methanol electro-oxidation properties of Pt-Zn alloy and Pt <sub>3</sub> Zn intermetallic nanocrystals. <i>ACS Nano</i> , <b>2012</b> , 6, 5642-7	16.7	242
210	Metal-enhanced upconversion luminescence tunable through metal nanoparticle-nanophosphor separation. <i>ACS Nano</i> , <b>2012</b> , 6, 8758-66	16.7	240
209	Enhanced thermopower via carrier energy filtering in solution-processable Pt-Sb <sub>2</sub> Te <sub>3</sub> nanocomposites. <i>Nano Letters</i> , <b>2011</b> , 11, 2841-4	11.5	200
208	Synthesis of monodisperse PbSe nanorods: a case for oriented attachment. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 3909-13	16.4	191
207	Exploiting the colloidal nanocrystal library to construct electronic devices. <i>Science</i> , <b>2016</b> , 352, 205-8	33.3	189
206	The state of nanoparticle-based nanoscience and biotechnology: progress, promises, and challenges. <i>ACS Nano</i> , <b>2012</b> , 6, 8468-83	16.7	188
205	Stoichiometric control of lead chalcogenide nanocrystal solids to enhance their electronic and optoelectronic device performance. <i>ACS Nano</i> , <b>2013</b> , 7, 2413-21	16.7	188
204	Plasmonic enhancement of nanophosphor upconversion luminescence in Au nanohole arrays. <i>ACS Nano</i> , <b>2013</b> , 7, 7186-92	16.7	174

203	Designing high-performance PbS and PbSe nanocrystal electronic devices through stepwise, post-synthesis, colloidal atomic layer deposition. <i>Nano Letters</i> , <b>2014</b> , 14, 1559-66	11.5	166
202	Design of Pt-Pd binary superlattices exploiting shape effects and synergistic effects for oxygen reduction reactions. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 42-5	16.4	166
201	Seeded growth of monodisperse gold nanorods using bromide-free surfactant mixtures. <i>Nano Letters</i> , <b>2013</b> , 13, 2163-71	11.5	161
200	Thiocyanate-capped PbS nanocubes: ambipolar transport enables quantum dot based circuits on a flexible substrate. <i>Nano Letters</i> , <b>2011</b> , 11, 4764-7	11.5	160
199	Efficient removal of organic ligands from supported nanocrystals by fast thermal annealing enables catalytic studies on well-defined active phases. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 6906-11	16.4	156
198	Highly active Pt <sub>3</sub> Pb and core-shell Pt <sub>3</sub> Pb-Pt electrocatalysts for formic acid oxidation. <i>ACS Nano</i> , <b>2012</b> , 6, 2818-25	16.7	155
197	Shape-dependent plasmonic response and directed self-assembly in a new semiconductor building block, indium-doped cadmium oxide (ICO). <i>Nano Letters</i> , <b>2013</b> , 13, 2857-63	11.5	153
196	Shape-controlled synthesis of Pt nanocrystals: the role of metal carbonyls. <i>ACS Nano</i> , <b>2013</b> , 7, 645-53	16.7	149
195	Monodisperse core/shell Ni/FePt nanoparticles and their conversion to Ni/Pt to catalyze oxygen reduction. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 15921-4	16.4	144
194	Two-dimensional binary and ternary nanocrystal superlattices: the case of monolayers and bilayers. <i>Nano Letters</i> , <b>2011</b> , 11, 1804-9	11.5	144
193	Polymorphism in AB(13) nanoparticle superlattices: an example of semiconductor-metal metamaterials. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 8741-7	16.4	143
192	Visualizing non-equilibrium lithiation of spinel oxide via in situ transmission electron microscopy. <i>Nature Communications</i> , <b>2016</b> , 7, 11441	17.4	143
191	Doubling the efficiency of third harmonic generation by positioning ITO nanocrystals into the hot-spot of plasmonic gap-antennas. <i>Nano Letters</i> , <b>2014</b> , 14, 2867-72	11.5	137
190	Substitutional doping in nanocrystal superlattices. <i>Nature</i> , <b>2015</b> , 524, 450-3	50.4	133
189	Collective dipolar interactions in self-assembled magnetic binary nanocrystal superlattice membranes. <i>Nano Letters</i> , <b>2010</b> , 10, 5103-8	11.5	125
188	Synthesis of Colloidal PbSe/PbS CoreShell Nanowires and PbS/Au Nanowire Nanocrystal Heterostructures. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 14049-14054	3.8	114
187	Bimetallic synergy in cobalt-palladium nanocatalysts for CO oxidation. <i>Nature Catalysis</i> , <b>2019</b> , 2, 78-85	36.5	114
186	Synthesis and X-ray Characterization of Cobalt Phosphide (Co <sub>2</sub> P) Nanorods for the Oxygen Reduction Reaction. <i>ACS Nano</i> , <b>2015</b> , 9, 8108-15	16.7	109

185	Photocatalytic Hydrogen Evolution from Substoichiometric Colloidal WO <sub>3</sub> Nanowires. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 1904-1910	20.1	109
184	Engineering catalytic contacts and thermal stability: gold/iron oxide binary nanocrystal superlattices for CO oxidation. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 1499-505	16.4	107
183	Plasmon-enhanced upconversion luminescence in single nanophosphor-nanorod heterodimers formed through template-assisted self-assembly. <i>ACS Nano</i> , <b>2014</b> , 8, 9482-91	16.7	105
182	In vivo multiple color lymphatic imaging using upconverting nanocrystals. <i>Journal of Materials Chemistry</i> , <b>2009</b> , 19, 6481		104
181	Tunable plasmonic coupling in self-assembled binary nanocrystal superlattices studied by correlated optical microspectrophotometry and electron microscopy. <i>Nano Letters</i> , <b>2013</b> , 13, 1291-7	11.5	103
180	One-step green synthesis of gold and silver nanoparticles with ascorbic acid and their versatile surface post-functionalization. <i>RSC Advances</i> , <b>2016</b> , 6, 33092-33100	3.7	102
179	Mechanisms for High Selectivity in the Hydrodeoxygenation of 5-Hydroxymethylfurfural over PtCo Nanocrystals. <i>ACS Catalysis</i> , <b>2016</b> , 6, 4095-4104	13.1	100
178	Solution-processed phase-change VO(2) metamaterials from colloidal vanadium oxide (VO(x)) nanocrystals. <i>ACS Nano</i> , <b>2014</b> , 8, 797-806	16.7	96
177	Methane Oxidation on [email protected] <sub>2</sub> /SiAl <sub>2</sub> O <sub>3</sub> Is Enhanced by Surface Reduction of ZrO <sub>2</sub> . <i>ACS Catalysis</i> , <b>2014</b> , 4, 3902-3909	13.1	96
176	Quasicrystalline nanocrystal superlattice with partial matching rules. <i>Nature Materials</i> , <b>2017</b> , 16, 214-219	27	96
175	Designing tripodal and triangular gadolinium oxide nanoplates and self-assembled nanofibrils as potential multimodal bioimaging probes. <i>ACS Nano</i> , <b>2013</b> , 7, 2850-9	16.7	93
174	Heterogeneous catalysts need not be so "heterogeneous": monodisperse Pt nanocrystals by combining shape-controlled synthesis and purification by colloidal recrystallization. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 2741-7	16.4	93
173	Expanding the spectral tunability of plasmonic resonances in doped metal-oxide nanocrystals through cooperative cation-anion codoping. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 11680-6	16.4	92
172	Engineering charge injection and charge transport for high performance PbSe nanocrystal thin film devices and circuits. <i>Nano Letters</i> , <b>2014</b> , 14, 6210-6	11.5	90
171	Binary and ternary superlattices self-assembled from colloidal nanodisks and nanorods. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 6662-9	16.4	89
170	Properties of CdSe nanocrystal dispersions in the dilute regime: Structure and interparticle interactions. <i>Physical Review B</i> , <b>1998</b> , 58, 7850-7863	3.3	89
169	Shape alloys of nanorods and nanospheres from self-assembly. <i>Nano Letters</i> , <b>2013</b> , 13, 4980-8	11.5	87
168	Engineering titania nanostructure to tune and improve its photocatalytic activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 3966-71	11.5	86

167	Emergence of complexity in hierarchically organized chiral particles. <i>Science</i> , <b>2020</b> , 368, 642-648	33.3	85
166	Dendritic upconverting nanoparticles enable in vivo multiphoton microscopy with low-power continuous wave sources. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 20826-31	11.5	85
165	Studies of liquid crystalline self-assembly of GdF <sub>3</sub> nanoplates by in-plane, out-of-plane SAXS. <i>ACS Nano</i> , <b>2011</b> , 5, 8322-30	16.7	79
164	Polymorphism in self-assembled AB <sub>6</sub> binary nanocrystal superlattices. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 2613-20	16.4	78
163	Enhanced charge transfer kinetics of CdSe quantum dot-sensitized solar cell by inorganic ligand exchange treatments. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 3721-8	9.5	76
162	Base metal-Pt alloys: A general route to high selectivity and stability in the production of biofuels from HMF. <i>Applied Catalysis B: Environmental</i> , <b>2016</b> , 199, 439-446	21.8	75
161	Chemically tailored dielectric-to-metal transition for the design of metamaterials from nanoimprinted colloidal nanocrystals. <i>Nano Letters</i> , <b>2013</b> , 13, 350-7	11.5	75
160	Bistable magnetoresistance switching in exchange-coupled CoFe <sub>2</sub> O <sub>4</sub> /Fe <sub>3</sub> O <sub>4</sub> binary nanocrystal superlattices by self-assembly and thermal annealing. <i>ACS Nano</i> , <b>2013</b> , 7, 1478-86	16.7	73
159	Multiscale periodic assembly of striped nanocrystal superlattice films on a liquid surface. <i>Nano Letters</i> , <b>2011</b> , 11, 841-6	11.5	73
158	Shape-directed binary assembly of anisotropic nanoplates: a nanocrystal puzzle with shape-complementary building blocks. <i>Nano Letters</i> , <b>2013</b> , 13, 2952-6	11.5	68
157	Crystalline, Shape, and Surface Anisotropy in Two Crystal Morphologies of Superparamagnetic Cobalt Nanoparticles by Ferromagnetic Resonance. <i>Journal of Physical Chemistry B</i> , <b>2001</b> , 105, 7913-7919	19.4	65
156	Unraveling the surface state and composition of highly selective nanocrystalline Ni <sub>3</sub> Ti alloy catalysts for hydrodeoxygenation of HMF. <i>Catalysis Science and Technology</i> , <b>2017</b> , 7, 1735-1743	5.5	64
155	High-temperature photoluminescence of CdSe/CdS core/shell nanoheterostructures. <i>ACS Nano</i> , <b>2014</b> , 8, 6466-74	16.7	63
154	Synthesis of 1,3-Diynes in the Purine, Pyrimidine, 1,3,5-Triazine and Acridine Series. <i>Tetrahedron</i> , <b>2000</b> , 56, 1233-1245	2.4	63
153	Seeded growth of metal-doped plasmonic oxide heterodimer nanocrystals and their chemical transformation. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 5106-15	16.4	60
152	Smectic Nanorod Superlattices Assembled on Liquid Subphases: Structure, Orientation, Defects, and Optical Polarization. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 2998-3008	9.6	59
151	. <i>IEEE Transactions on Power Electronics</i> , <b>2013</b> , 28, 4182-4201	7.2	59
150	Advanced Architecture for Colloidal PbS Quantum Dot Solar Cells Exploiting a CdSe Quantum Dot Buffer Layer. <i>ACS Nano</i> , <b>2016</b> , 10, 9267-9273	16.7	59

149	Comparison of HMF hydrodeoxygenation over different metal catalysts in a continuous flow reactor. <i>Applied Catalysis A: General</i> , <b>2015</b> , 508, 86-93	5.1	57
148	Interplay between spherical confinement and particle shape on the self-assembly of rounded cubes. <i>Nature Communications</i> , <b>2018</b> , 9, 2228	17.4	57
147	Large-Area Nanoimprinted Colloidal Au Nanocrystal-Based Nanoantennas for Ultrathin Polarizing Plasmonic Metasurfaces. <i>Nano Letters</i> , <b>2015</b> , 15, 5254-60	11.5	56
146	High-strength magnetically switchable plasmonic nanorods assembled from a binary nanocrystal mixture. <i>Nature Nanotechnology</i> , <b>2017</b> , 12, 228-232	28.7	56
145	Synergistic oxygen evolving activity of a TiO <sub>2</sub> -rich reconstructed SrTiO <sub>3</sub> (001) surface. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 2939-47	16.4	55
144	Nanocrystal Size-Dependent Efficiency of Quantum Dot Sensitized Solar Cells in the Strongly Coupled CdSe Nanocrystals/TiO <sub>2</sub> System. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 14692-700	9.5	54
143	Lifetime, mobility, and diffusion of photoexcited carriers in ligand-exchanged lead selenide nanocrystal films measured by time-resolved terahertz spectroscopy. <i>ACS Nano</i> , <b>2015</b> , 9, 1820-8	16.7	53
142	Temperature-tuning of near-infrared monodisperse quantum dot solids at 1.5 microm for controllable forster energy transfer. <i>Nano Letters</i> , <b>2008</b> , 8, 2006-11	11.5	53
141	Plasmon Resonances in Self-Assembled Two-Dimensional Au Nanocrystal Metamolecules. <i>ACS Nano</i> , <b>2017</b> , 11, 2917-2927	16.7	51
140	Generalized Synthetic Strategy for Transition-Metal-Doped Brookite-Phase TiO Nanorods. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 16548-16552	16.4	51
139	Report from the third workshop on future directions of solid-state chemistry: The status of solid-state chemistry and its impact in the physical sciences. <i>Progress in Solid State Chemistry</i> , <b>2008</b> , 36, 1-133	8	51
138	Alignment, Electronic Properties, Doping, and On-Chip Growth of Colloidal PbSe Nanowires. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 13244-13249	3.8	50
137	A comparison of furfural hydrodeoxygenation over Pt-Co and Ni-Fe catalysts at high and low H <sub>2</sub> pressures. <i>Catalysis Today</i> , <b>2018</b> , 302, 73-79	5.3	49
136	Gold nanorod translocations and charge measurement through solid-state nanopores. <i>Nano Letters</i> , <b>2014</b> , 14, 5358-64	11.5	48
135	In situ repair of high-performance, flexible nanocrystal electronics for large-area fabrication and operation in air. <i>ACS Nano</i> , <b>2013</b> , 7, 8275-83	16.7	48
134	Flexible, High-Speed CdSe Nanocrystal Integrated Circuits. <i>Nano Letters</i> , <b>2015</b> , 15, 7155-60	11.5	47
133	Protein-directed self-assembly of a fullerene crystal. <i>Nature Communications</i> , <b>2016</b> , 7, 11429	17.4	47
132	Coherent Acoustic Phonons in Colloidal Semiconductor Nanocrystal Superlattices. <i>ACS Nano</i> , <b>2016</b> , 10, 1163-9	16.7	47

131	Ultrafast electron trapping at the surface of semiconductor nanocrystals: excitonic and biexcitonic processes. <i>Journal of Physical Chemistry B</i> , <b>2013</b> , 117, 4412-21	3.4	47
130	Systematic electron crystallographic studies of self-assembled binary nanocrystal superlattices. <i>ACS Nano</i> , <b>2010</b> , 4, 2374-81	16.7	46
129	Favorable Core/Shell Interface within CoP/Pt Nanorods for Oxygen Reduction Electrocatalysis. <i>Nano Letters</i> , <b>2018</b> , 18, 7870-7875	11.5	46
128	Deposition of wafer-scale single-component and binary nanocrystal superlattice thin films via dip-coating. <i>Advanced Materials</i> , <b>2015</b> , 27, 2846-51	24	45
127	Probing the Fermi energy level and the density of states distribution in PbTe nanocrystal (quantum dot) solids by temperature-dependent thermopower measurements. <i>ACS Nano</i> , <b>2011</b> , 5, 4810-7	16.7	45
126	Enhanced thermal stability and magnetic properties in NaCl-type FePt-MnO binary nanocrystal superlattices. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 13296-9	16.4	45
125	Engineering Localized Surface Plasmon Interactions in Gold by Silicon Nanowire for Enhanced Heating and Photocatalysis. <i>Nano Letters</i> , <b>2017</b> , 17, 1839-1845	11.5	43
124	Low-frequency (1/f) noise in nanocrystal field-effect transistors. <i>ACS Nano</i> , <b>2014</b> , 8, 9664-72	16.7	43
123	Dendron-Mediated Engineering of Interparticle Separation and Self-Assembly in Dendronized Gold Nanoparticles Superlattices. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 10728-34	16.4	41
122	Synthesis of N-Type Plasmonic Oxide Nanocrystals and the Optical and Electrical Characterization of their Transparent Conducting Films. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 4579-4588	9.6	41
121	Solution-based stoichiometric control over charge transport in nanocrystalline CdSe devices. <i>ACS Nano</i> , <b>2013</b> , 7, 8760-70	16.7	41
120	Near-Infrared Absorption of Monodisperse Silver Telluride (Ag <sub>2</sub> Te) Nanocrystals and Photoconductive Response of Their Self-Assembled Superlattices. <i>Chemistry of Materials</i> , <b>2011</b> , 23, 4657-4659	9.6	41
119	Materials science. Watching nanocrystals grow. <i>Science</i> , <b>2009</b> , 324, 1276-7	33.3	41
118	Plasmonic Optical and Chiroptical Response of Self-Assembled Au Nanorod Equilateral Trimers. <i>ACS Nano</i> , <b>2019</b> , 13, 1617-1624	16.7	41
117	Tunable Optical Anisotropy of Seeded CdSe/CdS Nanorods. <i>Journal of Physical Chemistry Letters</i> , <b>2014</b> , 5, 85-91	6.4	40
116	Carrier distribution and dynamics of nanocrystal solids doped with artificial atoms. <i>Nano Letters</i> , <b>2010</b> , 10, 1842-7	11.5	40
115	The H <sub>2</sub> Pressure Dependence of Hydrodeoxygenation Selectivities for Furfural Over Pt/C Catalysts. <i>Catalysis Letters</i> , <b>2016</b> , 146, 711-717	2.8	39
114	Nanodisco balls: control over surface versus core loading of diagnostically active nanocrystals into polymer nanoparticles. <i>ACS Nano</i> , <b>2014</b> , 8, 9143-53	16.7	38

113	Hierarchical Materials Design by Pattern Transfer Printing of Self-Assembled Binary Nanocrystal Superlattices. <i>Nano Letters</i> , <b>2017</b> , 17, 1387-1394	11.5	37
112	Shape-Controlled Synthesis of Isotopic Yttrium-90-Labeled Rare Earth Fluoride Nanocrystals for Multimodal Imaging. <i>ACS Nano</i> , <b>2015</b> , 9, 8718-28	16.7	37
111	Preparation and Self-Assembly of Dendronized Janus FeO-Pt and FeO-Au Heterodimers. <i>ACS Nano</i> , <b>2017</b> , 11, 7958-7966	16.7	37
110	Three-dimensional self-assembly of chalcopyrite copper indium diselenide nanocrystals into oriented films. <i>ACS Nano</i> , <b>2013</b> , 7, 4307-15	16.7	37
109	Investigating the Phosphine Chemistry of Se Precursors for the Synthesis of PbSe Nanorods. <i>Chemistry of Materials</i> , <b>2011</b> , 23, 1825-1829	9.6	37
108	Increased carrier mobility and lifetime in CdSe quantum dot thin films through surface trap passivation and doping. <i>Journal of Physical Chemistry Letters</i> , <b>2015</b> , 6, 4605-9	6.4	36
107	Quantifying "Softness" of Organic Coatings on Gold Nanoparticles Using Correlated Small-Angle X-ray and Neutron Scattering. <i>Nano Letters</i> , <b>2015</b> , 15, 8008-12	11.5	34
106	Size- and composition-dependent radio frequency magnetic permeability of iron oxide nanocrystals. <i>ACS Nano</i> , <b>2014</b> , 8, 12323-37	16.7	34
105	Probing the Structure, Composition, and Spatial Distribution of Ligands on Gold Nanorods. <i>Nano Letters</i> , <b>2015</b> , 15, 5730-8	11.5	33
104	Synthesis and Size-Selective Precipitation of Monodisperse Nonstoichiometric $MxFe_3O_4$ (M = Mn, Co) Nanocrystals and Their DC and AC Magnetic Properties. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 480-489	9.6	33
103	Air-stable, nanostructured electronic and plasmonic materials from solution-processable, silver nanocrystal building blocks. <i>ACS Nano</i> , <b>2014</b> , 8, 2746-54	16.7	33
102	A Study of Tetrahydrofurfuryl Alcohol to 1,5-Pentanediol Over Pt/WO <sub>x</sub> /C. <i>Catalysis Letters</i> , <b>2018</b> , 148, 1047-1054	2.8	32
101	Magnetic anisotropy considerations in magnetic force microscopy studies of single superparamagnetic nanoparticles. <i>Nanotechnology</i> , <b>2012</b> , 23, 495704	3.4	32
100	Spectrally-Resolved Dielectric Functions of Solution-Cast Quantum Dot Thin Films. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 6463-6469	9.6	29
99	Ambipolar and unipolar PbSe nanowire field-effect transistors. <i>ACS Nano</i> , <b>2011</b> , 5, 3230-6	16.7	29
98	Electric Fields on Oxidized Silicon Surfaces: Static Polarization of PbSe Nanocrystals. <i>Journal of Physical Chemistry A</i> , <b>2004</b> , 108, 7814-7819	2.8	29
97	Selective p- and n-Doping of Colloidal PbSe Nanowires To Construct Electronic and Optoelectronic Devices. <i>ACS Nano</i> , <b>2015</b> , 9, 7536-44	16.7	28
96	Effects of Post-Synthesis Processing on CdSe Nanocrystals and Their Solids: Correlation between Surface Chemistry and Optoelectronic Properties. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 27097-27105	3.8	28

95	Revealing particle growth mechanisms by combining high-surface-area catalysts made with monodisperse particles and electron microscopy conducted at atmospheric pressure. <i>Journal of Catalysis</i> , <b>2016</b> , 337, 240-247	7.3	28
94	Improved Models for Metallic Nanoparticle Cores from Atomic Pair Distribution Function (PDF) Analysis. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 29498-29506	3.8	28
93	Supported platinum/zinc oxide core/shell nanoparticle catalysts for methanol steam reforming. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 19509-19514	13	27
92	Mineralizer-Assisted Shape-Control of Rare Earth Oxide Nanoplates. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 6328-6332	9.6	27
91	Characterization of Shape and Monodispersity of Anisotropic Nanocrystals through Atomistic X-ray Scattering Simulation. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 2502-2506	9.6	25
90	Fast Nanorod Diffusion through Entangled Polymer Melts. <i>ACS Macro Letters</i> , <b>2015</b> , 4, 952-956	6.6	25
89	Gold nanorod length controls dispersion, local ordering, and optical absorption in polymer nanocomposite films. <i>Soft Matter</i> , <b>2014</b> , 10, 3404-13	3.6	25
88	Gate-induced carrier delocalization in quantum dot field effect transistors. <i>Nano Letters</i> , <b>2014</b> , 14, 5948-525	5.2	25
87	Design, Self-Assembly, and Switchable Wettability in Hydrophobic, Hydrophilic, and Janus Dendritic Ligand-Gold Nanoparticle Hybrid Materials. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 8737-8746	9.6	25
86	Nanoimprinted Chiral Plasmonic Substrates with Three-Dimensional Nanostructures. <i>Nano Letters</i> , <b>2018</b> , 18, 7389-7394	11.5	25
85	Tuning the Electrocatalytic Oxygen Reduction Reaction Activity of Pt-Co Nanocrystals by Cobalt Concentration with Atomic-Scale Understanding. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 26789-26797	9.5	24
84	Rapid Large-Scale Assembly and Pattern Transfer of One-Dimensional Gold Nanorod Superstructures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 25513-25521	9.5	24
83	Functionalizing molecular wires: a tunable class of $\mu$ -diphenyl- $\mu$ -dicyano-oligoenes. <i>Chemical Science</i> , <b>2012</b> , 3, 1007	9.4	24
82	Uniform Bimetallic Nanocrystals by High-Temperature Seed-Mediated Colloidal Synthesis and Their Catalytic Properties for Semiconducting Nanowire Growth. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 5833-5838	9.6	23
81	Bulk metallic glass-like scattering signal in small metallic nanoparticles. <i>ACS Nano</i> , <b>2014</b> , 8, 6163-70	16.7	23
80	Angular measurements of the dynein ring reveal a stepping mechanism dependent on a flexible stalk. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, E4564-E4573	11.5	22
79	Thermal and photochemical reactions of methanol on nanocrystalline anatase TiO <sub>2</sub> thin films. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 17190-201	3.6	22
78	Interpreting the Energy-Dependent Anisotropy of Colloidal Nanorods Using Ensemble and Single-Particle Spectroscopy. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 23928-23937	3.8	22

77	Enhanced energy transfer in quasi-quaternary nanocrystal superlattices. <i>Advanced Materials</i> , <b>2014</b> , 26, 2419-23	24	21
76	Microreactor Chemical Bath Deposition of Laterally Graded Cd <sub>1-x</sub> Zn <sub>x</sub> S Thin Films: A Route to High-Throughput Optimization for Photovoltaic Buffer Layers. <i>Chemistry of Materials</i> , <b>2013</b> , 25, 297-306 <sup>9.6</sup>	9.6	21
75	Thermal and Photocatalytic Reactions of Methanol and Acetaldehyde on Pt-Modified Brookite TiO <sub>2</sub> Nanorods. <i>ACS Catalysis</i> , <b>2018</b> , 8, 11834-11846	13.1	21
74	General Synthetic Route to High-Quality Colloidal III-V Semiconductor Quantum Dots Based on Pnictogen Chlorides. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 15145-15152	16.4	20
73	Nanocrystal Core Size and Shape Substitutional Doping and Underlying Crystalline Order in Nanocrystal Superlattices. <i>ACS Nano</i> , <b>2019</b> , 13, 5712-5719	16.7	20
72	Shape-dependence of the thermal and photochemical reactions of methanol on nanocrystalline anatase TiO <sub>2</sub> . <i>Surface Science</i> , <b>2016</b> , 654, 1-7	1.8	20
71	Plasmonic-Based Mechanochromic Microcapsules as Strain Sensors. <i>Small</i> , <b>2017</b> , 13, 1701925	11	20
70	Binary icosahedral clusters of hard spheres in spherical confinement. <i>Nature Physics</i> , <b>2021</b> , 17, 128-134	16.2	20
69	Air-Stable CuInSe Nanocrystal Transistors and Circuits via Post-Deposition Cation Exchange. <i>ACS Nano</i> , <b>2019</b> , 13, 2324-2333	16.7	19
68	X-ray mapping of nanoparticle superlattice thin films. <i>ACS Nano</i> , <b>2014</b> , 8, 12843-50	16.7	18
67	Far-infrared absorption of PbSe nanorods. <i>Nano Letters</i> , <b>2011</b> , 11, 2786-90	11.5	18
66	Engineering uniform nanocrystals: Mechanism of formation and self-assembly into bimetallic nanocrystal superlattices. <i>AIChE Journal</i> , <b>2016</b> , 62, 392-398	3.6	18
65	Thermal and Photochemical Reactions of Methanol, Acetaldehyde, and Acetic Acid on Brookite TiO <sub>2</sub> Nanorods. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 11488-11498	3.8	17
64	Ultrafast Photoluminescence from the Core and the Shell in CdSe/CdS Dot-in-Rod Heterostructures. <i>ChemPhysChem</i> , <b>2016</b> , 17, 759-65	3.2	17
63	Cluster-mining: an approach for determining core structures of metallic nanoparticles from atomic pair distribution function data. <i>Acta Crystallographica Section A: Foundations and Advances</i> , <b>2020</b> , 76, 24-31	1.7	17
62	Polycatenar Ligand Control of the Synthesis and Self-Assembly of Colloidal Nanocrystals. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 10508-15	16.4	17
61	Alignment of Nanoplates in Lamellar Diblock Copolymer Domains and the Effect of Particle Volume Fraction on Phase Behavior. <i>ACS Macro Letters</i> , <b>2018</b> , 7, 1400-1407	6.6	17
60	Effect of Ni particle size on the production of renewable methane from CO <sub>2</sub> over Ni/CeO <sub>2</sub> catalyst. <i>Journal of Energy Chemistry</i> , <b>2021</b> , 61, 602-611	12	17

59	Charge Transport Modulation in PbSe Nanocrystal Solids by Au Ag Nanoparticle Doping. <i>ACS Nano</i> , <b>2018</b> , 12, 9091-9100	16.7	16
58	Phase Behavior of Grafted Polymer Nanocomposites from Field-Based Simulations. <i>Macromolecules</i> , <b>2019</b> , 52, 5110-5121	5.5	16
57	Ligand coupling symmetry correlates with thermopower enhancement in small-molecule/nanocrystal hybrid materials. <i>ACS Nano</i> , <b>2014</b> , 8, 10528-36	16.7	16
56	The effects of inorganic surface treatments on photogenerated carrier mobility and lifetime in PbSe quantum dot thin films. <i>Chemical Physics</i> , <b>2016</b> , 471, 81-88	2.3	15
55	Dendronization-induced phase-transfer, stabilization and self-assembly of large colloidal Au nanoparticles. <i>Nanoscale</i> , <b>2016</b> , 8, 13192-8	7.7	15
54	Coating Evaluation and Purification of Monodisperse, Water-Soluble, Magnetic Nanoparticles Using Sucrose Density Gradient Ultracentrifugation. <i>Chemistry of Materials</i> , <b>2012</b> , 24, 4008-4010	9.6	15
53	NeutrAvidin Functionalization of CdSe/CdS Quantum Nanorods and Quantification of Biotin Binding Sites using Biotin-4-Fluorescein Fluorescence Quenching. <i>Bioconjugate Chemistry</i> , <b>2016</b> , 27, 562-8	6.3	14
52	Ultrafast electron trapping in ligand-exchanged quantum dot assemblies. <i>ACS Nano</i> , <b>2015</b> , 9, 1440-7	16.7	14
51	Synthesis and Oxygen Storage Capacity of Two-Dimensional Ceria Nanocrystals. <i>Angewandte Chemie</i> , <b>2011</b> , 123, 4470-4473	3.6	14
50	Directional Carrier Transfer in Strongly Coupled Binary Nanocrystal Superlattice Films Formed by Assembly and in Situ Ligand Exchange at a Liquid/Air Interface. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 4146-4157	3.8	13
49	Au@TiO <sub>2</sub> Core/Shell Nanostructures with High Thermal Stability. <i>Catalysis Letters</i> , <b>2014</b> , 144, 1939-1945	2.8	13
48	Anisotropic Cracking of Nanocrystal Superlattices. <i>Nano Letters</i> , <b>2017</b> , 17, 6501-6506	11.5	13
47	Simultaneous Photonic and Excitonic Coupling in Spherical Quantum Dot Supercrystals. <i>ACS Nano</i> , <b>2020</b> , 14, 13806-13815	16.7	13
46	Favoring the Growth of High-Quality, Three-Dimensional Supercrystals of Nanocrystals. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 11256-11264	3.8	12
45	A Characterization Study of Reactive Sites in ALD-Synthesized WO <sub>x</sub> /ZrO <sub>2</sub> Catalysts. <i>Catalysts</i> , <b>2018</b> , 8, 292	4	12
44	Improved Chemical and Colloidal Stability of Gold Nanoparticles through Dendron Capping. <i>Langmuir</i> , <b>2018</b> , 34, 13333-13338	4	12
43	3D Nanofabrication via Chemo-Mechanical Transformation of Nanocrystal/Bulk Heterostructures. <i>Advanced Materials</i> , <b>2018</b> , 30, e1800233	24	11
42	Synthesis and Optical Characterization of Polydiacetylenes Containing Carboxylic Acid, Carbamate, Phosphonium, and Quaternary Ammonium Functionalities. <i>Macromolecules</i> , <b>1996</b> , 29, 6365-6370	5.5	11

41	Statistical Description of CdSe/CdS Dot-in-Rod Heterostructures Using Scanning Transmission Electron Microscopy. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 3345-3351	9.6	11
40	Unusual Dinitrogen Binding and Electron Storage in Dinuclear Iron Complexes. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 8147-8159	16.4	10
39	Nanorod Mobility Influences Polymer Diffusion in Polymer Nanocomposites. <i>ACS Macro Letters</i> , <b>2017</b> , 6, 869-874	6.6	10
38	Synthesis and nonlinear optical properties of functionalised polydiacetylenes and their complexes with transition metals. <i>Journal of Materials Chemistry</i> , <b>1999</b> , 9, 1251-1256		10
37	Chemo- and Thermomechanically Configurable 3D Optical Metamaterials Constructed from Colloidal Nanocrystal Assemblies. <i>ACS Nano</i> , <b>2020</b> , 14, 1427-1435	16.7	10
36	Dendrimer Ligand Directed Nanoplate Assembly. <i>ACS Nano</i> , <b>2019</b> , 13, 14241-14251	16.7	10
35	Alternate current magnetic property characterization of nonstoichiometric zinc ferrite nanocrystals for inductor fabrication via a solution based process. <i>Journal of Applied Physics</i> , <b>2016</b> , 119, 113901	2.5	9
34	Spectroscopic characterization of a highly selective NiCu <sub>3</sub> /C hydrodeoxygenation catalyst. <i>Catalysis Science and Technology</i> , <b>2018</b> , 8, 6100-6108	5.5	9
33	Gaussian processes for autonomous data acquisition at large-scale synchrotron and neutron facilities. <i>Nature Reviews Physics</i> , <b>2021</b> , 3, 685-697	23.6	9
32	Structure determination and modeling of monoclinic trioctylphosphine oxide. <i>Acta Crystallographica Section C, Structural Chemistry</i> , <b>2015</b> , 71, 239-41	0.8	8
31	Rare-Earth Sulfide Nanocrystals from Wet Colloidal Synthesis: Tunable Compositions, Size-Dependent Light Absorption, and Sensitized Rare-Earth Luminescence. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 3300-3305	16.4	8
30	The Influence of Surface Platinum Deposits on the Photocatalytic Activity of Anatase TiO <sub>2</sub> Nanocrystals. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 10477-10486	3.8	7
29	Nanoparticle diffusion during gelation of tetra poly(ethylene glycol) provides insight into nanoscale structural evolution. <i>Soft Matter</i> , <b>2020</b> , 16, 2256-2265	3.6	7
28	A comparison of hierarchical Pt@CeO <sub>2</sub> /SiAl <sub>2</sub> O <sub>3</sub> and Pd@CeO <sub>2</sub> /SiAl <sub>2</sub> O <sub>3</sub> . <i>Catalysis Today</i> , <b>2015</b> , 253, 137-141	5.3	7
27	Structural and Valence State Modification of Cobalt in CoPt Nanocatalysts in Redox Conditions. <i>ACS Nano</i> , <b>2021</b> ,	16.7	7
26	The dendritic effect and magnetic permeability in dendron coated nickel and manganese zinc ferrite nanoparticles. <i>Nanoscale</i> , <b>2017</b> , 9, 13922-13928	7.7	6
25	Enhanced Carrier Transport in Strongly Coupled, Epitaxially Fused CdSe Nanocrystal Solids. <i>Nano Letters</i> , <b>2021</b> , 21, 3318-3324	11.5	6
24	A semi-combinatorial approach for investigating polycatenar ligand-controlled synthesis of rare-earth fluoride nanocrystals. <i>Nanoscale</i> , <b>2017</b> , 9, 8107-8112	7.7	5

23	Nanorod position and orientation in vertical cylinder block copolymer films. <i>Soft Matter</i> , <b>2020</b> , 16, 3005-3014	3.6	5
22	Anisotropic nanocrystal shape and ligand design for co-assembly. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	5
21	Experiments and Simulations Probing Local Domain Bulge and String Assembly of Aligned Nanoplates in a Lamellar Diblock Copolymer. <i>Macromolecules</i> , <b>2019</b> , 52, 8989-8999	5.5	5
20	Grafted Nanoparticle Surface Wetting during Phase Separation in Polymer Nanocomposite Films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 37628-37637	9.5	5
19	Plasmonic Elastic Capsules as Colorimetric Reversible pH-Microsensors. <i>Small</i> , <b>2020</b> , 16, e1903897	11	4
18	Dynamical Change of Valence States and Structure in NiCu <sub>3</sub> Nanoparticles during Redox Cycling. <i>Journal of Physical Chemistry C</i> , <b>2022</b> , 126, 1991-2002	3.8	4
17	In Situ EXAFS-Based Nanothermometry of Heterodimer Nanocrystals under Induction Heating. <i>Journal of Physical Chemistry C</i> ,	3.8	4
16	Distinguishing Electron and Hole Dynamics in Functionalized CdSe/CdS Core/Shell Quantum Dots Using Complementary Ultrafast Spectroscopies and Kinetic Modeling. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 31-41	3.8	4
15	Broadband Circular Polarizers via Coupling in 3D Plasmonic Meta-Atom Arrays. <i>ACS Photonics</i> , <b>2021</b> , 8, 1286-1292	6.3	4
14	Morphological Dependence of the Thermal and Photochemical Reactions of Acetaldehyde on Anatase TiO <sub>2</sub> Nanocrystals. <i>Topics in Catalysis</i> , <b>2018</b> , 61, 365-378	2.3	4
13	Efficient photoluminescence of isotropic rare-earth oxychloride nanocrystals from a solvothermal route. <i>Chemical Communications</i> , <b>2020</b> , 56, 3429-3432	5.8	3
12	Quantitative 3D real-space analysis of Laves phase supraparticles. <i>Nature Communications</i> , <b>2021</b> , 12, 3980	17.4	3
11	Monodisperse Nanocrystal Superparticles through a Source-Sink Emulsion System. <i>Chemistry of Materials</i> , <b>2022</b> , 34, 2779-2789	9.6	3
10	Engineering the composition of bimetallic nanocrystals to improve hydrodeoxygenation selectivity for 2-acetylfuran. <i>Applied Catalysis A: General</i> , <b>2020</b> , 606, 117808	5.1	2
9	Electron accepting naphthalene bisimide ligand architectures for modulation of π-stacking in nanocrystal hybrid materials. <i>Nanoscale Horizons</i> , <b>2020</b> , 5, 1509-1514	10.8	2
8	Tunable Plasmonic Microcapsules with Embedded Noble Metal Nanoparticles for Optical Microsensing. <i>ACS Applied Nano Materials</i> ,	5.6	1
7	Impurities in Nanocrystal Thin-Film Transistors Fabricated by Cation Exchange. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 6514-6518	6.4	1
6	Evaporation-Driven Coassembly of Hierarchical, Multicomponent Networks.. <i>ACS Nano</i> , <b>2022</b> ,	16.7	1

5	Dynamic magnetic field alignment and polarized emission of semiconductor nanoplatelets in a liquid crystal polymer.. <i>Nature Communications</i> , <b>2022</b> , 13, 2507	17.4	1
4	Electrochemically deposited molybdenum disulfide surfaces enable polymer adsorption studies using quartz crystal microbalance with dissipation monitoring (QCM-D).. <i>Journal of Colloid and Interface Science</i> , <b>2022</b> , 614, 522-531	9.3	0
3	Nanocrystal Superparticles with Whispering-Gallery Modes Tunable through Chemical and Optical Triggers. <i>Nano Letters</i> ,	11.5	0
2	In-situ Study of Coarsening Mechanisms of Supported Metal Particles in Reducing Gas. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 643-644	0.5	
1	Self-assembled Supraparticles by Spherical Confinement <b>2016</b> , 115-116		