James R Mcbride

List of Publications by Year
in descending order

95 papers	7,009 citations	66343 42 h-index	56724 83 g-index
99 all docs	99 docs citations	99 times ranked	9927 citing authors

#	Article	IF	Citations
1	Fluorescent Colloidal Ferroelectric Nanocrystals. Journal of the American Chemical Society, 2022, 144, 1509-1512.	13.7	1
2	Ultrafast spectroscopy studies of carrier dynamics in semiconductor nanocrystals. IScience, 2022, 25, 103831.	4.1	5
3	Ultrafast and Long-Lived Transient Heating of Surface Adsorbates on Plasmonic Semiconductor Nanocrystals. Nano Letters, 2021, 21, 453-461.	9.1	23
4	Highly Efficient Plasmon Induced Hot-Electron Transfer at Ag/TiO₂ Interface. ACS Photonics, 2021, 8, 1497-1504.	6.6	30
5	Examining the Effect of Dopant Ionic Radius on Plasmonic M:ZnO Nanocrystals (M = Al³⁺,) Tj ETQq1 1 0.784314 rgBT /Ove	3.1	14
6	Harvesting Sub-Bandgap IR Photons by Photothermionic Hot Electron Transfer in a Plasmonic pâ€“n Junction. Nano Letters, 2021, 21, 4036-4043.	9.1	20
7	Lowâ€Threshold Lasing from Copperâ€Doped CdSe Colloidal Quantum Wells. Laser and Photonics Reviews, 2021, 15, 2100034.	8.7	18
8	Bidirectional Modulation of Contact Thermal Resistance between Boron Nitride Nanotubes from a Polymer Interlayer. Nano Letters, 2021, 21, 7317-7324.	9.1	14
9	A stable dye-sensitized photoelectrosynthesis cell mediated by a NiO overlayer for water oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12564-12571.	7.1	32
10	Ligand-conjugated quantum dots for fast sub-diffraction protein tracking in acute brain slices. Biomaterials Science, 2020, 8, 837-845.	5.4	15
11	Tuning Composition of Polymer and Porous Silicon Composite Nanoparticles for Early Endosome Escape of Anti-microRNA Peptide Nucleic Acids. ACS Applied Materials & Interfaces, 2020, 12, 39602-39611.	8.0	15
12	Effect of indium alloying on the charge carrier dynamics of thick-shell InP/ZnSe quantum dots. Journal of Chemical Physics, 2020, 152, 161104.	3.0	16
13	Surface passivation extends single and biexciton lifetimes of InP quantum dots. Chemical Science, 2020, 11, 5779-5789.	7.4	47
14	Role of shell composition and morphology in achieving single-emitter photostability for green-emitting â€œgiantâ€• quantum dots. Journal of Chemical Physics, 2020, 152, 124713.	3.0	20
15	Ratcheting quasi-ballistic electrons in silicon geometric diodes at room temperature. Science, 2020, 368, 177-180.	12.6	22
16	Real colloidal quantum dot structures revealed by high resolution analytical electron microscopy. Journal of Chemical Physics, 2019, 151, 160903.	3.0	8
17	Bright Cool White Emission from Ultrasmall CdSe Quantum Dots. Chemistry of Materials, 2019, 31, 8558-8562.	6.7	22
18	Modulating Ferroelectric Response in Colloidal Semiconductor Nanocrystals through Cation Exchange. Chemistry of Materials, 2019, 31, 4275-4281.	6.7	3

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19	Structureâ€“Function Correlation: Engineering High Quantum Yields in Down-Shifting Nanophosphors. Journal of the American Chemical Society, 2019, 141, 20416-20423.	13.7	14
20	Breaking Latvaâ€™s Rule by Energy Hopping in a Tb(III):ZnAl₂O₄ Nanospinel. Journal of Physical Chemistry C, 2019, 123, 31175-31182.	3.1	13
21	Nondestructive Evaluation and Detection of Defects in 3D Printed Materials Using the Optical Properties of Gold Nanoparticles. ACS Applied Nano Materials, 2018, 1, 1377-1384.	5.0	10
22	Chemical Structure, Ensemble and Single-Particle Spectroscopy of Thick-Shell InPâ€“ZnSe Quantum Dots. Nano Letters, 2018, 18, 709-716.	9.1	76
23	Effect of Material Structure on Photoluminescence of ZnO/MgO Coreâ€Shell Nanowires. ChemNanoMat, 2018, 4, 291-300.	2.8	5
24	Understanding the Journey of Dopant Copper Ions in Atomically Flat Colloidal Nanocrystals of CdSe Nanoplatelets Using Partial Cation Exchange Reactions. Chemistry of Materials, 2018, 30, 3265-3275.	6.7	51
25	Photophysics of Thermally-Assisted Photobleaching in â€œGiantâ€•Quantum Dots Revealed in Single Nanocrystals. ACS Nano, 2018, 12, 4206-4217.	14.6	31
26	Transformation of the Anion Sublattice in the Cation-Exchange Synthesis of Au2S from Cu2â€“xS Nanocrystals. Chemistry of Materials, 2018, 30, 8843-8851.	6.7	17
27	Role of Surface Morphology on Exciton Recombination in Single Quantum Dot-in-Rods Revealed by Optical and Atomic Structure Correlation. ACS Nano, 2018, 12, 11434-11445.	14.6	16
28	Synthesis of FeS₂â€“CoS₂ Coreâ€“Frame and Coreâ€“Shell Hybrid Nanocubes. Chemistry of Materials, 2018, 30, 8121-8125.	6.7	17
29	Incorporation of fluorescent quantum dots for 3D printing and additive manufacturing applications. Journal of Materials Chemistry C, 2018, 6, 7584-7593.	5.5	28
30	Two-Dimensional Morphology Enhances Light-Driven H₂ Generation Efficiency in CdS Nanoplatelet-Pt Heterostructures. Journal of the American Chemical Society, 2018, 140, 11726-11734.	13.7	106
31	Low Threshold Multiexciton Optical Gain in Colloidal CdSe/CdTe Core/Crown Type-II Nanoplatelet Heterostructures. ACS Nano, 2017, 11, 2545-2553.	14.6	65
32	Nearâ€Unity Emitting Copperâ€Doped Colloidal Semiconductor Quantum Wells for Luminescent Solar Concentrators. Advanced Materials, 2017, 29, 1700821.	21.0	133
33	Designing Morphology in Epitaxial Silicon Nanowires: The Role of Gold, Surface Chemistry, and Phosphorus Doping. ACS Nano, 2017, 11, 4453-4462.	14.6	46
34	Continuous-wave lasing in colloidal quantum dot solids enabled by facet-selective epitaxy. Nature, 2017, 544, 75-79.	27.8	319
35	Efficient Diffusive Transport of Hot and Cold Excitons in Colloidal Type II CdSe/CdTe Core/Crown Nanoplatelet Heterostructures. ACS Energy Letters, 2017, 2, 174-181.	17.4	37
36	Electrocatalytic Activity and Stability Enhancement through Preferential Deposition of Phosphide on Carbide. ChemCatChem, 2017, 9, 1054-1061.	3.7	11

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37	Self-Catalyzed Vaporâ€“Liquidâ€“Solid Growth of Lead Halide Nanowires and Conversion to Hybrid Perovskites. Nano Letters, 2017, 17, 7561-7568.	9.1	37
38	Barrierless Switching between a Liquid and Superheated Solid Catalyst during Nanowire Growth. Journal of Physical Chemistry Letters, 2016, 7, 4236-4242.	4.6	7
39	Capillarity-Driven Welding of Semiconductor Nanowires for Crystalline and Electrically Ohmic Junctions. Nano Letters, 2016, 16, 5241-5246.	9.1	36
40	Interplay of structural and compositional effects on carrier recombination in mixed-halide perovskites. RSC Advances, 2016, 6, 86947-86954.	3.6	20
41	Visualization of Current and Mapping of Elements in Quantum Dot Solar Cells. Advanced Functional Materials, 2016, 26, 895-902.	14.9	3
42	Site-Selective Passivation of Defects in NiO Solar Photocathodes by Targeted Atomic Deposition. ACS Applied Materials & Interfaces, 2016, 8, 4754-4761.	8.0	71
43	Size-Independent Exciton Localization Efficiency in Colloidal CdSe/CdS Core/Crown Nanosheet Type-I Heterostructures. ACS Nano, 2016, 10, 3843-3851.	14.6	70
44	Quantum Yield Heterogeneity among Single Nonblinking Quantum Dots Revealed by Atomic Structure-Quantum Optics Correlation. ACS Nano, 2016, 10, 1960-1968.	14.6	50
45	Quasi-type II CuInS₂/CdS core/shell quantum dots. Chemical Science, 2016, 7, 1238-1244.	7.4	49
46	Reviewâ€"Quantum Dots and Their Application in Lighting, Displays, and Biology. ECS Journal of Solid State Science and Technology, 2016, 5, R3019-R3031.	1.8	88
47	Has the Sun Set on Quantum Dot-Sensitized Solar Cells?. Nanomaterials and Nanotechnology, 2015, 5, 16.	3.0	0
48	Efficient and Ultrafast Formation of Long-Lived Charge-Transfer Exciton State in Atomically Thin Cadmium Selenide/Cadmium Telluride Type-II Heteronanosheets. ACS Nano, 2015, 9, 961-968.	14.6	106
49	Ferroelectric Particles Generated through a Simple, Room-Temperature Treatment of CdSe Quantum Dots. Chemistry of Materials, 2015, 27, 3817-3820.	6.7	5
50	Efficient hot-electron transfer by a plasmon-induced interfacial charge-transfer transition. Science, 2015, 349, 632-635.	12.6	951
51	Universal Length Dependence of Rod-to-Seed Exciton Localization Efficiency in Type I and Quasi-Type II CdSe@CdS Nanorods. ACS Nano, 2015, 9, 4591-4599.	14.6	92
52	Eu³⁺-Doped ZnB₂O₄ (B = Al³⁺, Ga³⁺) Nanospinels: An Efficient Red Phosphor. Chemistry of Materials, 2015, 27, 8362-8374.	6.7	54
53	Correlation of Atomic Structure and Photoluminescence of the Same Quantum Dot: Pinpointing Surface and Internal Defects That Inhibit Photoluminescence. ACS Nano, 2015, 9, 831-839.	14.6	57
54	Plasmonic Cu_{<i>x</i>}In_{<i>y</i>}S₂ Quantum Dots Make Better Photovoltaics Than Their Nonplasmonic Counterparts. Nano Letters, 2014, 14, 3262-3269.	9.1	65

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55	Encoding Abrupt and Uniform Dopant Profiles in Vaporâ€"Liquidâ€"Solid Nanowires by Suppressing the Reservoir Effect of the Liquid Catalyst. ACS Nano, 2014, 8, 11790-11798.	14.6	46
56	Elimination of Holeâ€"Surface Overlap in Graded CdS_{<i>x</i>}Se_{1â€"<i>x</i>} Nanocrystals Revealed by Ultrafast Fluorescence Upconversion Spectroscopy. ACS Nano, 2014, 8, 10665-10673.	14.6	61
57	Surface-plasmon mediated photoluminescence from Ag-coated ZnO/MgO coreâ€"shell nanowires. Thin Solid Films, 2014, 553, 132-137.	1.8	11
58	Whereâ€™s the Silver? Imaging Trace Silver Coverage on the Surface of Gold Nanorods. Journal of the American Chemical Society, 2014, 136, 5261-5263.	13.7	74
59	The Possibility and Implications of Dynamic Nanoparticle Surfaces. ACS Nano, 2013, 7, 8358-8365.	14.6	44
60	Multifunctional nanobeacon for imaging Thomsenâ€Friedenreich antigenâ€associated colorectal cancer. International Journal of Cancer, 2013, 132, 2107-2117.	5.1	18
61	Synthesis of Ultrasmall and Magic-Sized CdSe Nanocrystals. Chemistry of Materials, 2013, 25, 1199-1210.	6.7	120
62	Confirmation of disordered structure of ultrasmall CdSe nanoparticles from X-ray atomic pair distribution function analysis. Physical Chemistry Chemical Physics, 2013, 15, 8480.	2.8	71
63	Novel Synthesis of Chalcopyrite Cu_{<i>x</i>}In_{<i>y</i>}S₂ Quantum Dots with Tunable Localized Surface Plasmon Resonances. Chemistry of Materials, 2012, 24, 3294-3298.	6.7	73
64	Remarkable optical and magnetic properties of ultra-thin europium oxysulfide nanorods. Journal of Materials Chemistry, 2012, 22, 16728.	6.7	33
65	Bright White Light Emission from Ultrasmall Cadmium Selenide Nanocrystals. Journal of the American Chemical Society, 2012, 134, 8006-8009.	13.7	135
66	Dynamic Fluctuations in Ultrasmall Nanocrystals Induce White Light Emission. Nano Letters, 2012, 12, 3038-3042.	9.1	95
67	Ligand-mediated shape control in the solvothermal synthesis of titanium dioxide nanospheres, nanorods and nanowires. Nanoscale, 2011, 3, 3799.	5.6	16
68	Biocompatible Quantum Dots for Biological Applications. Chemistry and Biology, 2011, 18, 10-24.	6.0	476
69	Synthesis of Magic-Sized CdSe and CdTe Nanocrystals with Diisooctylphosphinic Acid. Chemistry of Materials, 2010, 22, 6402-6408.	6.7	97
70	Facile route to SnS nanocrystals and their characterization. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 170, 117-122.	3.5	23
71	On ultrasmall nanocrystals. Chemical Physics Letters, 2010, 498, 1-9.	2.6	71
72	Luminescent Quantum Dots. ECS Transactions, 2010, 33, 3-16.	0.5	3

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73	Putting the squeeze on nanocrystals. Nature Nanotechnology, 2009, 4, 16-17.	31.5	3
74	Control of Surface State Emission via Phosphonic Acid Modulation in Ultrasmall CdSe Nanocrystals: The Role of Ligand Electronegativity. Journal of Physical Chemistry C, 2009, 113, 8169-8176.	3.1	66
75	Few-Layer Graphene as a Support Film for Transmission Electron Microscopy Imaging of Nanoparticles. ACS Applied Materials & Interfaces, 2009, 1, 2886-2892.	8.0	28
76	Structure and Ultrafast Dynamics of White-Light-Emitting CdSe Nanocrystals. Journal of the American Chemical Society, 2009, 131, 5730-5731.	13.7	91
77	Synthesis and characterization of porous TiO2 with wormhole-like framework structure. Journal of Porous Materials, 2008, 15, 21-27.	2.6	10
78	Band Edge Dynamics in CdSe Nanocrystals Observed by Ultrafast Fluorescence Upconversion. Journal of Physical Chemistry C, 2008, 112, 436-442.	3.1	32
79	Band Edge Recombination in CdSe, CdS and CdS_{<i>x</i>}Se_{1âˆ’<i>x</i>} Alloy Nanocrystals Observed by Ultrafast Fluorescence Upconversion: The Effect of Surface Trap States. Journal of Physical Chemistry C, 2008, 112, 12736-12746.	3.1	79
80	Pinned emission from ultrasmall cadmium selenide nanocrystals. Journal of Chemical Physics, 2008, 129, 121102.	3.0	38
81	Effects of surface passivation on the exciton dynamics of CdSe nanocrystals as observed by ultrafast fluorescence upconversion spectroscopy. Journal of Chemical Physics, 2008, 128, 084713.	3.0	45
82	Aberration-Corrected Z-Contrast STEM. , 2008, , 1-21.		0
83	PbS/PbSe structures with coreâ€“shell type morphology synthesized from PbS nanocrystals. Nanotechnology, 2007, 18, 495607.	2.6	13
84	Synthesis, surface studies, composition and structural characterization of CdSe, core/shell and biologically active nanocrystals. Surface Science Reports, 2007, 62, 111-157.	7.2	205
85	Synthesis of SnS nanocrystals by the solvothermal decomposition of a single source precursor. Nanoscale Research Letters, 2007, 2, 144-148.	5.7	68
86	Structural Basis for Near Unity Quantum Yield Core/Shell Nanostructures. Nano Letters, 2006, 6, 1496-1501.	9.1	210
87	Homogeneously Alloyed CdSxSe1-xNanocrystals:Â Synthesis, Characterization, and Composition/Size-Dependent Band Gap. Journal of the American Chemical Society, 2006, 128, 12299-12306.	13.7	294
88	White-Light Emission from Magic-Sized Cadmium Selenide Nanocrystals.. ChemInform, 2006, 37, no.	0.0	1
89	White-Light Emission from Magic-Sized Cadmium Selenide Nanocrystals. Journal of the American Chemical Society, 2005, 127, 15378-15379.	13.7	620
90	Spectroscopy of Single- and Double-Wall Carbon Nanotubes in Different Environments. Nano Letters, 2005, 5, 511-514.	9.1	199

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91	Spherical Aberration Corrected Z-STEM Characterization of CdSe and CdSe/ZnS Nanocrystals. Materials Research Society Symposia Proceedings, 2004, 818, 342.	0.1	1
92	Aberration-Corrected Z-Contrast Scanning Transmission Electron Microscopy of CdSe Nanocrystals. Nano Letters, 2004, 4, 1279-1283.	9.1	60
93	Targeting Cell Surface Receptors with Ligand-Conjugated Nanocrystals. Journal of the American Chemical Society, 2002, 124, 4586-4594.	13.7	349
94	Effects of impurities on the optical properties of poly-3-hexylthiophene thin films. Thin Solid Films, 2002, 409, 198-205.	1.8	39
95	Material characterization of a nanocrystal based photovoltaic device. European Physical Journal D, 2001, 16, 275-277.	1.3	10