Mikhail Zamkov

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Direct observation of triplet energy transfer from semiconductor nanocrystals. Science, 2016, 351, 369-372.	12.6	336
2	The Role of Hole Localization in Sacrificial Hydrogen Production by Semiconductorâ€"Metal Heterostructured Nanocrystals. Nano Letters, 2011, 11, 2919-2926.	9.1	187
3	Suppression of the Plasmon Resonance in Au/CdS Colloidal Nanocomposites. Nano Letters, 2011, 11, 1792-1799.	9.1	173
4	Radiative Recombination of Spatially Extended Excitons in (ZnSe/CdS)/CdS Heterostructured Nanorods. Journal of the American Chemical Society, 2009, 131, 1328-1334.	13.7	129
5	Thermally activated delayed photoluminescence from pyrenyl-functionalized CdSe quantum dots. Nature Chemistry, 2018, 10, 225-230.	13.6	129
6	Synthesis and Characterization of Type II ZnSe/CdS Core/Shell Nanocrystals. Journal of Physical Chemistry C, 2008, 112, 9301-9307.	3.1	91
7	Energy Transfer in Quantum Dot Solids. ACS Energy Letters, 2017, 2, 154-160.	17.4	87
8	Improving the Catalytic Activity of Semiconductor Nanocrystals through Selective Domain Etching. Nano Letters, 2013, 13, 2016-2023.	9.1	84
9	Synthesis of PbS/TiO₂ Colloidal Heterostructures for Photovoltaic Applications. Journal of Physical Chemistry C, 2010, 114, 12496-12504.	3.1	81
10	Enhanced Lifetime of Excitons in Nonepitaxial Au/CdS Core/Shell Nanocrystals. ACS Nano, 2014, 8, 352-361.	14.6	81
11	Composition-Tunable Properties of CdS<i>_x</i>Te_{1âˆ'<i>x</i>} Alloy Nanocrystals. Journal of Physical Chemistry C, 2008, 112, 12795-12800.	3.1	72
12	Mapping the Exciton Diffusion in Semiconductor Nanocrystal Solids. ACS Nano, 2015, 9, 2926-2937.	14.6	56
13	Fabrication of All-Inorganic Nanocrystal Solids through Matrix Encapsulation of Nanocrystal Arrays. Journal of the American Chemical Society, 2011, 133, 20488-20499.	13.7	50
14	Plasmonic Nanocrystal Solar Cells Utilizing Strongly Confined Radiation. ACS Nano, 2014, 8, 12549-12559.	14.6	50
15	Dye-sensitized photovoltaic properties of hydrothermally prepared TiO2 nanotubes. Energy and Environmental Science, 2011, 4, 998.	30.8	49
16	Infrared Emitting PbS Nanocrystal Solids through Matrix Encapsulation. Chemistry of Materials, 2014, 26, 4256-4264.	6.7	47
17	Photocatalytic Applications of Colloidal Heterostructured Nanocrystals: Whatâ€™s Next?. Journal of Physical Chemistry Letters, 2015, 6, 4352-4359.	4.6	47
18	Tuning the Morphology of Au/CdS Nanocomposites through Temperature-Controlled Reduction of Gold-Oleate Complexes. Chemistry of Materials, 2010, 22, 5929-5936.	6.7	44

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19	One-Dimensional Carrier Confinement in â€œGiantâ€•CdS/CdSe Excitonic Nanoshells. Journal of the American Chemical Society, 2017, 139, 7815-7822.	13.7	44
20	Challenges and Prospects of Photocatalytic Applications Utilizing Semiconductor Nanocrystals. Frontiers in Chemistry, 2018, 6, 353.	3.6	42
21	Suppressed Carrier Scattering in CdS-Encapsulated PbS Nanocrystal Films. ACS Nano, 2013, 7, 6964-6977.	14.6	41
22	Nanoshell quantum dots: Quantum confinement beyond the exciton Bohr radius. Journal of Chemical Physics, 2020, 152, 110902.	3.0	39
23	Photocatalytic Activity of Core/Shell Semiconductor Nanocrystals Featuring Spatial Separation of Charges. Journal of Physical Chemistry C, 2012, 116, 22786-22793.	3.1	38
24	Just Add Ligands: Self-Sustained Size Focusing of Colloidal Semiconductor Nanocrystals. Chemistry of Materials, 2018, 30, 1391-1398.	6.7	38
25	Competition of Charge and Energy Transfer Processes in Donorâ€“Acceptor Fluorescence Pairs: Calibrating the Spectroscopic Ruler. ACS Nano, 2018, 12, 5657-5665.	14.6	38
26	Inorganic Solids of CdSe Nanocrystals Exhibiting High Emission Quantum Yield. Advanced Functional Materials, 2012, 22, 3714-3722.	14.9	36
27	Progress and Prospects of Solution-Processed Two-Dimensional Semiconductor Nanocrystals. Journal of Physical Chemistry C, 2020, 124, 21895-21908.	3.1	32
28	Colloidal semiconductor nanocrystals in energy transfer reactions. Chemical Communications, 2019, 55, 3033-3048.	4.1	31
29	Prospects and applications of plasmon-exciton interactions in the near-field regime. Nanophotonics, 2019, 8, 613-628.	6.0	28
30	Delayed Photoluminescence in Metal-Conjugated Fluorophores. Journal of the American Chemical Society, 2019, 141, 11286-11297.	13.7	26
31	The effect of dielectric friction on the rate of charge separation in type II ZnSe/CdS semiconductor nanorods. Applied Physics Letters, 2009, 94, .	3.3	22
32	Electric field enhancement in a self-assembled 2D array of silver nanospheres. Journal of Chemical Physics, 2014, 141, 214308.	3.0	20
33	Enhanced Emission of Nanocrystal Solids Featuring Slowly Diffusive Excitons. Journal of Physical Chemistry C, 2017, 121, 1477-1487.	3.1	20
34	Plasmon-Induced Energy Transfer: When the Game Is Worth the Candle. ACS Photonics, 2017, 4, 2290-2297.	6.6	20
35	Double-Well Colloidal Nanocrystals Featuring Two-Color Photoluminescence. Chemistry of Materials, 2017, 29, 7852-7858.	6.7	19
36	Energy Transport in CsPbBr₃ Perovskite Nanocrystal Solids. ACS Photonics, 2020, 7, 154-164.	6.6	19

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37	Exciton Generation in Semiconductor Nanocrystals via the Near-Field Plasmon Energy Transfer. Journal of Physical Chemistry C, 2015, 119, 15562-15571.	3.1	18
38	Quantum Shells Boost the Optical Gain of Lasing Media. ACS Nano, 2022, 16, 3017-3026.	14.6	18
39	Tracking the Energy Flow on Nanoscale <i>via</i> Sample-Transmitted Excitation Photoluminescence Spectroscopy. ACS Nano, 2017, 11, 4191-4197.	14.6	15
40	Lifting the Spectral Crosstalk in Multifluorophore Assemblies. Journal of Physical Chemistry C, 2017, 121, 26226-26232.	3.1	15
41	Sustained Biexciton Populations in Nanoshell Quantum Dots. ACS Photonics, 2019, 6, 1041-1050.	6.6	15
42	Colloidal Synthesis of Monodisperse Semiconductor Nanocrystals through Saturated Ionic Layer Adsorption. Chemistry of Materials, 2016, 28, 2823-2833.	6.7	14
43	Ambient Tip-Enhanced Photoluminescence with 5 nm Spatial Resolution. Journal of Physical Chemistry C, 2021, 125, 12251-12255.	3.1	14
44	Quantum Computing with Exciton Qubits in Colloidal Semiconductor Nanocrystals. Journal of Physical Chemistry C, 2021, 125, 22195-22203.	3.1	12
45	Solar hydrogen generation: Exceeding 100% efficiency. Nature Energy, 2017, 2, .	39.5	11
46	Measuring the Time-Dependent Monomer Concentration during the Hot-Injection Synthesis of Colloidal Nanocrystals. Chemistry of Materials, 2015, 27, 6102-6108.	6.7	9
47	Enabling Narrow Emission Line Widths in Colloidal Nanocrystals through Coalescence Growth. Chemistry of Materials, 2020, 32, 7524-7534.	6.7	9
48	Low-threshold laser medium utilizing semiconductor nanoshell quantum dots. Nanoscale, 2020, 12, 17426-17436.	5.6	9
49	Tuning the Dimensionality of Excitons in Colloidal Quantum Dot Molecules. Nano Letters, 2021, 21, 7339-7346.	9.1	9
50	Photoinduced Rotation of Colloidal Semiconductor Nanocrystals in an Electric Field. Nano Letters, 2021, 21, 4787-4794.	9.1	8
51	Influence of QD photosensitizers in the photocatalytic production of hydrogen with biomimetic [FeFe]-hydrogenase. Comparative performance of CdSe and CdTe. Chemosphere, 2021, 278, 130485.	8.2	8
52	Shape Control of Colloidal Semiconductor Nanocrystals through Thermodynamically Driven Aggregative Growth. Chemistry of Materials, 2022, 34, 2484-2494.	6.7	8
53	Colloidal Quantum Shells: An Emerging 2D Semiconductor for Energy Applications. ACS Energy Letters, 2022, 7, 1202-1213.	17.4	8
54	Ion-Mediated Ligand Exchange and Size Focusing of Semiconductor Nanocrystals in Ligand-Saturated Solutions. Journal of Physical Chemistry C, 2018, 122, 23623-23630.	3.1	6

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55	Self-Assembled PbS/CdS Quantum Dot Films with Switchable Symmetry and Emission. Chemistry of Materials, 2019, 31, 7855-7863.	6.7	5
56	Oneâ€dimensional growth of colloidal PbSe nanorods in chloroalkanes. Physica Status Solidi - Rapid Research Letters, 2016, 10, 833-837.	2.4	4