Todd D Krauss

List of Publications by Year
in descending order

80	7,440	87843 38	66879 78
papers	citations	h-index	g-index

83	83	83	9743
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Synthetic Mechanisms in the Formation of SnTe Nanocrystals. Journal of the American Chemical Society, 2022, 144, 6251-6260.	6.6	4
2	CdS Quantum Dots as Potent Photoreductants for Organic Chemistry Enabled by Auger Processes. Journal of the American Chemical Society, 2022, 144, 12229-12246.	6.6	35
3	Light-driven hydrogen production with CdSe quantum dots and a cobalt glutathione catalyst. Chemical Communications, 2021, 57, 2053-2056.	2.2	12
4	Quantum Dots for Improved Single-Molecule Localization Microscopy. Journal of Physical Chemistry B, 2021, 125, 2566-2576.	1.2	12
5	Molecular Polaritons Generated from Strong Coupling between CdSe Nanoplatelets and a Dielectric Optical Cavity. Journal of Physical Chemistry Letters, 2021, 12, 5030-5038.	2.1	18
6	Spatially resolved photoluminescence brightening in individual single-walled carbon nanotubes. Journal of Applied Physics, 2021, 129, 014305.	1.1	7
7	Semiconductor nanocrystal photocatalysis for the production of solar fuels. Journal of Chemical Physics, 2021, 154, 030901.	1.2	32
8	Single-Walled Carbon Nanotube Dark Exciton Photoluminescence Dynamics. Journal of Physical Chemistry C, 2021, 125, 25022-25029.	1.5	6
9	Polariton-Mediated Electron Transfer via Cavity Quantum Electrodynamics. Journal of Physical Chemistry B, 2020, 124, 6321-6340.	1.2	90
10	Enhancing the activity of photocatalytic hydrogen evolution from CdSe quantum dots with a polyoxovanadate cluster. Chemical Communications, 2020, 56, 8762-8765.	2.2	21
11	Size dependence of photocatalytic hydrogen generation for CdTe quantum dots. Journal of Chemical Physics, 2019, 151, 174707.	1.2	14
12	Size-Programmed Synthesis of PbSe Quantum Dots via Secondary Phosphine Chalcogenides. Chemistry of Materials, 2019, 31, 8301-8307.	3.2	9
13	Explaining the Unusual Photoluminescence of Semiconductor Nanocrystals Doped via Cation Exchange. Nano Letters, 2019, 19, 4797-4803.	4.5	5
14	(Invited) Colloidal Semiconductor Nanocrystal Photocatalysts: Teaching an Old Dot New Tricks. ECS Meeting Abstracts, 2019, , .	0.0	0
15	Defects Enable Dark Exciton Photoluminescence in Single-Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2018, 122, 3599-3607.	1.5	15
16	Recovery of Active and Efficient Photocatalytic H₂ Production for CdSe Quantum Dots. Journal of Physical Chemistry C, 2018, 122, 14099-14106.	1.5	10
17	Photoinduced charge separation in single-walled carbon nanotube/protein integrated systems. Nanoscale Horizons, 2017, 2, 163-166.	4.1	6
18	General and Efficient Câ€“C Bond Forming Photoredox Catalysis with Semiconductor Quantum Dots. Journal of the American Chemical Society, 2017, 139, 4250-4253.	6.6	194

#	Article	IF	Citations
19	Carbon Nanotube-Based Membrane for Light-Driven, Simultaneous Proton and Electron Transport. ACS Energy Letters, 2017, 2, 129-133.	8.8	6
20	Semiconductor quantum dot-sensitized rainbow photocathode for effective photoelectrochemical hydrogen generation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11297-11302.	3.3	53
21	Photoluminescence Brightening of Isolated Single-Walled Carbon Nanotubes. Journal of Physical Chemistry Letters, 2017, 8, 4954-4959.	2.1	10
22	Uncovering active precursors in colloidal quantum dot synthesis. Nature Communications, 2017, 8, 2082.	5.8	26
23	(Invited) Photoluminescnece Brightening in Single Walled Carbon Nanotubes. ECS Meeting Abstracts, 2017, , .	0.0	0
24	Largeâ€Scale Programmable Synthesis of PbS Quantum Dots. ChemPhysChem, 2016, 17, 681-686.	1.0	12
25	Distance-dependent energy transfer between CdSe/CdS quantum dots and a two-dimensional semiconductor. Applied Physics Letters, 2016, 108, .	1.5	54
26	Fabrication of Tapered Microtube Arrays and Their Application as a Microalgal Injection Platform. ACS Applied Materials & Interfaces, 2016, 8, 34198-34208.	4.0	11
27	Photocatalytic Hydrogen Generation by CdSe/CdS Nanoparticles. Nano Letters, 2016, 16, 5347-5352.	4.5	162
28	Photophysical Properties of CdSe/CdS core/shell quantum dots with tunable surface composition. Chemical Physics, 2016, 471, 24-31.	0.9	40
29	Aqueous Photogeneration of H₂ with CdSe Nanocrystals and Nickel Catalysts: Electron Transfer Dynamics. Journal of Physical Chemistry B, 2015, 119, 7349-7357.	1.2	33
30	Bright Fraction of Single-Walled Carbon Nanotubes through Correlated Fluorescence and Topography Measurements. Journal of Physical Chemistry Letters, 2015, 6, 2816-2821.	2.1	9
31	The influence of continuous vs. pulsed laser excitation on single quantum dot photophysics. Physical Chemistry Chemical Physics, 2014, 16, 25723-25728.	1.3	13
32	Electron Conductive and Proton Permeable Vertically Aligned Carbon Nanotube Membranes. Nano Letters, 2014, 14, 1728-1733.	4.5	28
33	Uncovering Hot Hole Dynamics in CdSe Nanocrystals. Journal of Physical Chemistry Letters, 2014, 5, 3032-3036.	2.1	27
34	Selective Suspension of Single-Walled Carbon Nanotubes Using Î²-Sheet Polypeptides. Journal of Physical Chemistry C, 2014, 118, 5935-5944.	1.5	14
35	Spectroscopic Investigation of Electrochemically Charged Individual (6,5) Single-Walled Carbon Nanotubes. Nano Letters, 2014, 14, 3138-3144.	4.5	23
36	Chemical Mechanisms of Semiconductor Nanocrystal Synthesis. Chemistry of Materials, 2013, 25, 1351-1362.	3.2	108

#	Article	IF	Citations
37	Robust Photogeneration of H ₂ in Water Using Semiconductor Nanocrystals and a Nickel Catalyst. Science, 2012, 338, 1321-1324.	6.0	716
38	Colloidal Semiconductor Quantum Dots with Tunable Surface Composition. Nano Letters, 2012, 12, 4465-4471.	4.5	201
39	Coming attractions for semiconductor quantum dots. Materials Today, 2011, 14, 382-387.	8.3	86
40	Bright Fluorescence from Individual Single-Walled Carbon Nanotubes. Nano Letters, 2011, 11, 1636-1640.	4.5	121
41	Multiple Exciton Generation in Single-Walled Carbon Nanotubes. Nano Letters, 2010, 10, 2381-2386.	4.5	142
42	Aging Induced Ag Nanoparticle Rearrangement under Ambient Atmosphere and Consequences for Nanoparticle-Enhanced DNA Biosensing. Analytical Chemistry, 2010, 82, 8664-8670.	3.2	18
43	Bright Future for Fluorescence Blinking in Semiconductor Nanocrystals. Journal of Physical Chemistry Letters, 2010, 1, 1377-1382.	2.1	64
44	Zinc Porphyrin as a Donor for FRET in Zn(II)cytochrome c. Journal of the American Chemical Society, 2010, 132, 1752-1753.	6.6	28
45	Mysteries of TOPSe Revealed: Insights into Quantum Dot Nucleation. Journal of the American Chemical Society, 2010, 132, 10973-10975.	6.6	192
46	Organic photonic bandgap microcavities doped with semiconductor nanocrystals for room-temperature on-demand single-photon sources. Journal of Modern Optics, 2009, 56, 167-174.	0.6	28
47	Non-blinking semiconductor nanocrystals. Nature, 2009, 459, 686-689.	13.7	570
48	Nanotubes light up cells. Nature Nanotechnology, 2009, 4, 85-86.	15.6	22
49	Label-Free DNA Detection on Nanostructured Ag Surfaces. ACS Nano, 2009, 3, 2265-2273.	7.3	98
50	Multilayer film preparation of poly(4-vinylphenol) from aqueous media. Surface and Coatings Technology, 2008, 202, 6109-6112.	2.2	9
51	Ultrabright PbSe Magic-sized Clusters. Nano Letters, 2008, 8, 2896-2899.	4.5	154
52	Flow Cytometric Analysis To Detect Pathogens in Bacterial Cell Mixtures Using Semiconductor Quantum Dots. Analytical Chemistry, 2008, 80, 864-872.	3.2	108
53	Photophysics of Individual Single-Walled Carbon Nanotubes. Accounts of Chemical Research, 2008, 41, 235-243.	7.6	108
54	Comparison of the Quality of Aqueous Dispersions of Single Wall Carbon Nanotubes Using Surfactants and Biomolecules. Langmuir, 2008, 24, 5070-5078.	1.6	225

#	Article	IF	Citations
55	Small-Angle Rotation in Individual Colloidal CdSe Quantum Rods. ACS Nano, 2008, 2, 1179-1188.	7.3	19
56	Zinc porphyrin: A fluorescent acceptor in studies of Zn-cytochromecunfolding by fluorescence resonance energy transfer. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 10779-10784.	3.3	37
57	Fluorescent Quantum Dotâ^'Polymer Nanocomposite Particles by Emulsification/Solvent Evaporation. Chemistry of Materials, 2007, 19, 2930-2936.	3.2	47
58	Fluorescence Efficiency of Individual Carbon Nanotubes. Nano Letters, 2007, 7, 3698-3703.	4.5	116
59	Uncovering Forbidden Optical Transitions in PbSe Nanocrystals. Nano Letters, 2007, 7, 3827-3831.	4.5	51
60	Identification of high-stringency DNA hairpin probes by partial gene folding. Biosensors and Bioelectronics, 2007, 23, 233-240.	5.3	10
61	Less excitement for more gain. Nature, 2007, 447, 385-386.	13.7	7
62	Preparation and use of metal surface-immobilized DNA hairpins for the detection of oligonucleotides. Nature Protocols, 2007, 2, 2105-2110.	5.5	26
63	Photobrightening and photodarkening in PbS quantum dots. Physical Chemistry Chemical Physics, 2006, 8, 3851.	1.3	96
64	Fluorescence Spectroscopy of Single Lead Sulfide Quantum Dots. Nano Letters, 2006, 6, 510-514.	4.5	231
65	Single Carbon Nanotube Optical Spectroscopy. ChemPhysChem, 2005, 6, 577-582.	1.0	82
66	Shell Distribution on Colloidal CdSe/ZnS Quantum Dots. Nano Letters, 2005, 5, 565-570.	4.5	80
67	Sensitivity and Specificity of Metal Surface-Immobilized â€œMolecular Beaconâ€•Biosensors. Journal of the American Chemical Society, 2005, 127, 7932-7940.	6.6	208
68	Towards single-spot multianalyte molecular beacon biosensors. Talanta, 2005, 67, 479-485.	2.9	27
69	Detection of Single Bacterial Pathogens with Semiconductor Quantum Dots. Analytical Chemistry, 2005, 77, 4861-4869.	3.2	227
70	Polarization Surface-Charge Density of Single Semiconductor Quantum Rods. Physical Review Letters, 2004, 92, 216803.	2.9	54
71	Effect of oxidation on charge localization and transport in a single layer of silicon nanocrystals. Journal of Applied Physics, 2004, 96, 654-660.	1.1	23
72	Simultaneous Fluorescence and Raman Scattering from Single Carbon Nanotubes. Science, 2003, 301, 1354-1356.	6.0	391

#	Article	IF	Citations
73	Hybridization-Based Unquenching of DNA Hairpins on Au Surfaces:Â Prototypical â€œMolecular Beaconâ€• Biosensors. Journal of the American Chemical Society, 2003, 125, 4012-4013.	6.6	229
74	Photoluminescence enhancement of colloidal quantum dots embedded in a monolithic microcavity. Applied Physics Letters, 2003, 82, 4032-4034.	1.5	65
75	The structural basis for giant enhancement enabling single-molecule Raman scattering. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 8638-8643.	3.3	209
76	Optical Properties of Colloidal PbSe Nanocrystals. Nano Letters, 2002, 2, 1321-1324.	4.5	443
77	Attachment of Single CdSe Nanocrystals to Individual Single-Walled Carbon Nanotubes. Nano Letters, 2002, 2, 1253-1258.	4.5	295
78	Synthesis, Self-Assembly, and Nonlinear Optical Properties of Conjugated Helical Metal Phthalocyanine Derivatives. Journal of the American Chemical Society, 1999, 121, 3453-3459.	6.6	196
79	Measurements of the tensor properties of third-order nonlinearities in wide-gap semiconductors. Optics Letters, 1995, 20, 1110.	1.7	23
80	Femtosecond measurement of nonlinear absorption and refraction in CdS, ZnSe, and ZnS. Applied Physics Letters, 1994, 65, 1739-1741.	1.5	239