Benoit Mahler

List of Publications by Year
in descending order

63 papers	6,497 citations	172386 29 h-index	138417 58 g-index
63 all docs	63 docs citations	63 times ranked	7851 citing authors

#	Article	IF	Citations
1	Colloidal nanoplatelets with two-dimensional electronic structure. Nature Materials, 2011, 10, 936-941.	13.3	1,056
2	Towards non-blinking colloidal quantumÂdots. Nature Materials, 2008, 7, 659-664.	13.3	764
3	Colloidal Synthesis of 1T-WS₂ and 2H-WS₂ Nanosheets: Applications for Photocatalytic Hydrogen Evolution. Journal of the American Chemical Society, 2014, 136, 14121-14127.	6.6	673
4	Two-Dimensional Colloidal Nanocrystals. Chemical Reviews, 2016, 116, 10934-10982.	23.0	412
5	Core/Shell Colloidal Semiconductor Nanoplatelets. Journal of the American Chemical Society, 2012, 134, 18591-18598.	6.6	323
6	A Versatile Strategy for Quantum Dot Ligand Exchange. Journal of the American Chemical Society, 2007, 129, 482-483.	6.6	296
7	Bright and Grey States in CdSe-CdS Nanocrystals Exhibiting Strongly Reduced Blinking. Physical Review Letters, 2009, 102, 136801.	2.9	252
8	Thermal activation of non-radiative Auger recombination in charged colloidal nanocrystals. Nature Nanotechnology, 2013, 8, 206-212.	15.6	219
9	Quasiâ€2D Colloidal Semiconductor Nanoplatelets for Narrow Electroluminescence. Advanced Functional Materials, 2014, 24, 295-302.	7.8	208
10	Spectroscopy of Colloidal Semiconductor Core/Shell Nanoplatelets with High Quantum Yield. Nano Letters, 2013, 13, 3321-3328.	4.5	191
11	Ligand-Controlled Polytypism of Thick-Shell CdSe/CdS Nanocrystals. Journal of the American Chemical Society, 2010, 132, 953-959.	6.6	169
12	Synthesis, encapsulation, purification and coupling of single quantum dots in phospholipid micelles for their use in cellular and in vivo imaging. Nature Protocols, 2007, 2, 2383-2390.	5.5	155
13	Flat Colloidal Semiconductor Nanoplatelets. Chemistry of Materials, 2013, 25, 1262-1271.	3.2	135
14	Two-Dimensional Growth of CdSe Nanocrystals, from Nanoplatelets to Nanosheets. Chemistry of Materials, 2013, 25, 639-645.	3.2	124
15	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>Mn</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mo>+</mml:mo></mml:mrow></mml:msup></mml:math> a Radial Pressure Gauge in Colloidal Core/Shell Nanocrystals. Physical Review Letters, 2007, 99, 265501.	2.9	117
16	Fluorine-18-Labeled Phospholipid Quantum Dot Micelles for in Vivo Multimodal Imaging from Whole Body to Cellular Scales. Bioconjugate Chemistry, 2008, 19, 1921-1926.	1.8	113
17	Colloidal CdSe/CdS Dot-in-Plate Nanocrystals with 2D-Polarized Emission. ACS Nano, 2012, 6, 6741-6750.	7.3	106
18	Temporary Charge Carrier Separation Dominates the Photoluminescence Decay Dynamics of Colloidal CdSe Nanoplatelets. Nano Letters, 2016, 16, 2047-2053.	4.5	103

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19	Optimized Synthesis of CdTe Nanoplatelets and Photoresponse of CdTe Nanoplatelets Films. Chemistry of Materials, 2013, 25, 2455-2462.	3.2	99
20	Room-temperature exciton coherence and dephasing in two-dimensional nanostructures. Nature Communications, 2015, 6, 6086.	5.8	94
21	Synthesis of Near-Infrared-Emitting, Water-Soluble CdTeSe/CdZnS Core/Shell Quantum Dots. Chemistry of Materials, 2009, 21, 1418-1424.	3.2	83
22	Synthesis of Zinc and Lead Chalcogenide Core and Core/Shell Nanoplatelets Using Sequential Cation Exchange Reactions. Chemistry of Materials, 2014, 26, 3002-3008.	3.2	83
23	Library of Two-Dimensional Hybrid Lead Halide Perovskite Scintillator Crystals. Chemistry of Materials, 2020, 32, 8530-8539.	3.2	80
24	On the use of CdSe scintillating nanoplatelets as time taggers for high-energy gamma detection. Npj 2D Materials and Applications, 2019, 3, .	3.9	53
25	Effect of commensurate lithium doping on the scintillation of two-dimensional perovskite crystals. Journal of Materials Chemistry C, 2021, 9, 2504-2512.	2.7	46
26	Strong Purcell effect observed in single thick-shell CdSe/CdS nanocrystals coupled to localized surface plasmons. Physical Review B, 2011, 84, .	1.1	41
27	Morphology-controlled In₂O₃ nanostructures enhance the performance of photoelectrochemical water oxidation. Nanoscale, 2015, 7, 3683-3693.	2.8	37
28	The mass load effect on the resonant acoustic frequencies of colloidal semiconductor nanoplatelets. Nanoscale, 2016, 8, 13251-13256.	2.8	37
29	Ultrafast exciton dynamics in 2D in-plane hetero-nanostructures: delocalization and charge transfer. Physical Chemistry Chemical Physics, 2017, 19, 8373-8379.	1.3	31
30	Nonâ€Blinking Semiconductor Colloidal Quantum Dots for Biology, Optoelectronics and Quantum Optics. ChemPhysChem, 2009, 10, 879-882.	1.0	29
31	Metallic Functionalization of CdSe 2D Nanoplatelets and Its Impact on Electronic Transport. Journal of Physical Chemistry C, 2016, 120, 12351-12361.	1.5	29
32	Oligomeric PEG-Phospholipids for Solubilization and Stabilization of Fluorescent Nanocrystals in Water. Langmuir, 2008, 24, 3016-3019.	1.6	26
33	Plasmon assisted single photon emission of CdSe/CdS nanocrystals deposited on random gold film. Applied Physics Letters, 2010, 97, 053109.	1.5	26
34	Evidence for a narrow band gap phase in 1Tâ€² WS2 nanosheet. Applied Physics Letters, 2019, 115, .	1.5	25
35	Deterministic Light Yield, Fast Scintillation, and Microcolumn Structures in Lead Halide Perovskite Nanocrystals. Journal of Physical Chemistry C, 2021, 125, 14082-14088.	1.5	25
36	CrAsHâ^'Quantum Dot Nanohybrids for Smart Targeting of Proteins. Journal of the American Chemical Society, 2008, 130, 8596-8597.	6.6	24

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37	Synthesis of CdSe Nanoplatelets without Short-Chain Ligands: Implication for Their Growth Mechanisms. ACS Omega, 2018, 3, 6199-6205.	1.6	20
38	Chiral Perovskite Nanoplatelets Exhibiting Circularly Polarized Luminescence through Ligand Optimization. Advanced Optical Materials, 2022, 10, .	3.6	18
39	Synthesis of Monodisperse Superconducting Lead Nanocrystals. Journal of Physical Chemistry C, 2009, 113, 7120-7122.	1.5	15
40	Auger Recombination and Multiple Exciton Generation in Colloidal Two-Dimensional Perovskite Nanoplatelets: Implications for Light-Emitting Devices. ACS Applied Nano Materials, 2021, 4, 558-567.	2.4	15
41	Modeling Energy Migration for Upconversion Materials. Journal of Physical Chemistry C, 2018, 122, 888-893.	1.5	14
42	Multicolor Solar Absorption as a Synergetic UV Upconversion Enhancement Mechanism in LiYF₄:Yb³⁺,Tm³⁺ Nanocrystals. ACS Photonics, 2019, 6, 3126-3131.	3.2	12
43	Stable and Bright Commercial CsPbBr₃ Quantum Dot-Resin Layers for Apparent X-ray Imaging Screen. ACS Applied Materials & Interfaces, 2021, 13, 59450-59459.	4.0	12
44	Persistent nucleation and size dependent attachment kinetics produce monodisperse PbS nanocrystals. Chemical Science, 2022, 13, 4977-4983.	3.7	12
45	Perspectives for CdSe/CdS spherical quantum wells as rapid-response nano-scintillators. Nanoscale, 2021, 13, 19578-19586.	2.8	11
46	Environmental effects on the natural vibrations of nanoplatelets: a high pressure study. Nanoscale, 2017, 9, 6551-6557.	2.8	9
47	Ligand-dependent nano-mechanical properties of CdSe nanoplatelets: calibrating nanobalances for ligand affinity monitoring. Nanoscale, 2021, 13, 8639-8647.	2.8	9
48	2D Monolayer of the 1Tâ€™ Phase of Alloyed WSSe from Colloidal Synthesis. Journal of Physical Chemistry C, 2021, 125, 11058-11065.	1.5	9
49	Exciton Cooling in 2D Perovskite Nanoplatelets: Rationalized Carrier-Induced Stark and Phonon Bottleneck Effects. Journal of Physical Chemistry Letters, 2022, 13, 393-399.	2.1	9
50	In Situ Electron-Beam Polymerization Stabilized Quantum Dot Micelles. Langmuir, 2011, 27, 4358-4361.	1.6	8
51	Quest to enhance up-conversion efficiency: a comparison of anhydrous vs. hydrous synthesis of NaGdF4: Yb3+ and Tm3+ nanoparticles. Materials Today Chemistry, 2020, 17, 100326.	1.7	7
52	Optical properties of fully inorganic core/gradient-shell CdSe/CdZnS nanocrystals at the ensemble and single-nanocrystal levels. Physical Chemistry Chemical Physics, 2021, 23, 22750-22759.	1.3	6
53	Radial pressure measurement in core/shell nanocrystals. Proceedings of SPIE, 2009, , .	0.8	5
54	Charge Carrier Relaxation in Colloidal FAPbI3 Nanostructures Using Global Analysis. Nanomaterials, 2020, 10, 1897.	1.9	5

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55	Doping MAPbBr₃ hybrid perovskites with CdSe/CdZnS quantum dots: from emissive thin films to hybrid single-photon sources. Nanoscale, 2022, 14, 5769-5781.	2.8	5
56	Quantum cascades of photons in colloidal core-shell quantum dots. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 114003.	0.6	4
57	Toward non-blinking quantum dots: the effect of thick shell. , 2009, , .		4
58	Precise size control of hydrophobic gold nanoparticles in the 2â€“5 nm range. Chemical Communications, 2021, 57, 12512-12515.	2.2	3
59	Optical properties of individual CdS/CdSe/CdS nanocrystals: spherical quantum wells as single-photon sources. Nanotechnology, 2022, 33, 275703.	1.3	1
60	Modification of single CdSe-CdS nanocrystals fluorescence through their coupling to a gold semicontinuous film. , 2009, , .		0
61	Enhancing the fluorescence of thick-shell single CdSe-CdS nanocrystals through their coupling with plasmon resonances of gold films. , 2013, , .		0
62	Perovskite scintillators: emission at high energy excitations. , 2021, , .		0
63	Room-Temperature studies of Electronic Coherences in Two-Dimensional Nanostructures. , 2014, , .		0