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	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
2	Persistent nucleation and size dependent attachment kinetics produce monodisperse PbS nanocrystals. Chemical Science, 2022, 13, 4977-4983.	3.7	12
3	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
4	Optical properties of individual CdS/CdSe/CdS nanocrystals: spherical quantum wells as single-photon sources. Nanotechnology, 2022, 33, 275703.	1.3	1
5	Chiral Perovskite Nanoplatelets Exhibiting Circularly Polarized Luminescence through Ligand Optimization. Advanced Optical Materials, 2022, 10, .	3.6	18
6	Ligand-dependent nano-mechanical properties of CdSe nanoplatelets: calibrating nanobalances for ligand affinity monitoring. Nanoscale, 2021, 13, 8639-8647.	2.8	9
7	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
8	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
9	2D Monolayer of the 1Tâ€™ Phase of Alloyed WSSe from Colloidal Synthesis. Journal of Physical Chemistry C, 2021, 125, 11058-11065.	1.5	9
10	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
11	Perovskite scintillators: emission at high energy excitations. , 2021, , .		0
12	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
13	Precise size control of hydrophobic gold nanoparticles in the 2â€“5 nm range. Chemical Communications, 2021, 57, 12512-12515.	2.2	3
14	Perspectives for CdSe/CdS spherical quantum wells as rapid-response nano-scintillators. Nanoscale, 2021, 13, 19578-19586.	2.8	11
15	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
16	Charge Carrier Relaxation in Colloidal FAPbI3 Nanostructures Using Global Analysis. Nanomaterials, 2020, 10, 1897.	1.9	5
17	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
18	Library of Two-Dimensional Hybrid Lead Halide Perovskite Scintillator Crystals. Chemistry of Materials, 2020, 32, 8530-8539.	3.2	80

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19	Evidence for a narrow band gap phase in 1Tâ€² WS2 nanosheet. Applied Physics Letters, 2019, 115, .	1.5	25
20	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
21	Multicolor Solar Absorption as a Synergetic UV Upconversion Enhancement Mechanism in LiYF₄:Yb³⁺,Tm³⁺ Nanocrystals. ACS Photonics, 2019, 6, 3126-3131.	3.2	12
22	Modeling Energy Migration for Upconversion Materials. Journal of Physical Chemistry C, 2018, 122, 888-893.	1.5	14
23	Synthesis of CdSe Nanoplatelets without Short-Chain Ligands: Implication for Their Growth Mechanisms. ACS Omega, 2018, 3, 6199-6205.	1.6	20
24	Ultrafast exciton dynamics in 2D in-plane hetero-nanostructures: delocalization and charge transfer. Physical Chemistry Chemical Physics, 2017, 19, 8373-8379.	1.3	31
25	Environmental effects on the natural vibrations of nanoplatelets: a high pressure study. Nanoscale, 2017, 9, 6551-6557.	2.8	9
26	Two-Dimensional Colloidal Nanocrystals. Chemical Reviews, 2016, 116, 10934-10982.	23.0	412
27	Metallic Functionalization of CdSe 2D Nanoplatelets and Its Impact on Electronic Transport. Journal of Physical Chemistry C, 2016, 120, 12351-12361.	1.5	29
28	The mass load effect on the resonant acoustic frequencies of colloidal semiconductor nanoplatelets. Nanoscale, 2016, 8, 13251-13256.	2.8	37
29	Temporary Charge Carrier Separation Dominates the Photoluminescence Decay Dynamics of Colloidal CdSe Nanoplatelets. Nano Letters, 2016, 16, 2047-2053.	4.5	103
30	Morphology-controlled In₂O₃ nanostructures enhance the performance of photoelectrochemical water oxidation. Nanoscale, 2015, 7, 3683-3693.	2.8	37
31	Room-temperature exciton coherence and dephasing in two-dimensional nanostructures. Nature Communications, 2015, 6, 6086.	5.8	94
32	Quasiâ€2D Colloidal Semiconductor Nanoplatelets for Narrow Electroluminescence. Advanced Functional Materials, 2014, 24, 295-302.	7.8	208
33	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
34	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
35	Room-Temperature studies of Electronic Coherences in Two-Dimensional Nanostructures. , 2014, , .		0
36	Enhancing the fluorescence of thick-shell single CdSe-CdS nanocrystals through their coupling with plasmon resonances of gold films. , 2013, , .		0

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37	Flat Colloidal Semiconductor Nanoplatelets. Chemistry of Materials, 2013, 25, 1262-1271.	3.2	135
38	Two-Dimensional Growth of CdSe Nanocrystals, from Nanoplatelets to Nanosheets. Chemistry of Materials, 2013, 25, 639-645.	3.2	124
39	Thermal activation of non-radiative Auger recombination in charged colloidal nanocrystals. Nature Nanotechnology, 2013, 8, 206-212.	15.6	219
40	Optimized Synthesis of CdTe Nanoplatelets and Photoresponse of CdTe Nanoplatelets Films. Chemistry of Materials, 2013, 25, 2455-2462.	3.2	99
41	Spectroscopy of Colloidal Semiconductor Core/Shell Nanoplatelets with High Quantum Yield. Nano Letters, 2013, 13, 3321-3328.	4.5	191
42	Colloidal CdSe/CdS Dot-in-Plate Nanocrystals with 2D-Polarized Emission. ACS Nano, 2012, 6, 6741-6750.	7.3	106
43	Core/Shell Colloidal Semiconductor Nanoplatelets. Journal of the American Chemical Society, 2012, 134, 18591-18598.	6.6	323
44	In Situ Electron-Beam Polymerization Stabilized Quantum Dot Micelles. Langmuir, 2011, 27, 4358-4361.	1.6	8
45	Colloidal nanoplatelets with two-dimensional electronic structure. Nature Materials, 2011, 10, 936-941.	13.3	1,056
46	Strong Purcell effect observed in single thick-shell CdSe/CdS nanocrystals coupled to localized surface plasmons. Physical Review B, 2011, 84, .	1.1	41
47	Ligand-Controlled Polytypism of Thick-Shell CdSe/CdS Nanocrystals. Journal of the American Chemical Society, 2010, 132, 953-959.	6.6	169
48	Plasmon assisted single photon emission of CdSe/CdS nanocrystals deposited on random gold film. Applied Physics Letters, 2010, 97, 053109.	1.5	26
49	Modification of single CdSe-CdS nanocrystals fluorescence through their coupling to a gold semicontinuous film. , 2009, , .		0
50	Nonâ€Blinking Semiconductor Colloidal Quantum Dots for Biology, Optoelectronics and Quantum Optics. ChemPhysChem, 2009, 10, 879-882.	1.0	29
51	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
52	Synthesis of Near-Infrared-Emitting, Water-Soluble CdTeSe/CdZnS Core/Shell Quantum Dots. Chemistry of Materials, 2009, 21, 1418-1424.	3.2	83
53	Synthesis of Monodisperse Superconducting Lead Nanocrystals. Journal of Physical Chemistry C, 2009, 113, 7120-7122.	1.5	15
54	Bright and Grey States in CdSe-CdS Nanocrystals Exhibiting Strongly Reduced Blinking. Physical Review Letters, 2009, 102, 136801.	2.9	252

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55	Toward non-blinking quantum dots: the effect of thick shell. , 2009, , .		4
56	Radial pressure measurement in core/shell nanocrystals. Proceedings of SPIE, 2009, , .	0.8	5
57	Towards non-blinking colloidal quantumÂdots. Nature Materials, 2008, 7, 659-664.	13.3	764
58	Fluorine-18-Labeled Phospholipid Quantum Dot Micelles for <i>in Vivo</i> Multimodal Imaging from Whole Body to Cellular Scales. Bioconjugate Chemistry, 2008, 19, 1921-1926.	1.8	113
59	CrAsHâ"Quantum Dot Nanohybrids for Smart Targeting of Proteins. Journal of the American Chemical Society, 2008, 130, 8596-8597.	6.6	24
60	Oligomeric PEG-Phospholipids for Solubilization and Stabilization of Fluorescent Nanocrystals in Water. Langmuir, 2008, 24, 3016-3019.	1.6	26
61	A Versatile Strategy for Quantum Dot Ligand Exchange. Journal of the American Chemical Society, 2007, 129, 482-483.	6.6	296
62	<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: a Radial Pressure Gauge in Colloidal Core/Shell Nanocrystals. Physical Review Letters, 2007, 99, 265501.	2.9	117
63	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