Sandrine Ithurria

List of Publications by Year
in descending order

78 papers	4,970 citations	117625 34 h-index	88630 70 g-index
81 all docs	81 docs citations	81 times ranked	4531 citing authors

#	ARTICLE	IF	CITATIONS
1	Quasi 2D Colloidal CdSe Platelets with Thicknesses Controlled at the Atomic Level. Journal of the American Chemical Society, 2008, 130, 16504-16505.	13.7	662
2	Two-Dimensional Colloidal Nanocrystals. Chemical Reviews, 2016, 116, 10934-10982.	47.7	412
3	Colloidal Atomic Layer Deposition (c-ALD) using Self-Limiting Reactions at Nanocrystal Surface Coupled to Phase Transfer between Polar and Nonpolar Media. Journal of the American Chemical Society, 2012, 134, 18585-18590.	13.7	297
4	Two-Dimensional Colloidal Metal Chalcogenides Semiconductors: Synthesis, Spectroscopy, and Applications. Accounts of Chemical Research, 2015, 48, 22-30.	15.6	248
5	Efficient Exciton Concentrators Built from Colloidal Core/Crown CdSe/CdS Semiconductor Nanoplatelets. Nano Letters, 2014, 14, 207-213.	9.1	224
6	A colloidal quantum dot infrared photodetector and its use for intraband detection. Nature Communications, 2019, 10, 2125.	12.8	155
7	Type-II CdSe/CdTe Core/Crown Semiconductor Nanoplatelets. Journal of the American Chemical Society, 2014, 136, 16430-16438.	13.7	153
8	Infrared Photodetection Based on Colloidal Quantum-Dot Films with High Mobility and Optical Absorption up to THz. Nano Letters, 2016, 16, 1282-1286.	9.1	150
9	Low Voltage, Hysteresis Free, and High Mobility Transistors from All-Inorganic Colloidal Nanocrystals. Nano Letters, 2012, 12, 1813-1820.	9.1	137
10	Flat Colloidal Semiconductor Nanoplatelets. Chemistry of Materials, 2013, 25, 1262-1271.	6.7	135
11	Two-Dimensional Growth of CdSe Nanocrystals, from Nanoplatelets to Nanosheets. Chemistry of Materials, 2013, 25, 639-645.	6.7	124
12	<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.	7.8	117
13	Carrier Cooling in Colloidal Quantum Wells. Nano Letters, 2012, 12, 6158-6163.	9.1	105
14	Monitoring Morphological Changes in 2D Monolayer Semiconductors Using Atom-Thick Plasmonic Nanocavities. ACS Nano, 2015, 9, 825-830.	14.6	101
15	Strongly Confined HgTe 2D Nanoplatelets as Narrow Near-Infrared Emitters. Journal of the American Chemical Society, 2016, 138, 10496-10501.	13.7	98
16	Electrolyte-Gated Colloidal Nanoplatelets-Based Phototransistor and Its Use for Bicolor Detection. Nano Letters, 2014, 14, 2715-2719.	9.1	94
17	Phonon Line Emission Revealed by Self-Assembly of Colloidal Nanoplatelets. ACS Nano, 2013, 7, 3332-3340.	14.6	90
18	Real-Time in Situ Probing of High-Temperature Quantum Dots Solution Synthesis. Nano Letters, 2015, 15, 2620-2626.	9.1	84

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19	Ultrathin CdSe in Plasmonic Nanogaps for Enhanced Photocatalytic Water Splitting. Journal of Physical Chemistry Letters, 2015, 6, 1099-1103.	4.6	75
20	Halide Ligands To Release Strain in Cadmium Chalcogenide Nanoplatelets and Achieve High Brightness. ACS Nano, 2019, 13, 5326-5334.	14.6	71
21	Mercury Chalcogenide Quantum Dots: Material Perspective for Device Integration. Chemical Reviews, 2021, 121, 3627-3700.	47.7	70
22	Surface Control of Doping in Self-Doped Nanocrystals. ACS Applied Materials & Interfaces, 2016, 8, 27122-27128.	8.0	66
23	Electrolyte-Gated Field Effect Transistor to Probe the Surface Defects and Morphology in Films of Thick CdSe Colloidal Nanoplatelets. ACS Nano, 2014, 8, 3813-3820.	14.6	61
24	Intraband Mid-Infrared Transitions in Ag₂Se Nanocrystals: Potential and Limitations for Hg-Free Low-Cost Photodetection. Journal of Physical Chemistry C, 2018, 122, 18161-18167.	3.1	59
25	Investigating the n- and p-Type Electrolytic Charging of Colloidal Nanoplatelets. Journal of Physical Chemistry C, 2015, 119, 21795-21799.	3.1	57
26	Design of a Unipolar Barrier for a Nanocrystal-Based Short-Wave Infrared Photodiode. ACS Photonics, 2018, 5, 4569-4576.	6.6	49
27	Short Wave Infrared Devices Based on HgTe Nanocrystals with Air Stable Performances. Journal of Physical Chemistry C, 2018, 122, 14979-14985.	3.1	49
28	Charge Dynamics and Optolectronic Properties in HgTe Colloidal Quantum Wells. Nano Letters, 2017, 17, 4067-4074.	9.1	48
29	Doping as a Strategy to Tune Color of 2D Colloidal Nanoplatelets. ACS Applied Materials & Interfaces, 2019, 11, 10128-10134.	8.0	48
30	Near Unity Absorption in Nanocrystal Based Short Wave Infrared Photodetectors Using Guided Mode Resonators. ACS Photonics, 2019, 6, 2553-2561.	6.6	44
31	HgSe Self-Doped Nanocrystals as a Platform to Investigate the Effects of Vanishing Confinement. ACS Applied Materials & Interfaces, 2017, 9, 36173-36180.	8.0	40
32	Observation of Size-Dependent Thermalization in CdSe Nanocrystals Using Time-Resolved Photoluminescence Spectroscopy. Physical Review Letters, 2011, 107, 177403.	7.8	39
33	Selective Electrophoretic Deposition of CdSe Nanoplatelets. Chemistry of Materials, 2014, 26, 4514-4520.	6.7	36
34	Complex Optical Index of HgTe Nanocrystal Infrared Thin Films and Its Use for Short Wave Infrared Photodiode Design. Advanced Optical Materials, 2021, 9, 2002066.	7.3	36
35	From dilute isovalent substitution to alloying in CdSeTe nanoplatelets. Physical Chemistry Chemical Physics, 2016, 18, 15295-15303.	2.8	33
36	Coupled HgSe Colloidal Quantum Wells through a Tunable Barrier: A Strategy To Uncouple Optical and Transport Band Gap. Chemistry of Materials, 2018, 30, 4065-4072.	6.7	32

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37	Excitonâ€"Phonon Interactions Govern Charge-Transfer-State Dynamics in CdSe/CdTe Two-Dimensional Colloidal Heterostructures. Journal of the American Chemical Society, 2018, 140, 14097-14111.	13.7	30
38	Metallic Functionalization of CdSe 2D Nanoplatelets and Its Impact on Electronic Transport. Journal of Physical Chemistry C, 2016, 120, 12351-12361.	3.1	29
39	Electronic structure robustness and design rules for 2D colloidal heterostructures. Journal of Applied Physics, 2018, 123, .	2.5	29
40	The Strong Confinement Regime in HgTe Two-Dimensional Nanoplatelets. Journal of Physical Chemistry C, 2020, 124, 23460-23468.	3.1	29
41	Electroluminescence from HgTe Nanocrystals and Its Use for Active Imaging. Nano Letters, 2020, 20, 6185-6190.	9.1	28
42	Engineering Bicolor Emission in 2D Core/Crown CdSe/CdSe_{1â€"<i>x</i>}Te_{<i>x</i>} Nanoplatelet Heterostructures Using Band-Offset Tuning. Journal of Physical Chemistry C, 2017, 121, 24816-24823.	3.1	26
43	Insights into the Formation Mechanism of CdSe Nanoplatelets Using in Situ X-ray Scattering. Nano Letters, 2019, 19, 6466-6474.	9.1	26
44	Electroluminescence from nanocrystals above 2â€‰Âµm. Nature Photonics, 2022, 16, 38-44.	31.4	25
45	Wave-Function Engineering in HgSe/HgTe Colloidal Heterostructures To Enhance Mid-infrared Photoconductive Properties. Nano Letters, 2018, 18, 4590-4597.	9.1	24
46	Band Edge Dynamics and Multiexciton Generation in Narrow Band Gap HgTe Nanocrystals. ACS Applied Materials & Interfaces, 2018, 10, 11880-11887.	8.0	23
47	Field-Effect Transistor and Photo-Transistor of Narrow-Band-Gap Nanocrystal Arrays Using Ionic Glasses. Nano Letters, 2019, 19, 3981-3986.	9.1	23
48	Nanoplatelet-Based Light-Emitting Diode and Its Use in All-Nanocrystal LiFi-like Communication. ACS Applied Materials & Interfaces, 2020, 12, 22058-22065.	8.0	23
49	Surface Modification of CdE (E: S, Se, and Te) Nanoplatelets to Reach Thicker Nanoplatelets and Homostructures with Confinement-Induced Intraparticle Type I Energy Level Alignment. Journal of the American Chemical Society, 2021, 143, 1863-1872.	13.7	23
50	Mercury Chalcogenide Nanoplateletâ€"Quantum Dot Heterostructures as a New Class of Continuously Tunable Bright Shortwave Infrared Emitters. Journal of Physical Chemistry Letters, 2020, 11, 3473-3480.	4.6	22
51	Electronic structure of CdSe-ZnS 2D nanoplatelets. Applied Physics Letters, 2017, 110, .	3.3	21
52	Strategy to overcome recombination limited photocurrent generation in CsPbX3 nanocrystal arrays. Applied Physics Letters, 2018, 112, .	3.3	19
53	Optoelectronic properties of methyl-terminated germanane. Applied Physics Letters, 2019, 115, .	3.3	18
54	Fine Structure and Spin Dynamics of Linearly Polarized Indirect Excitons in Two-Dimensional CdSe/CdTe Colloidal Heterostructures. ACS Nano, 2019, 13, 10140-10153.	14.6	18

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55	Impact of dimensionality and confinement on the electronic properties of mercury chalcogenide nanocrystals. Nanoscale, 2019, 11, 3905-3915.	5.6	18
56	Pushing Absorption of Perovskite Nanocrystals into the Infrared. Nano Letters, 2020, 20, 3999-4006.	9.1	18
57	Polyoxometalate as Control Agent for the Doping in HgSe Self-Doped Nanocrystals. Journal of Physical Chemistry C, 2018, 122, 26680-26685.	3.1	16
58	Seeded Growth of HgTe Nanocrystals for Shape Control and Their Use in Narrow Infrared Electroluminescence. Chemistry of Materials, 2021, 33, 2054-2061.	6.7	16
59	Optimized Infrared LED and Its Use in an Allâ€HgTe Nanocrystalâ€Based Active Imaging Setup. Advanced Optical Materials, 2022, 10, .	7.3	16
60	Near- to Long-Wave-Infrared Mercury Chalcogenide Nanocrystals from Liquid Mercury. Journal of Physical Chemistry C, 2020, 124, 8423-8430.	3.1	14
61	Optimized Cation Exchange for Mercury Chalcogenide 2D Nanoplatelets and Its Application for Alloys. Chemistry of Materials, 2021, 33, 9252-9261.	6.7	14
62	Emission State Structure and Linewidth Broadening Mechanisms in Type-II CdSe/CdTe Coreâ€"Crown Nanoplatelets: A Combined Theoreticalâ€"Single Nanocrystal Optical Study. Journal of Physical Chemistry C, 2020, 124, 17352-17363.	3.1	13
63	HgTe Nanocrystal-Based Photodiode for Extended Short-Wave Infrared Sensing with Optimized Electron Extraction and Injection. ACS Applied Nano Materials, 2022, 5, 8602-8611.	5.0	13
64	Strong Coupling of Nanoplatelets and Surface Plasmons on a Gold Surface. ACS Photonics, 2019, 6, 2643-2648.	6.6	12
65	Chiral Helices Formation by Self-Assembled Molecules on Semiconductor Flexible Substrates. ACS Nano, 2022, 16, 2901-2909.	14.6	12
66	Broadband Enhancement of Midâ€Wave Infrared Absorption in a Multiâ€Resonant Nanocrystalâ€Based Device. Advanced Optical Materials, 2022, 10, .	7.3	12
67	Guided-Mode Resonator Coupled with Nanocrystal Intraband Absorption. ACS Photonics, 2022, 9, 985-993.	6.6	10
68	Combined Computational and Experimental Study of CdSeS/ZnS Nanoplatelets: Structural, Vibrational, and Electronic Aspects of Coreâ€"Shell Interface Formation. Langmuir, 2018, 34, 13828-13836.	3.5	9
69	The complex optical index of PbS nanocrystal thin films and their use for short wave infrared sensor design. Nanoscale, 2022, 14, 2711-2721.	5.6	8
70	Nanocrystal-Based Active Photonics Device through Spatial Design of Light-Matter Coupling. ACS Photonics, 2022, 9, 2528-2535.	6.6	7
71	Particle-Level Engineering of Thermal Conductivity in Matrix-Embedded Semiconductor Nanocrystals. Nano Letters, 2012, 12, 5797-5801.	9.1	6
72	Publisherâ€™s Note: Observation of Size-Dependent Thermalization in CdSe Nanocrystals Using Time-Resolved Photoluminescence Spectroscopy [Phys. Rev. Lett.107, 177403 (2011)]. Physical Review Letters, 2011, 107, .	7.8	4

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73	Towards the modeling of quantum-dot sensitized solar cells: from structural and vibrational features to electron injection through lattice-mismatched interfaces. Journal of Materials Chemistry A, 2016, 4, 13081-13092.	10.3	4
74	Colloidal IIâ€“VIâ€”Epitaxial IIIâ€“V heterostructure: A strategy to expand InGaAs spectral response. Applied Physics Letters, 2022, 120, .	3.3	4
75	<i>Ex situ</i> and <i>in situ</i> sensitized quantum dot solar cells. Physica Status Solidi (B): Basic Research, 2017, 254, 1600443.	1.5	3
76	Azobenzenes as Light-Activable Carrier Density Switches in Nanocrystals. Journal of Physical Chemistry C, 2019, 123, 27257-27263.	3.1	3
77	HgTe, the Most Tunable Colloidal Material: from the Strong Confinement Regime to THz Material. MRS Advances, 2018, 3, 2913-2921.	0.9	2
78	Broadband Enhancement of Midâ€Wave Infrared Absorption in a Multiâ€Resonant Nanocrystalâ€Based Device (Advanced Optical Materials 9/2022). Advanced Optical Materials, 2022, 10, .	7.3	1