

Sandrine Ithurria

List of Publications by Year in descending order

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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	Colloidal II-VI Epitaxial III-V heterostructure: A strategy to expand InGaAs spectral response. Applied Physics Letters, 2022, 120, .	3.3	4
2	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
3	Chiral Helices Formation by Self-Assembled Molecules on Semiconductor Flexible Substrates. ACS Nano, 2022, 16, 2901-2909.	14.6	12
4	Guided-Mode Resonator Coupled with Nanocrystal Intraband Absorption. ACS Photonics, 2022, 9, 985-993.	6.6	10
5	Electroluminescence from nanocrystals above 2 μm . Nature Photonics, 2022, 16, 38-44.	31.4	25
6	Broadband Enhancement of Mid-Wave Infrared Absorption in a Multi-Resonant Nanocrystal-Based Device. Advanced Optical Materials, 2022, 10, .	7.3	12
7	Optimized Infrared LED and Its Use in an All-HgTe Nanocrystal-Based Active Imaging Setup. Advanced Optical Materials, 2022, 10, .	7.3	16
8	Broadband Enhancement of Mid-Wave Infrared Absorption in a Multi-Resonant Nanocrystal-Based Device (Advanced Optical Materials 9/2022). Advanced Optical Materials, 2022, 10, .	7.3	1
9	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
10	Nanocrystal-Based Active Photonics Device through Spatial Design of Light-Matter Coupling. ACS Photonics, 2022, 9, 2528-2535.	6.6	7
11	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
12	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
13	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
14	Mercury Chalcogenide Quantum Dots: Material Perspective for Device Integration. Chemical Reviews, 2021, 121, 3627-3700.	47.7	70
15	Optimized Cation Exchange for Mercury Chalcogenide 2D Nanoplatelets and Its Application for Alloys. Chemistry of Materials, 2021, 33, 9252-9261.	6.7	14
16	Emission State Structure and Linewidth Broadening Mechanisms in Type-II CdSe/CdTe Core-Crown Nanoplatelets: A Combined Theoretical-Single Nanocrystal Optical Study. Journal of Physical Chemistry C, 2020, 124, 17352-17363.	3.1	13
17	Electroluminescence from HgTe Nanocrystals and Its Use for Active Imaging. Nano Letters, 2020, 20, 6185-6190.	9.1	28
18	Near- to Long-Wave-Infrared Mercury Chalcogenide Nanocrystals from Liquid Mercury. Journal of Physical Chemistry C, 2020, 124, 8423-8430.	3.1	14

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19	Pushing Absorption of Perovskite Nanocrystals into the Infrared. <i>Nano Letters</i> , 2020, 20, 3999-4006.	9.1	18
20	Mercury Chalcogenide Nanoplatelets as Quantum Dot Heterostructures as a New Class of Continuously Tunable Bright Shortwave Infrared Emitters. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3473-3480.	4.6	22
21	Nanoplatelet-Based Light-Emitting Diode and Its Use in All-Nanocrystal LiFi-like Communication. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 22058-22065.	8.0	23
22	The Strong Confinement Regime in HgTe Two-Dimensional Nanoplatelets. <i>Journal of Physical Chemistry C</i> , 2020, 124, 23460-23468.	3.1	29
23	Optoelectronic properties of methyl-terminated germanane. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	18
24	Insights into the Formation Mechanism of CdSe Nanoplatelets Using in Situ X-ray Scattering. <i>Nano Letters</i> , 2019, 19, 6466-6474.	9.1	26
25	Azobenzenes as Light-Activable Carrier Density Switches in Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2019, 123, 27257-27263.	3.1	3
26	Strong Coupling of Nanoplatelets and Surface Plasmons on a Gold Surface. <i>ACS Photonics</i> , 2019, 6, 2643-2648.	6.6	12
27	Fine Structure and Spin Dynamics of Linearly Polarized Indirect Excitons in Two-Dimensional CdSe/CdTe Colloidal Heterostructures. <i>ACS Nano</i> , 2019, 13, 10140-10153.	14.6	18
28	Near Unity Absorption in Nanocrystal Based Short Wave Infrared Photodetectors Using Guided Mode Resonators. <i>ACS Photonics</i> , 2019, 6, 2553-2561.	6.6	44
29	Impact of dimensionality and confinement on the electronic properties of mercury chalcogenide nanocrystals. <i>Nanoscale</i> , 2019, 11, 3905-3915.	5.6	18
30	Field-Effect Transistor and Photo-Transistor of Narrow-Band-Gap Nanocrystal Arrays Using Ionic Glasses. <i>Nano Letters</i> , 2019, 19, 3981-3986.	9.1	23
31	A colloidal quantum dot infrared photodetector and its use for intraband detection. <i>Nature Communications</i> , 2019, 10, 2125.	12.8	155
32	Halide Ligands To Release Strain in Cadmium Chalcogenide Nanoplatelets and Achieve High Brightness. <i>ACS Nano</i> , 2019, 13, 5326-5334.	14.6	71
33	Doping as a Strategy to Tune Color of 2D Colloidal Nanoplatelets. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 10128-10134.	8.0	48
34	Electronic structure robustness and design rules for 2D colloidal heterostructures. <i>Journal of Applied Physics</i> , 2018, 123, .	2.5	29
35	Band Edge Dynamics and Multiexciton Generation in Narrow Band Gap HgTe Nanocrystals. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 11880-11887.	8.0	23
36	Strategy to overcome recombination limited photocurrent generation in CsPbX ₃ nanocrystal arrays. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	19

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37	Polyoxometalate as Control Agent for the Doping in HgSe Self-Doped Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2018, 122, 26680-26685.	3.1	16
38	Exciton-Phonon Interactions Govern Charge-Transfer-State Dynamics in CdSe/CdTe Two-Dimensional Colloidal Heterostructures. <i>Journal of the American Chemical Society</i> , 2018, 140, 14097-14111.	13.7	30
39	Combined Computational and Experimental Study of CdSeS/ZnS Nanoplatelets: Structural, Vibrational, and Electronic Aspects of Core-Shell Interface Formation. <i>Langmuir</i> , 2018, 34, 13828-13836.	3.5	9
40	Design of a Unipolar Barrier for a Nanocrystal-Based Short-Wave Infrared Photodiode. <i>ACS Photonics</i> , 2018, 5, 4569-4576.	6.6	49
41	Wave-Function Engineering in HgSe/HgTe Colloidal Heterostructures To Enhance Mid-infrared Photoconductive Properties. <i>Nano Letters</i> , 2018, 18, 4590-4597.	9.1	24
42	Coupled HgSe Colloidal Quantum Wells through a Tunable Barrier: A Strategy To Uncouple Optical and Transport Band Gap. <i>Chemistry of Materials</i> , 2018, 30, 4065-4072.	6.7	32
43	HgTe, the Most Tunable Colloidal Material: from the Strong Confinement Regime to THz Material. <i>MRS Advances</i> , 2018, 3, 2913-2921.	0.9	2
44	Intraband Mid-Infrared Transitions in Ag ₂ Se Nanocrystals: Potential and Limitations for Hg-Free Low-Cost Photodetection. <i>Journal of Physical Chemistry C</i> , 2018, 122, 18161-18167.	3.1	59
45	Short Wave Infrared Devices Based on HgTe Nanocrystals with Air Stable Performances. <i>Journal of Physical Chemistry C</i> , 2018, 122, 14979-14985.	3.1	49
46	Electronic structure of CdSe-ZnS 2D nanoplatelets. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	21
47	Charge Dynamics and Optoelectronic Properties in HgTe Colloidal Quantum Wells. <i>Nano Letters</i> , 2017, 17, 4067-4074.	9.1	48
48	HgSe Self-Doped Nanocrystals as a Platform to Investigate the Effects of Vanishing Confinement. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 36173-36180.	8.0	40
49	Engineering Bicolor Emission in 2D Core/Crown CdSe/CdSe _x Te _x Nanoplatelet Heterostructures Using Band-Offset Tuning. <i>Journal of Physical Chemistry C</i> , 2017, 121, 24816-24823.	3.1	26
50	Ex situ and in situ sensitized quantum dot solar cells. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1600443.	1.5	3
51	From dilute isovalent substitution to alloying in CdSeTe nanoplatelets. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 15295-15303.	2.8	33
52	Strongly Confined HgTe 2D Nanoplatelets as Narrow Near-Infrared Emitters. <i>Journal of the American Chemical Society</i> , 2016, 138, 10496-10501.	13.7	98
53	Surface Control of Doping in Self-Doped Nanocrystals. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 27122-27128.	8.0	66
54	Towards the modeling of quantum-dot sensitized solar cells: from structural and vibrational features to electron injection through lattice-mismatched interfaces. <i>Journal of Materials Chemistry A</i> , 2016, 4, 13081-13092.	10.3	4

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55	Two-Dimensional Colloidal Nanocrystals. <i>Chemical Reviews</i> , 2016, 116, 10934-10982.	47.7	412
56	Metallic Functionalization of CdSe 2D Nanoplatelets and Its Impact on Electronic Transport. <i>Journal of Physical Chemistry C</i> , 2016, 120, 12351-12361.	3.1	29
57	Infrared Photodetection Based on Colloidal Quantum-Dot Films with High Mobility and Optical Absorption up to THz. <i>Nano Letters</i> , 2016, 16, 1282-1286.	9.1	150
58	Two-Dimensional Colloidal Metal Chalcogenides Semiconductors: Synthesis, Spectroscopy, and Applications. <i>Accounts of Chemical Research</i> , 2015, 48, 22-30.	15.6	248
59	Monitoring Morphological Changes in 2D Monolayer Semiconductors Using Atom-Thick Plasmonic Nanocavities. <i>ACS Nano</i> , 2015, 9, 825-830.	14.6	101
60	Ultrathin CdSe in Plasmonic Nanogaps for Enhanced Photocatalytic Water Splitting. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1099-1103.	4.6	75
61	Real-Time in Situ Probing of High-Temperature Quantum Dots Solution Synthesis. <i>Nano Letters</i> , 2015, 15, 2620-2626.	9.1	84
62	Investigating the n- and p-Type Electrolytic Charging of Colloidal Nanoplatelets. <i>Journal of Physical Chemistry C</i> , 2015, 119, 21795-21799.	3.1	57
63	Electrolyte-Gated Colloidal Nanoplatelets-Based Phototransistor and Its Use for Bicolor Detection. <i>Nano Letters</i> , 2014, 14, 2715-2719.	9.1	94
64	Electrolyte-Gated Field Effect Transistor to Probe the Surface Defects and Morphology in Films of Thick CdSe Colloidal Nanoplatelets. <i>ACS Nano</i> , 2014, 8, 3813-3820.	14.6	61
65	Efficient Exciton Concentrators Built from Colloidal Core/Crown CdSe/CdS Semiconductor Nanoplatelets. <i>Nano Letters</i> , 2014, 14, 207-213.	9.1	224
66	Type-II CdSe/CdTe Core/Crown Semiconductor Nanoplatelets. <i>Journal of the American Chemical Society</i> , 2014, 136, 16430-16438.	13.7	153
67	Selective Electrophoretic Deposition of CdSe Nanoplatelets. <i>Chemistry of Materials</i> , 2014, 26, 4514-4520.	6.7	36
68	Flat Colloidal Semiconductor Nanoplatelets. <i>Chemistry of Materials</i> , 2013, 25, 1262-1271.	6.7	135
69	Phonon Line Emission Revealed by Self-Assembly of Colloidal Nanoplatelets. <i>ACS Nano</i> , 2013, 7, 3332-3340.	14.6	90
70	Two-Dimensional Growth of CdSe Nanocrystals, from Nanoplatelets to Nanosheets. <i>Chemistry of Materials</i> , 2013, 25, 639-645.	6.7	124
71	Colloidal Atomic Layer Deposition (c-ALD) using Self-Limiting Reactions at Nanocrystal Surface Coupled to Phase Transfer between Polar and Nonpolar Media. <i>Journal of the American Chemical Society</i> , 2012, 134, 18585-18590.	13.7	297
72	Carrier Cooling in Colloidal Quantum Wells. <i>Nano Letters</i> , 2012, 12, 6158-6163.	9.1	105

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73	Particle-Level Engineering of Thermal Conductivity in Matrix-Embedded Semiconductor Nanocrystals. Nano Letters, 2012, 12, 5797-5801.	9.1	6
74	Low Voltage, Hysteresis Free, and High Mobility Transistors from All-Inorganic Colloidal Nanocrystals. Nano Letters, 2012, 12, 1813-1820.	9.1	137
75	Observation of Size-Dependent Thermalization in CdSe Nanocrystals Using Time-Resolved Photoluminescence Spectroscopy. Physical Review Letters, 2011, 107, 177403.	7.8	39
76	Publisher'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
77	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
78	$\frac{Mn}{Mn+2}$ a Radial Pressure Gauge in Colloidal Core/Shell Nanocrystals. Physical Review Letters, 2007, 99, 265501.	7.8	1