Nicolas Goubet

List of Publications by Year
in descending order

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50 papers	1,741 citations	257357 24 h-index	276775 41 g-index
50 all docs	50 docs citations	50 times ranked	1881 citing authors

#	Article	IF	Citations
1	A colloidal quantum dot infrared photodetector and its use for intraband detection. Nature Communications, 2019, 10, 2125.	5.8	155
2	Terahertz HgTe Nanocrystals: Beyond Confinement. Journal of the American Chemical Society, 2018, 140, 5033-5036.	6.6	107
3	Which Forces Control Supracrystal Nucleation in Organic Media?. Advanced Functional Materials, 2011, 21, 2693-2704.	7.8	102
4	Simultaneous Growths of Gold Colloidal Crystals. Journal of the American Chemical Society, 2012, 134, 3714-3719.	6.6	89
5	Modulating Physical Properties of Isolated and Self-Assembled Nanocrystals through Change in Nanocrystallinity. Nano Letters, 2013, 13, 504-508.	4.5	73
6	Mercury Chalcogenide Quantum Dots: Material Perspective for Device Integration. Chemical Reviews, 2021, 121, 3627-3700.	23.0	70
7	Exciton-phonon coupling in a CsPbBr3 single nanocrystal. Applied Physics Letters, 2018, 112, .	1.5	67
8	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.	1.5	59
9	HgTe Nanocrystals for SWIR Detection and Their Integration up to the Focal Plane Array. ACS Applied Materials & Interfaces, 2019, 11, 33116-33123.	4.0	53
10	Crystallinity Dependence of the Plasmon Resonant Raman Scattering by Anisotropic Gold Nanocrystals. ACS Nano, 2010, 4, 3489-3497.	7.3	52
11	Road Map for Nanocrystal Based Infrared Photodetectors. Frontiers in Chemistry, 2018, 6, 575.	1.8	52
12	HgTe Nanocrystal Inks for Extended Shortâ€Wave Infrared Detection. Advanced Optical Materials, 2019, 7, 1900348.	3.6	52
13	Crystallinity Segregation upon Selective Self-Assembling of Gold Colloidal Single Nanocrystals. Nano Letters, 2012, 12, 5292-5298.	4.5	50
14	Design of a Unipolar Barrier for a Nanocrystal-Based Short-Wave Infrared Photodiode. ACS Photonics, 2018, 5, 4569-4576.	3.2	49
15	Short Wave Infrared Devices Based on HgTe Nanocrystals with Air Stable Performances. Journal of Physical Chemistry C, 2018, 122, 14979-14985.	1.5	49
16	Soft Supracrystals of Au Nanocrystals with Tunable Mechanical Properties. Advanced Functional Materials, 2013, 23, 2315-2321.	7.8	44
17	Near Unity Absorption in Nanocrystal Based Short Wave Infrared Photodetectors Using Guided Mode Resonators. ACS Photonics, 2019, 6, 2553-2561.	3.2	44
18	Hierarchy in Au Nanocrystal Ordering in a Supracrystal: II. Control of Interparticle Distances. Langmuir, 2013, 29, 13576-13581.	1.6	43

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19	Unexpected Electronic Properties of Micrometer-Thick Supracrystals of Au Nanocrystals. Nano Letters, 2012, 12, 2051-2055.	4.5	42
20	HgSe Self-Doped Nanocrystals as a Platform to Investigate the Effects of Vanishing Confinement. ACS Applied Materials & Interfaces, 2017, 9, 36173-36180.	4.0	40
21	A Way To Control the Gold Nanocrystals Size: Using Seeds with Different Sizes and Subjecting Them to Mild Annealing. ACS Nano, 2009, 3, 3622-3628.	7.3	37
22	Probing Charge Carrier Dynamics to Unveil the Role of Surface Ligands in HgTe Narrow Band Gap Nanocrystals. Journal of Physical Chemistry C, 2018, 122, 859-865.	1.5	37
23	How to Tune the Au Internanocrystal Distance in Two-Dimensional Self-Ordered Superlattices. Journal of Physical Chemistry Letters, 2010, 1, 149-154.	2.1	35
24	Emergence of intraband transitions in colloidal nanocrystals [Invited]. Optical Materials Express, 2018, 8, 1174.	1.6	27
25	Wave-Function Engineering in HgSe/HgTe Colloidal Heterostructures To Enhance Mid-infrared Photoconductive Properties. Nano Letters, 2018, 18, 4590-4597.	4.5	24
26	Band Edge Dynamics and Multiexciton Generation in Narrow Band Gap HgTe Nanocrystals. ACS Applied Materials & Interfaces, 2018, 10, 11880-11887.	4.0	23
27	Field-Effect Transistor and Photo-Transistor of Narrow-Band-Gap Nanocrystal Arrays Using Ionic Glasses. Nano Letters, 2019, 19, 3981-3986.	4.5	23
28	Assessing the relevance of building block crystallinity for tuning the stiffness of gold nanocrystal superlattices. Nanoscale, 2013, 5, 9523.	2.8	21
29	Negative supracrystals inducing a FCC-BCC transition in gold nanocrystal superlattices. Nano Research, 2014, 7, 171-179.	5.8	21
30	Strategy to overcome recombination limited photocurrent generation in CsPbX3 nanocrystal arrays. Applied Physics Letters, 2018, 112, .	1.5	19
31	Transport in ITO Nanocrystals with Short- to Long-Wave Infrared Absorption for Heavy-Metal-Free Infrared Photodetection. ACS Applied Nano Materials, 2019, 2, 1621-1630.	2.4	19
32	From Chains to Monolayers: Nanoparticle Assembly Driven by Smectic Topological Defects. Nano Letters, 2020, 20, 1598-1606.	4.5	19
33	Impact of dimensionality and confinement on the electronic properties of mercury chalcogenide nanocrystals. Nanoscale, 2019, 11, 3905-3915.	2.8	18
34	Effect of Pressure on Interband and Intraband Transition of Mercury Chalcogenide Quantum Dots. Journal of Physical Chemistry C, 2019, 123, 13122-13130.	1.5	18
35	Electronic properties probed by scanning tunneling spectroscopy: From isolated gold nanocrystal to well-defined supracrystals. Physical Review B, 2012, 86, .	1.1	14
36	Near- to Long-Wave-Infrared Mercury Chalcogenide Nanocrystals from Liquid Mercury. Journal of Physical Chemistry C, 2020, 124, 8423-8430.	1.5	14

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37	Potential of Colloidal Quantum Dot Based Solar Cells for Near-Infrared Active Detection. ACS Photonics, 2020, 7, 272-278.	3.2	13
38	Spontaneous Formation of High-Index Planes in Gold Single Domain Nanocrystal Superlattices. Nano Letters, 2014, 14, 6632-6638.	4.5	12
39	Impact of nanocrystallinity segregation on the growth and morphology of nanocrystal superlattices. Nano Research, 2013, 6, 611-618.	5.8	11
40	Few picosecond dynamics of intraband transitions in THz HgTe nanocrystals. Nanophotonics, 2021, 10, 2753-2763.	2.9	10
41	Inelastic Light Scattering by Long Narrow Gold Nanocrystals: When Size, Shape, Crystallinity, and Assembly Matter. ACS Nano, 2020, 14, 4395-4404.	7.3	9
42	Simultaneous Interfacial and Precipitated Supracrystals of Au Nanocrystals: Experiments and Simulations. Journal of Physical Chemistry B, 2013, 117, 4510-4516.	1.2	8
43	Versatile and robust synthesis process for the fine control of the chemical composition and core-crystallinity of spherical coreâ€“shell Au@Ag nanoparticles. Nanotechnology, 2021, 32, 095604.	1.3	5
44	Azobenzenes as Light-Activable Carrier Density Switches in Nanocrystals. Journal of Physical Chemistry C, 2019, 123, 27257-27263.	1.5	3
45	Designing Photovoltaic Devices Using HgTe Nanocrystals for Short and Midâ€Wave Infrared Detection. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900449.	0.8	3
46	Nano-contact microscopy of supracrystals. Beilstein Journal of Nanotechnology, 2015, 6, 1229-1236.	1.5	2
47	HgTe, the Most Tunable Colloidal Material: from the Strong Confinement Regime to THz Material. MRS Advances, 2018, 3, 2913-2921.	0.5	2
48	Interactions Between Topological Defects and Nanoparticles. Frontiers in Physics, 2020, 7, .	1.0	2
49	Crystal growth from cluster to bulk materials via nanomaterials. Zeitschrift Fur Kristallographie - Crystalline Materials, 2007, 222, 663-667.	0.4	0
50	Large HgTe nanocrystals for THz technology. , 2021, , .		0