Damien Alloyeau

List of Publications by Year
in descending order

53 papers	3,144 citations	257450 24 h-index	214800 47 g-index
54 all docs	54 docs citations	54 times ranked	5649 citing authors

#	Article	IF	Citations
1	Effect of size on the surface energy of noble metal nanoparticles from analytical and numerical approaches. Physical Review B, 2022, 105, .	3.2	10
2	Two-step assembly kinetics of gold nanoparticles. Journal of Materials Chemistry C, 2021, 9, 1730-1739.	5.5	5
3	Studying the Effects of Temperature on the Nucleation and Growth of Nanoparticles by Liquid-Cell Transmission Electron Microscopy. Journal of Visualized Experiments, 2021, , .	0.3	2
4	Quantitative In Situ Visualization of Thermal Effects on the Formation of Gold Nanocrystals in Solution. Advanced Materials, 2021, 33, e2102514.	21.0	15
5	The Role of Functionalized Organic Surfaces in Metal Biomineralization: Insights from Liquid-Cell STEM Experiments. Microscopy and Microanalysis, 2021, 27, 81-82.	0.4	0
6	Degradation of ZnGa₂O₄:Cr³⁺ luminescent nanoparticles in lysosomal-like medium. Nanoscale, 2020, 12, 1967-1974.	5.6	23
7	Unexpected intracellular biodegradation and recrystallization of gold nanoparticles. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 103-113.	7.1	147
8	Selective shortening of gold nanorods: when surface functionalization dictates the reactivity of nanostructures. Nanoscale, 2020, 12, 22658-22667.	5.6	13
9	A deep learning approach for determining the chiral indices of carbon nanotubes from high-resolution transmission electron microscopy images. Carbon, 2020, 169, 465-474.	10.3	27
10	Revealing the Dynamics of Functional Nanomaterials in Their Formation and Application Media with Liquid and Gas-phase TEM. Microscopy and Microanalysis, 2020, 26, 196-198.	0.4	1
11	Real-Time In Situ Observations Reveal a Double Role for Ascorbic Acid in the Anisotropic Growth of Silver on Gold. Journal of Physical Chemistry Letters, 2020, 11, 2830-2837.	4.6	21
12	In situ monitoring of exopolymer-dependent Mn mineralization on bacterial surfaces. Science Advances, 2020, 6, eaaz3125.	10.3	14
13	Quantitative insights into the growth mechanisms of nanopores in hexagonal boron nitride. Physical Review Materials, 2020, 4, .	2.4	8
14	Reshaping Dynamics of Gold Nanoparticles under H₂ and O₂ at Atmospheric Pressure. ACS Nano, 2019, 13, 2024-2033.	14.6	32
15	Probing the Dynamics and the Atomic Structure of Gold Nanorods in Solution with Liquid-Cell TEM. Microscopy and Microanalysis, 2019, 25, 45-46.	0.4	0
16	Structural analysis of single nanoparticles in liquid by low-dose STEM nanodiffraction. Micron, 2019, 116, 30-35.	2.2	7
17	Attachment of iron oxide nanoparticles to carbon nanofibers studied by in-situ liquid phase transmission electron microscopy. Micron, 2019, 117, 40-46.	2.2	11
18	Thermodynamics of faceted palladium(â€“gold) nanoparticles supported on rutile titania nanorods studied using transmission electron microscopy. Physical Chemistry Chemical Physics, 2018, 20, 13030-13037.	2.8	3

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19	Direct Measurement of the Surface Energy of Bimetallic Nanoparticles: Evidence of Vegardâ€™s Rulelike Dependence. Physical Review Letters, 2018, 120, 025901.	7.8	19
20	Monitoring the dynamics of cell-derived extracellular vesicles at the nanoscale by liquid-cell transmission electron microscopy. Nanoscale, 2018, 10, 1234-1244.	5.6	28
21	Driving reversible redox reactions at solidâ€“liquid interfaces with the electron beam of a transmission electron microscope. Journal of Microscopy, 2018, 269, 127-133.	1.8	12
22	Structural Properties of Catalytically Active Bimetallic Goldâ€“Palladium Nanoparticles Synthesized on Rutile Titania Nanorods by Pulsed Laser Deposition. Crystal Growth and Design, 2018, 18, 68-76.	3.0	8
23	Luminescence properties of ZnGa₂O₄:Cr³⁺,Bi³⁺ nanophosphors for thermometry applications. RSC Advances, 2018, 8, 41767-41774.	3.6	42
24	Thermoresponsive Gel Embedded with Adipose Stem-Cell-Derived Extracellular Vesicles Promotes Esophageal Fistula Healing in a Thermo-Actuated Delivery Strategy. ACS Nano, 2018, 12, 9800-9814.	14.6	60
25	Challenges and Opportunities in Transmission Electron Microscopy for Revealing the Fate of Inorganic Nanomaterials in Living Beings. Microscopy and Microanalysis, 2018, 24, 1694-1695.	0.4	0
26	Physiological Remediation of Cobalt Ferrite Nanoparticles by Ferritin. Scientific Reports, 2017, 7, 40075.	3.3	24
27	Exploring the Formation of Symmetric Gold Nanostars by Liquid-Cell Transmission Electron Microscopy. Nano Letters, 2017, 17, 4194-4201.	9.1	56
28	Structural Transformations of Au and Au-Cu Nanoparticles during Liquid-Phase Synthesis and Redox Reactions in Gaseous Environment. Microscopy and Microanalysis, 2017, 23, 1860-1861.	0.4	0
29	Ferritin Protein Regulates the Degradation of Iron Oxide Nanoparticles. Small, 2017, 13, 1602030.	10.0	69
30	Growth of dendritic nanostructures by liquid-cell transmission electron microscopy: a reflection of the electron-irradiation history. Advanced Structural and Chemical Imaging, 2016, 2, .	4.0	19
31	Shape Transformations During the Growth of Gold Nanostructures. Microscopy and Microanalysis, 2016, 22, 38-39.	0.4	0
32	Ostwald-Driven Phase Separation in Bimetallic Nanoparticle Assemblies. ACS Nano, 2016, 10, 4127-4133.	14.6	19
33	In vivo degeneration and the fate of inorganic nanoparticles. Chemical Society Reviews, 2016, 45, 2440-2457.	38.1	355
34	Gadoliniumâ€Doped Persistent Nanophosphors as Versatile Tool for Multimodal In Vivo Imaging. Advanced Functional Materials, 2015, 25, 331-338.	14.9	98
35	Unravelling Kinetic and Thermodynamic Effects on the Growth of Gold Nanoplates by Liquid Transmission Electron Microscopy. Nano Letters, 2015, 15, 2574-2581.	9.1	133
36	The One Year Fate of Iron Oxide Coated Gold Nanoparticles in Mice. ACS Nano, 2015, 9, 7925-7939.	14.6	180

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37	Carbon Nanotube Degradation in Macrophages: Live Nanoscale Monitoring and Understanding of Biological Pathway. ACS Nano, 2015, 9, 10113-10124.	14.6	143
38	Long-range chemical orders in Auâ€“Pd nanoparticles revealed by aberration-corrected electron microscopy. Nanoscale, 2014, 6, 10423-10430.	5.6	25
39	Biodegradation Mechanisms of Iron Oxide Monocrystalline Nanoflowers and Tunable Shield Effect of Gold Coating. Small, 2014, 10, 3325-3337.	10.0	43
40	Random vs realistic amorphous carbon models for high resolution microscopy and electron diffraction. Journal of Applied Physics, 2013, 114, .	2.5	18
41	Biodegradation of Iron Oxide Nanocubes: High-Resolution In Situ Monitoring. ACS Nano, 2013, 7, 3939-3952.	14.6	233
42	Performances of an 80â€“200 kV microscope employing a cold-FEG and an aberration-corrected objective lens. Microscopy (Oxford, England), 2013, 62, 283-293.	1.5	41
43	Following Ostwald ripening in nanoalloys by high-resolution imaging with single-atom chemical sensitivity. Applied Physics Letters, 2012, 101, 121920.	3.3	22
44	Transition from coreâ€“shell to Janus chemical configuration for bimetallic nanoparticles. Nanoscale, 2012, 4, 3381.	5.6	163
45	Transmission Electron Microscopy: A Multifunctional Tool for the Atomic-scale Characterization of Nanoalloys. Engineering Materials, 2012, , 113-157.	0.6	2
46	Long term in vivo biotransformation of iron oxide nanoparticles. Biomaterials, 2011, 32, 3988-3999.	11.4	303
47	Ostwald Ripening in Nanoalloys: When Thermodynamics Drives a Size-Dependent Particle Composition. Physical Review Letters, 2010, 105, 255901.	7.8	105
48	Aberration-corrected Electron Microscopy Imaging for Nanoelectronics Applications. , 2009, , .		4
49	Comparing electron tomography and HRTEM slicing methods as tools to measure the thickness of nanoparticles. Ultramicroscopy, 2009, 109, 788-796.	1.9	30
50	Size and shape effects on the orderâ€“disorder phase transition in CoPt nanoparticles. Nature Materials, 2009, 8, 940-946.	27.5	352
51	STEM nanodiffraction technique for structural analysis of CoPt nanoparticles. Ultramicroscopy, 2008, 108, 656-662.	1.9	39
52	Growth and structural properties of CuAg and CoPt bimetallic nanoparticles. Faraday Discussions, 2008, 138, 375-391.	3.2	110
53	A TEMin situexperiment as a guideline for the synthesis of as-grown ordered CoPt nanoparticles. Nanotechnology, 2007, 18, 375301.	2.6	50