

# Damien Alloyeau

## List of Publications by Year in descending order

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Version: 2024-02-01

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	In vivo degeneration and the fate of inorganic nanoparticles. <i>Chemical Society Reviews</i> , 2016, 45, 2440-2457.	38.1	355
2	Size and shape effects on the order–disorder phase transition in CoPt nanoparticles. <i>Nature Materials</i> , 2009, 8, 940-946.	27.5	352
3	Long term in vivo biotransformation of iron oxide nanoparticles. <i>Biomaterials</i> , 2011, 32, 3988-3999.	11.4	303
4	Biodegradation of Iron Oxide Nanocubes: High-Resolution <i>In Situ</i> Monitoring. <i>ACS Nano</i> , 2013, 7, 3939-3952.	14.6	233
5	The One Year Fate of Iron Oxide Coated Gold Nanoparticles in Mice. <i>ACS Nano</i> , 2015, 9, 7925-7939.	14.6	180
6	Transition from core–shell to Janus chemical configuration for bimetallic nanoparticles. <i>Nanoscale</i> , 2012, 4, 3381.	5.6	163
7	Unexpected intracellular biodegradation and recrystallization of gold nanoparticles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 103-113.	7.1	147
8	Carbon Nanotube Degradation in Macrophages: Live Nanoscale Monitoring and Understanding of Biological Pathway. <i>ACS Nano</i> , 2015, 9, 10113-10124.	14.6	143
9	Unravelling Kinetic and Thermodynamic Effects on the Growth of Gold Nanoplates by Liquid Transmission Electron Microscopy. <i>Nano Letters</i> , 2015, 15, 2574-2581.	9.1	133
10	Growth and structural properties of CuAg and CoPt bimetallic nanoparticles. <i>Faraday Discussions</i> , 2008, 138, 375-391.	3.2	110
11	Ostwald Ripening in Nanoalloys: When Thermodynamics Drives a Size-Dependent Particle Composition. <i>Physical Review Letters</i> , 2010, 105, 255901.	7.8	105
12	Gadolinium–Doped Persistent Nanophosphors as Versatile Tool for Multimodal In Vivo Imaging. <i>Advanced Functional Materials</i> , 2015, 25, 331-338.	14.9	98
13	Ferritin Protein Regulates the Degradation of Iron Oxide Nanoparticles. <i>Small</i> , 2017, 13, 1602030.	10.0	69
14	Thermoresponsive Gel Embedded with Adipose Stem-Cell-Derived Extracellular Vesicles Promotes Esophageal Fistula Healing in a Thermo-Actuated Delivery Strategy. <i>ACS Nano</i> , 2018, 12, 9800-9814.	14.6	60
15	Exploring the Formation of Symmetric Gold Nanostars by Liquid-Cell Transmission Electron Microscopy. <i>Nano Letters</i> , 2017, 17, 4194-4201.	9.1	56
16	A TEM <i>in situ</i> experiment as a guideline for the synthesis of as-grown ordered CoPt nanoparticles. <i>Nanotechnology</i> , 2007, 18, 375301.	2.6	50
17	Biodegradation Mechanisms of Iron Oxide Monocrystalline Nanoflowers and Tunable Shield Effect of Gold Coating. <i>Small</i> , 2014, 10, 3325-3337.	10.0	43
18	Luminescence properties of ZnGa <sub>2</sub> O <sub>4</sub> :Cr <sup>3+</sup> , Bi <sup>3+</sup> nanophosphors for thermometry applications. <i>RSC Advances</i> , 2018, 8, 41767-41774.	3.6	42

#	ARTICLE	IF	CITATIONS
19	Performances of an 80â€“200 kV microscope employing a cold-FEG and an aberration-corrected objective lens. <i>Microscopy (Oxford, England)</i> , 2013, 62, 283-293.	1.5	41
20	STEM nanodiffraction technique for structural analysis of CoPt nanoparticles. <i>Ultramicroscopy</i> , 2008, 108, 656-662.	1.9	39
21	Reshaping Dynamics of Gold Nanoparticles under H <sub>2</sub> and O <sub>2</sub> at Atmospheric Pressure. <i>ACS Nano</i> , 2019, 13, 2024-2033.	14.6	32
22	Comparing electron tomography and HRTEM slicing methods as tools to measure the thickness of nanoparticles. <i>Ultramicroscopy</i> , 2009, 109, 788-796.	1.9	30
23	Monitoring the dynamics of cell-derived extracellular vesicles at the nanoscale by liquid-cell transmission electron microscopy. <i>Nanoscale</i> , 2018, 10, 1234-1244.	5.6	28
24	A deep learning approach for determining the chiral indices of carbon nanotubes from high-resolution transmission electron microscopy images. <i>Carbon</i> , 2020, 169, 465-474.	10.3	27
25	Long-range chemical orders in Auâ€“Pd nanoparticles revealed by aberration-corrected electron microscopy. <i>Nanoscale</i> , 2014, 6, 10423-10430.	5.6	25
26	Physiological Remediation of Cobalt Ferrite Nanoparticles by Ferritin. <i>Scientific Reports</i> , 2017, 7, 40075.	3.3	24
27	Degradation of ZnGa <sub>2</sub> O <sub>4</sub> :Cr <sup>3+</sup> luminescent nanoparticles in lysosomal-like medium. <i>Nanoscale</i> , 2020, 12, 1967-1974.	5.6	23
28	Following Ostwald ripening in nanoalloys by high-resolution imaging with single-atom chemical sensitivity. <i>Applied Physics Letters</i> , 2012, 101, 121920.	3.3	22
29	Real-Time <i>In Situ</i> Observations Reveal a Double Role for Ascorbic Acid in the Anisotropic Growth of Silver on Gold. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 2830-2837.	4.6	21
30	Growth of dendritic nanostructures by liquid-cell transmission electron microscopy: a reflection of the electron-irradiation history. <i>Advanced Structural and Chemical Imaging</i> , 2016, 2, .	4.0	19
31	Ostwald-Driven Phase Separation in Bimetallic Nanoparticle Assemblies. <i>ACS Nano</i> , 2016, 10, 4127-4133.	14.6	19
32	Direct Measurement of the Surface Energy of Bimetallic Nanoparticles: Evidence of Vegardâ€™s Rule-like Dependence. <i>Physical Review Letters</i> , 2018, 120, 025901.	7.8	19
33	Random vs realistic amorphous carbon models for high resolution microscopy and electron diffraction. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	18
34	Quantitative In Situ Visualization of Thermal Effects on the Formation of Gold Nanocrystals in Solution. <i>Advanced Materials</i> , 2021, 33, e2102514.	21.0	15
35	In situ monitoring of exopolymer-dependent Mn mineralization on bacterial surfaces. <i>Science Advances</i> , 2020, 6, eaaz3125.	10.3	14
36	Selective shortening of gold nanorods: when surface functionalization dictates the reactivity of nanostructures. <i>Nanoscale</i> , 2020, 12, 22658-22667.	5.6	13

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37	Driving reversible redox reactions at solid-liquid interfaces with the electron beam of a transmission electron microscope. <i>Journal of Microscopy</i> , 2018, 269, 127-133.	1.8	12
38	Attachment of iron oxide nanoparticles to carbon nanofibers studied by in-situ liquid phase transmission electron microscopy. <i>Micron</i> , 2019, 117, 40-46.	2.2	11
39	Effect of size on the surface energy of noble metal nanoparticles from analytical and numerical approaches. <i>Physical Review B</i> , 2022, 105, .	3.2	10
40	Structural Properties of Catalytically Active Bimetallic Gold-Palladium Nanoparticles Synthesized on Rutile Titania Nanorods by Pulsed Laser Deposition. <i>Crystal Growth and Design</i> , 2018, 18, 68-76.	3.0	8
41	Quantitative insights into the growth mechanisms of nanopores in hexagonal boron nitride. <i>Physical Review Materials</i> , 2020, 4, .	2.4	8
42	Structural analysis of single nanoparticles in liquid by low-dose STEM nanodiffraction. <i>Micron</i> , 2019, 116, 30-35.	2.2	7
43	Two-step assembly kinetics of gold nanoparticles. <i>Journal of Materials Chemistry C</i> , 2021, 9, 1730-1739.	5.5	5
44	Aberration-corrected Electron Microscopy Imaging for Nanoelectronics Applications. , 2009, , .		4
45	Thermodynamics of faceted palladium-gold nanoparticles supported on rutile titania nanorods studied using transmission electron microscopy. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 13030-13037.	2.8	3
46	Studying the Effects of Temperature on the Nucleation and Growth of Nanoparticles by Liquid-Cell Transmission Electron Microscopy. <i>Journal of Visualized Experiments</i> , 2021, , .	0.3	2
47	Transmission Electron Microscopy: A Multifunctional Tool for the Atomic-scale Characterization of Nanoalloys. <i>Engineering Materials</i> , 2012, , 113-157.	0.6	2
48	Revealing the Dynamics of Functional Nanomaterials in Their Formation and Application Media with Liquid and Gas-phase TEM. <i>Microscopy and Microanalysis</i> , 2020, 26, 196-198.	0.4	1
49	Shape Transformations During the Growth of Gold Nanostructures. <i>Microscopy and Microanalysis</i> , 2016, 22, 38-39.	0.4	0
50	Structural Transformations of Au and Au-Cu Nanoparticles during Liquid-Phase Synthesis and Redox Reactions in Gaseous Environment. <i>Microscopy and Microanalysis</i> , 2017, 23, 1860-1861.	0.4	0
51	Challenges and Opportunities in Transmission Electron Microscopy for Revealing the Fate of Inorganic Nanomaterials in Living Beings. <i>Microscopy and Microanalysis</i> , 2018, 24, 1694-1695.	0.4	0
52	Probing the Dynamics and the Atomic Structure of Gold Nanorods in Solution with Liquid-Cell TEM. <i>Microscopy and Microanalysis</i> , 2019, 25, 45-46.	0.4	0
53	The Role of Functionalized Organic Surfaces in Metal Biomineralization: Insights from Liquid-Cell STEM Experiments. <i>Microscopy and Microanalysis</i> , 2021, 27, 81-82.	0.4	0