

# Guillaume Baffou

## List of Publications by Citations

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55  
papers

5,294  
citations

29  
h-index

58  
g-index

58  
ext. papers

6,378  
ext. citations

9.1  
avg, IF

6.42  
L-index

#	Paper	IF	Citations
55	Thermo-plasmonics: using metallic nanostructures as nano-sources of heat. <i>Laser and Photonics Reviews</i> , <b>2013</b> , 7, 171-187	8.3	800
54	Nanoscale control of optical heating in complex plasmonic systems. <i>ACS Nano</i> , <b>2010</b> , 4, 709-16	16.7	484
53	Nanoplasmonics for chemistry. <i>Chemical Society Reviews</i> , <b>2014</b> , 43, 3898-907	58.5	474
52	Heat generation in plasmonic nanostructures: Influence of morphology. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 153109	3.4	371
51	Mapping intracellular temperature using green fluorescent protein. <i>Nano Letters</i> , <b>2012</b> , 12, 2107-11	11.5	302
50	Photoinduced heating of nanoparticle arrays. <i>ACS Nano</i> , <b>2013</b> , 7, 6478-88	16.7	251
49	Plasmon-assisted optofluidics. <i>ACS Nano</i> , <b>2011</b> , 5, 5457-62	16.7	219
48	Mapping heat origin in plasmonic structures. <i>Physical Review Letters</i> , <b>2010</b> , 104, 136805	7.4	218
47	Super-Heating and Micro-Bubble Generation around Plasmonic Nanoparticles under cw Illumination. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 4890-4898	3.8	206
46	Femtosecond-pulsed optical heating of gold nanoparticles. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	193
45	A critique of methods for temperature imaging in single cells. <i>Nature Methods</i> , <b>2014</b> , 11, 899-901	21.6	151
44	Thermal imaging of nanostructures by quantitative optical phase analysis. <i>ACS Nano</i> , <b>2012</b> , 6, 2452-8	16.7	149
43	Temperature mapping near plasmonic nanostructures using fluorescence polarization anisotropy. <i>Optics Express</i> , <b>2009</b> , 17, 3291-8	3.3	130
42	Thermoplasmonics modeling: A Green's function approach. <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	117
41	Fluence Threshold for Photothermal Bubble Generation Using Plasmonic Nanoparticles. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 28586-28596	3.8	111
40	Quantifying the Efficiency of Plasmonic Materials for Near-Field Enhancement and Photothermal Conversion. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 25518-25528	3.8	105
39	Applications and challenges of thermoplasmonics. <i>Nature Materials</i> , <b>2020</b> , 19, 946-958	27	102

38	Simple experimental procedures to distinguish photothermal from hot-carrier processes in plasmonics. <i>Light: Science and Applications</i> , <b>2020</b> , 9, 108	16.7	94
37	Thermoplasmonics: Heating Metal Nanoparticles Using Light <b>2017</b> ,		83
36	Plasmonic efficiencies of nanoparticles made of metal nitrides (TiN, ZrN) compared with gold. <i>Scientific Reports</i> , <b>2016</b> , 6, 38647	4.9	78
35	Plasmonic nanoparticle networks for light and heat concentration. <i>ACS Nano</i> , <b>2012</b> , 6, 3434-40	16.7	70
34	Micropatterning thermoplasmonic gold nanoarrays to manipulate cell adhesion. <i>ACS Nano</i> , <b>2012</b> , 6, 7227-7233	16.7	66
33	Reply to: "Validating subcellular thermal changes revealed by fluorescent thermosensors" and "The 10(5) gap issue between calculation and measurement in single-cell thermometry". <i>Nature Methods</i> , <b>2015</b> , 12, 803	21.6	47
32	Shaping and manipulation of light fields with bottom-up plasmonic structures. <i>New Journal of Physics</i> , <b>2008</b> , 10, 105016	2.9	46
31	Light-Assisted Solvothermal Chemistry Using Plasmonic Nanoparticles. <i>ACS Omega</i> , <b>2016</b> , 1, 2-8	3.9	39
30	Quantitative study of the photothermal properties of metallic nanowire networks. <i>ACS Nano</i> , <b>2015</b> , 9, 5551-8	16.7	38
29	Charge distribution induced inside complex plasmonic nanoparticles. <i>Optics Express</i> , <b>2010</b> , 18, 3035-44	3.3	36
28	Temperature Measurement in Plasmonic Nanoapertures Used for Optical Trapping. <i>ACS Photonics</i> , <b>2019</b> , 6, 1763-1773	6.3	35
27	Deterministic temperature shaping using plasmonic nanoparticle assemblies. <i>Nanoscale</i> , <b>2014</b> , 6, 8984-97.7		29
26	Optical Imaging and Characterization of Graphene and Other 2D Materials Using Quantitative Phase Microscopy. <i>ACS Photonics</i> , <b>2017</b> , 4, 3130-3139	6.3	26
25	Time-harmonic optical heating of plasmonic nanoparticles. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	26
24	Quantifying the Role of the Surfactant and the Thermophoretic Force in Plasmonic Nano-optical Trapping. <i>Nano Letters</i> , <b>2020</b> , 20, 8811-8817	11.5	24
23	Photothermal Control of Heat-Shock Protein Expression at the Single Cell Level. <i>Small</i> , <b>2018</b> , 14, e180191f0	11.0	20
22	Quantitative absorption spectroscopy of nano-objects. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	18
21	Three-dimensional temperature imaging around a gold microwire. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 244103	3.4	17

20	Full optical characterization of single nanoparticles using quantitative phase imaging. <i>Optica</i> , <b>2020</b> , 7, 243	8.6	17
19	SiC(0001) 3 x 3 heterochirality revealed by single-molecule STM imaging. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 3210-5	16.4	13
18	Shaping and patterning gold nanoparticles via micelle templated photochemistry. <i>Nanoscale</i> , <b>2015</b> , 7, 15814-21	7.7	11
17	Anti-Stokes Thermometry in Nanoplasmonics. <i>ACS Nano</i> , <b>2021</b> , 15, 5785-5792	16.7	11
16	Isosbestic Thermoplasmonic Nanostructures. <i>ACS Photonics</i> , <b>2017</b> , 4, 1544-1551	6.3	10
15	Quantitative model of the image of a radiating dipole through a microscope. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2019</b> , 36, 478-484	1.8	9
14	Adhesion layer influence on controlling the local temperature in plasmonic gold nanoholes. <i>Nanoscale</i> , <b>2020</b> , 12, 2524-2531	7.7	8
13	Quantitative phase microscopy using quadriwave lateral shearing interferometry (QLSI): principle, terminology, algorithm and grating shadow description. <i>Journal Physics D: Applied Physics</i> , <b>2021</b> , 54, 294002	2.0	8
12	Metasurface Optical Characterization Using Quadriwave Lateral Shearing Interferometry. <i>ACS Photonics</i> , <b>2021</b> , 8, 603-613	6.3	7
11	Microscale Temperature Shaping Using Spatial Light Modulation on Gold Nanoparticles. <i>Scientific Reports</i> , <b>2019</b> , 9, 4644	4.9	5
10	Scanning tunnelling microscopy imaging and spectroscopy of p-type degenerate 4H-SiC(0001). <i>Journal of Physics Condensed Matter</i> , <b>2005</b> , 17, 4015-4022	1.8	5
9	Quadriwave lateral shearing interferometry as a quantification tool for microscopy. Application to dry mass determination of living cells, temperature mapping, and vibrational phase imaging <b>2013</b> ,		3
8	Microscale Thermophoresis in Liquids Induced by Plasmonic Heating and Characterized by Phase and Fluorescence Microscopies. <i>Journal of Physical Chemistry C</i> ,	3.8	3
7	Thermal Microscopy Techniques101-142		2
6	Optimal architecture for diamond-based wide-field thermal imaging. <i>AIP Advances</i> , <b>2020</b> , 10, 025027	1.5	2
5	Are bacteria claustrophobic? The problem of micrometric spatial confinement for the culturing of micro-organisms.. <i>RSC Advances</i> , <b>2021</b> , 11, 12500-12506	3.7	2
4	Thermodynamics of Metal Nanoparticles36-80		1
3	Optically-assisted thermophoretic reversible assembly of colloidal particles and E. coli using graphene oxide microstructures.. <i>Scientific Reports</i> , <b>2022</b> , 12, 3657	4.9	1

2 Numerical Simulation Techniques 81-100

1 Fabrication of micropatterned arrays of gold nanoparticles for photothermal manipulation of living cells. *Methods in Cell Biology*, **2014**, 120, 155-69 1.8