Alexandre Bouhelier

List of Publications by Citations

84 papers	3,063 citations	29 h-index	54 g-index
94 ext. papers	3,397 ext. citations	5.8 avg, IF	5.02 L-index

#	Paper	IF	Citations
84	Continuum generation from single gold nanostructures through near-field mediated intraband transitions. *Physical Review B*, **2003**, 68,	3.3	481
83	Gain-assisted propagation in a plasmonic waveguide at telecom wavelength. *Nano Letters*, **2009**, 9, 2935-9	11.5	208
82	Electrical excitation of surface plasmons. *Physical Review Letters*, **2011**, 106, 226802	7.4	163
81	Surface plasmon interference excited by tightly focused laser beams. *Optics Letters*, **2007**, 32, 2535-7	3	131
80	Characterization of nanoplasmonic structures by locally excited photoluminescence. *Applied Physics Letters*, **2003**, 83, 5041-5043	3.4	125
79	Tip-enhanced optical spectroscopy. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2004**, 362, 807-19	3	96
78	Electromagnetic interactions in plasmonic nanoparticle arrays. *Journal of Physical Chemistry B*, **2005**, 109, 3195-8	3.4	93
77	Silencing and enhancement of second-harmonic generation in optical gap antennas. *Optics Express*, **2012**, 20, 10498-508	3.3	86
76	Imaging symmetry-selected corner plasmon modes in penta-twinned crystalline Ag nanowires. *ACS Nano*, **2011**, 5, 5874-80	16.7	80
75	Near-field photonics: tip-enhanced microscopy and spectroscopy on the nanoscale. *Journal of Optics*, **2006**, 8, S227-S233		75
74	Reversible strong coupling in silver nanoparticle arrays using photochromic molecules. *Nano Letters*, **2013**, 13, 282-6	11.5	74
73	Tuning of an optical dimer nanoantenna by electrically controlling its load impedance. *Nano Letters*, **2009**, 9, 3914-21	11.5	73
72	Quantitative analysis of localized surface plasmons based on molecular probing. *ACS Nano*, **2010**, 4, 4579-86	16.7	68
71	Near-field scattering of longitudinal fields. *Applied Physics Letters*, **2003**, 82, 4596-4598	3.4	68
70	Apertureless scanning near-field optical microscopy: a comparison between homodyne and heterodyne approaches. *Journal of the Optical Society of America B: Optical Physics*, **2006**, 23, 823	1.7	67
69	Plasmon-based free-radical photopolymerization: effect of diffusion on nanolithography processes. *Journal of the American Chemical Society*, **2011**, 133, 10535-42	16.4	64
68	Spontaneous Hot-Electron Light Emission from Electron-Fed Optical Antennas. *Nano Letters*, **2015**, 15, 5811-8	11.5	60

67	Control of molecular energy redistribution pathways via surface plasmon gating. *Physical Review Letters*, **2007**, 98, 083001	7.4	56
66	Ultrafast hybrid plasmonics. *Chemical Physics Letters*, **2008**, 461, 171-179	2.5	54
65	Nonlinear photon-assisted tunneling transport in optical gap antennas. *Nano Letters*, **2014**, 14, 2330-8	11.5	53
64	Launching propagating surface plasmon polaritons by a single carbon nanotube dipolar emitter. *Nano Letters*, **2012**, 12, 177-81	11.5	53
63	Field-enhanced scanning near-field optical microscopy. *Microscopy Research and Technique*, **2006**, 69, 563-79	2.8	51
62	Gain, detuning, and radiation patterns of nanoparticle optical antennas. *Physical Review B*, **2008**, 78,	3.3	48
61	Direct image of surface-plasmon-coupled emission by leakage radiation microscopy. *Applied Optics*, **2010**, 49, 875-9	0.2	44
60	Longitudinal anisotropy of the photoinduced molecular migration in azobenzene polymer films. *Optics Letters*, **2006**, 31, 613-5	3	44
59	Performance of electro-optical plasmonic ring resonators at telecom wavelengths. *Optics Express*, **2012**, 20, 2354-62	3.3	43
58	Electrical excitation of surface plasmons by an individual carbon nanotube transistor. *Physical Review Letters*, **2013**, 111, 026804	7.4	42
57	Integrated plasmonic waveguides: A mode solver based on density of states formulation. *Physical Review B*, **2009**, 80,	3.3	39
56	Coupling of a dipolar emitter into one-dimensional surface plasmon. *Scientific Reports*, **2013**, 3, 2734	4.9	31
55	Excitation of plasmonic nanoantennas by nonresonant and resonant electron tunnelling. *Nanoscale*, **2016**, 8, 14573-9	7.7	29
54	Delocalization of Nonlinear Optical Responses in Plasmonic Nanoantennas. *Physical Review Letters*, **2015**, 115, 197401	7.4	27
53	Influence of the number of nanoparticles on the enhancement properties of surface-enhanced Raman scattering active area: sensitivity versus repeatability. *ACS Nano*, **2011**, 5, 1630-8	16.7	27
52	Energy-Resolved Hot-Carrier Relaxation Dynamics in Monocrystalline Plasmonic Nanoantennas. *ACS Photonics*, **2016**, 3, 1482-1488	6.3	25
51	Saturable plasmonic metasurfaces for laser mode locking. *Light: Science and Applications*, **2020**, 9, 50	16.7	24
50	Sorting of Enhanced Reference Raman Spectra of a Single Amino Acid Molecule. *Journal of Physical Chemistry C*, **2014**, 118, 17975-17982	3.8	24

49	Dynamics, Efficiency, and Energy Distribution of Nonlinear Plasmon-Assisted Generation of Hot Carriers. *ACS Photonics*, **2016**, 3, 791-795	6.3	24
48	Optical wireless link between a nanoscale antenna and a transducing rectenna. *Nature Communications*, **2018**, 9, 1992	17.4	24
47	Photoresponsive polymers for topographic simulation of the optical near-field of a nanometer sized gold tip in a highly focused laser beam. *Optics Express*, **2005**, 13, 3619-24	3.3	21
46	Off-Resonant Optical Excitation of Gold Nanorods: Nanoscale Imprint of Polarization Surface Charge Distribution. *Journal of Physical Chemistry Letters*, **2011**, 2, 7-11	6.4	20
45	Statistical and Fourier Analysis for In-line Concentration Sensitivity in Single Molecule Dynamic-SERS. *ACS Photonics*, **2015**, 2, 1266-1271	6.3	16
44	Determinant role of the edges in defining surface plasmon propagation in stripe waveguides and tapered concentrators. *Journal of the Optical Society of America B: Optical Physics*, **2012**, 29, 226	1.7	16
43	Selective excitation of surface plasmon modes propagating in Ag nanowires. *Optics Express*, **2017**, 25, 9138-9149	3.3	15
42	Discrimination between Single Protein Conformations Using Dynamic SERS. *ACS Sensors*, **2016**, 1, 676-680	9.2	14
41	Designing Plasmonic Eigenstates for Optical Signal Transmission in Planar Channel Devices. *ACS Photonics*, **2018**, 5, 2328-2335	6.3	13
40	Propagation and diffraction of locally excited surface plasmons. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2001**, 18, 1552-61	1.8	13
39	Spectral pointillism of enhanced Raman scattering for accessing structural and conformational information on single protein. *Physical Chemistry Chemical Physics*, **2016**, 19, 458-466	3.6	12
38	Delocalized Hot Electron Generation with Propagative Surface Plasmon Polaritons. *ACS Photonics*, **2019**, 6, 1500-1505	6.3	12
37	Revealing a Mode Interplay That Controls Second-Harmonic Radiation in Gold Nanoantennas. *ACS Photonics*, **2017**, 4, 2923-2929	6.3	10
36	Excitation of a one-dimensional evanescent wave by conical edge diffraction of surface plasmon. *Optics Express*, **2011**, 19, 5303-12	3.3	10
35	Colloidal Quantum Dot Integrated Light Sources for Plasmon Mediated Photonic Waveguide Excitation. *ACS Photonics*, **2016**, 3, 844-852	6.3	10
34	Discerning the Origins of the Amplitude Fluctuations in Dynamic Raman Nanospectroscopy. *Journal of Physical Chemistry C*, **2012**, 116, 26919-26923	3.8	9
33	Spatial Distribution of the Nonlinear Photoluminescence in Au Nanowires. *ACS Photonics*, **2019**, 6, 1240-1247	6.3	8
32	Local field enhancement and thermoplasmonics in multimodal aluminum structures. *Physical Review B*, **2017**, 96,	3.3	8

31	NEAR-FIELD PROPERTIES OF PLASMONIC NANOSTRUCTURES WITH HIGH ASPECT RATIO. *Progress in Electromagnetics Research*, **2014**, 146, 77-88	3.8	8
30	Biased Nanoscale Contact as Active Element for Electrically Driven Plasmonic Nanoantenna. *ACS Photonics*, **2017**, 4, 1501-1505	6.3	7
29	In-plane remote photoluminescence excitation of carbon nanotube by propagating surface plasmon. *Optics Letters*, **2012**, 37, 4711-3	3	7
28	NEAR-FIELD OPTICAL EXCITATION AND DETECTION OF SURFACE PLASMONS. *Springer Series in Optical Sciences*, **2007**, 139-153	0.5	7
27	Electromigrated electrical optical antennas for transducing electrons and photons at the nanoscale. *Beilstein Journal of Nanotechnology*, **2018**, 9, 1964-1976	3	6
26	Spatially uniform enhancement of single quantum dot emission using plasmonic grating decoupler. *Scientific Reports*, **2015**, 5, 16796	4.9	6
25	Laser-induced thermoelectric effects in electrically biased nanoscale constrictions. *Nanophotonics*, **2018**, 7, 1917-1927	6.3	6
24	Directional second-harmonic generation controlled by sub-wavelength facets of an organic mesowire. *Applied Optics*, **2018**, 57, 5914-5922	1.7	5
23	Sorting of Single Biomolecules based on Fourier Polar Representation of Surface Enhanced Raman Spectra. *Scientific Reports*, **2016**, 6, 20383	4.9	4
22	Optical Properties of Gold Nanoparticles Produced by the Assembly of Size-Selected Clusters: Covering the Full Visible Wavelength Range in the Smallest Particle Size Regime. *Collection of Czechoslovak Chemical Communications*, **2007**, 72, 121-128		4
21	Momentum angular mapping of enhanced Raman scattering of single-walled carbon nanotube. *Applied Physics Letters*, **2017**, 111, 043104	3.4	3
20	Optical Antennas. *International Journal of Optics*, **2012**, 2012, 1-4	0.9	2
19	Effect of quantized conductivity on the anomalous photon emission radiated from atomic-size point contacts. *Nanophotonics*, **2020**, 9, 413-425	6.3	2
18	Wave-vector analysis of plasmon-assisted distributed nonlinear photoluminescence along Au nanowires. *Physical Review B*, **2020**, 102,	3.3	2
17	Coherent surface plasmon amplification through the dissipative instability of 2D direct current. *Nanophotonics*, **2018**, 8, 135-143	6.3	2
16	Photon bunching of the nonlinear photoluminescence emitted by plasmonics metals. *Journal of the Optical Society of America B: Optical Physics*, **2021**, 38, 576	1.7	2
15	Electrically-driven optical antennas enabled by mesoscopic contacts **2017**,		1
14	Conformational Changes and Charge Transfer in Biomolecules Resolved Using Dynamic Enhanced Raman Correlation Spectroscopy. *Journal of Physical Chemistry B*, **2019**, 123, 1931-1938	3.4	1

13	Influence of an Electron Beam Exposure on the Surface Plasmon Resonance of Gold Nanoparticles. *Plasmonics*, **2014**, 9, 343-348	2.4	1
12	Imaging Surface Plasmons. *Springer Series in Optical Sciences*, **2012**, 225-268	0.5	1
11	Colloidal quantum dots decorated micro-ring resonators for efficient integrated waveguides excitation. *Nanophotonics*, **2020**, 9, 1411-1423	6.3	1
10	Modal and wavelength conversions in plasmonic nanowires. *Optics Express*, **2021**, 29, 15366-15381	3.3	1
9	Interconnect-Free Multibit Arithmetic and Logic Unit in a Single Reconfigurable 3 Ħ Plasmonic Cavity. *ACS Nano*, **2021**,	16.7	1
8	Electromagnetic Singularities and Resonances in Near-Field Optical Probes **2007**, 254-279		1
7	Atomic scale memristive photon source.. *Light: Science and Applications*, **2022**, 11, 78	16.7	1
6	Electrostatic Control over Optically Pumped Hot Electrons in Optical Gap Antennas. *ACS Photonics*, **2020**, 7, 2153-2162	6.3	0
5	Focus issue on surface plasmon photonics introduction. *Optics Express*, **2013**, 21, 27286-90	3.3	0
4	Evaluating plasmonic transport in current-carrying silver nanowires. *Journal of Visualized Experiments*, **2013**, e51048	1.6	
3	New routes for imaging the optical near-fields of plasmonic nanostructures **2005**, 6002, 154		
2	Single-Crystal vs Polycrystalline Gold: A Non-linear-Optics Analysis. *NATO Science for Peace and Security Series B: Physics and Biophysics*, **2017**, 465-466	0.2	
1	Coherent two-beam steering of delocalized nonlinear photoluminescence in a plasmon cavity. *Optics Express*, **2022**, 30, 17517	3.3	