

Alexandre Bouhelier

List of Publications by Year in descending order

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93
papers

3,634
citations

136885

32
h-index

133188

59
g-index

94
all docs

94
docs citations

94
times ranked

4095
citing authors

#	ARTICLE	IF	CITATIONS
1	Continuum generation from single gold nanostructures through near-field mediated intraband transitions. <i>Physical Review B</i> , 2003, 68, .	1.1	537
2	Gain-Assisted Propagation in a Plasmonic Waveguide at Telecom Wavelength. <i>Nano Letters</i> , 2009, 9, 2935-2939.	4.5	243
3	Electrical Excitation of Surface Plasmons. <i>Physical Review Letters</i> , 2011, 106, 226802.	2.9	200
4	Surface plasmon interference excited by tightly focused laser beams. <i>Optics Letters</i> , 2007, 32, 2535.	1.7	159
5	Characterization of nanoplasmonic structures by locally excited photoluminescence. <i>Applied Physics Letters</i> , 2003, 83, 5041-5043.	1.5	137
6	Tip-enhanced optical spectroscopy. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2004, 362, 807-819.	1.6	106
7	Electromagnetic Interactions in Plasmonic Nanoparticle Arrays. <i>Journal of Physical Chemistry B</i> , 2005, 109, 3195-3198.	1.2	100
8	Silencing and enhancement of second-harmonic generation in optical gap antennas. <i>Optics Express</i> , 2012, 20, 10498.	1.7	97
9	Reversible Strong Coupling in Silver Nanoparticle Arrays Using Photochromic Molecules. <i>Nano Letters</i> , 2013, 13, 282-286.	4.5	93
10	Imaging Symmetry-Selected Corner Plasmon Modes in Penta-Twinned Crystalline Ag Nanowires. <i>ACS Nano</i> , 2011, 5, 5874-5880.	7.3	89
11	Near-field photonics: tip-enhanced microscopy and spectroscopy on the nanoscale. <i>Journal of Optics</i> , 2006, 8, S227-S233.	1.5	85
12	Spontaneous Hot-Electron Light Emission from Electron-Fed Optical Antennas. <i>Nano Letters</i> , 2015, 15, 5811-5818.	4.5	85
13	Apertureless scanning near-field optical microscopy: a comparison between homodyne and heterodyne approaches. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 823.	0.9	80
14	Tuning of an Optical Dimer Nanoantenna by Electrically Controlling Its Load Impedance. <i>Nano Letters</i> , 2009, 9, 3914-3921.	4.5	79
15	Quantitative Analysis of Localized Surface Plasmons Based on Molecular Probing. <i>ACS Nano</i> , 2010, 4, 4579-4586.	7.3	78
16	Near-field scattering of longitudinal fields. <i>Applied Physics Letters</i> , 2003, 82, 4596-4598.	1.5	76
17	Plasmon-Based Free-Radical Photopolymerization: Effect of Diffusion on Nanolithography Processes. <i>Journal of the American Chemical Society</i> , 2011, 133, 10535-10542.	6.6	73
18	Nonlinear Photon-Assisted Tunneling Transport in Optical Gap Antennas. <i>Nano Letters</i> , 2014, 14, 2330-2338.	4.5	68

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19	Control of Molecular Energy Redistribution Pathways via Surface Plasmon Gating. <i>Physical Review Letters</i> , 2007, 98, 083001.	2.9	63
20	Ultrafast hybrid plasmonics. <i>Chemical Physics Letters</i> , 2008, 461, 171-179.	1.2	61
21	Field-enhanced scanning near-field optical microscopy. <i>Microscopy Research and Technique</i> , 2006, 69, 563-579.	1.2	60
22	Launching Propagating Surface Plasmon Polaritons by a Single Carbon Nanotube Dipolar Emitter. <i>Nano Letters</i> , 2012, 12, 177-181.	4.5	58
23	Gain, detuning, and radiation patterns of nanoparticle optical antennas. <i>Physical Review B</i> , 2008, 78, .	1.1	54
24	Performance of electro-optical plasmonic ring resonators at telecom wavelengths. <i>Optics Express</i> , 2012, 20, 2354.	1.7	52
25	Direct image of surface-plasmon-coupled emission by leakage radiation microscopy. <i>Applied Optics</i> , 2010, 49, 875.	2.1	50
26	Saturable plasmonic metasurfaces for laser mode locking. <i>Light: Science and Applications</i> , 2020, 9, 50.	7.7	50
27	Longitudinal anisotropy of the photoinduced molecular migration in azobenzene polymer films. <i>Optics Letters</i> , 2006, 31, 613.	1.7	48
28	Electrical Excitation of Surface Plasmons by an Individual Carbon Nanotube Transistor. <i>Physical Review Letters</i> , 2013, 111, 026804.	2.9	46
29	Integrated plasmonic waveguides: A mode solver based on density of states formulation. <i>Physical Review B</i> , 2009, 80, .	1.1	43
30	Excitation of plasmonic nanoantennas by nonresonant and resonant electron tunnelling. <i>Nanoscale</i> , 2016, 8, 14573-14579.	2.8	40
31	Optical wireless link between a nanoscale antenna and a transducing rectenna. <i>Nature Communications</i> , 2018, 9, 1992.	5.8	38
32	Coupling of a dipolar emitter into one-dimensional surface plasmon. <i>Scientific Reports</i> , 2013, 3, 2734.	1.6	37
33	Delocalization of Nonlinear Optical Responses in Plasmonic Nanoantennas. <i>Physical Review Letters</i> , 2015, 115, 197401.	2.9	31
34	Energy-Resolved Hot-Carrier Relaxation Dynamics in Monocrystalline Plasmonic Nanoantennas. <i>ACS Photonics</i> , 2016, 3, 1482-1488.	3.2	31
35	Dynamics, Efficiency, and Energy Distribution of Nonlinear Plasmon-Assisted Generation of Hot Carriers. <i>ACS Photonics</i> , 2016, 3, 791-795.	3.2	30
36	Influence of the Number of Nanoparticles on the Enhancement Properties of Surface-Enhanced Raman Scattering Active Area: Sensitivity versus Repeatability. <i>ACS Nano</i> , 2011, 5, 1630-1638.	7.3	29

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37	Sorting of Enhanced Reference Raman Spectra of a Single Amino Acid Molecule. <i>Journal of Physical Chemistry C</i> , 2014, 118, 17975-17982.	1.5	27
38	Photoresponsive polymers for topographic simulation of the optical near-field of a nanometer sized gold tip in a highly focused laser beam. <i>Optics Express</i> , 2005, 13, 3619.	1.7	23
39	Off-Resonant Optical Excitation of Gold Nanorods: Nanoscale Imprint of Polarization Surface Charge Distribution. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 7-11.	2.1	22
40	Selective excitation of surface plasmon modes propagating in Ag nanowires. <i>Optics Express</i> , 2017, 25, 9138.	1.7	20
41	Determinant role of the edges in defining surface plasmon propagation in stripe waveguides and tapered concentrators. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012, 29, 226.	0.9	18
42	Delocalized Hot Electron Generation with Propagative Surface Plasmon Polaritons. <i>ACS Photonics</i> , 2019, 6, 1500-1505.	3.2	18
43	Spectral pointillism of enhanced Raman scattering for accessing structural and conformational information on single protein. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 458-466.	1.3	17
44	Statistical and Fourier Analysis for In-line Concentration Sensitivity in Single Molecule Dynamic-SERS. <i>ACS Photonics</i> , 2015, 2, 1266-1271.	3.2	16
45	Discrimination between Single Protein Conformations Using Dynamic SERS. <i>ACS Sensors</i> , 2016, 1, 676-680.	4.0	16
46	Revealing a Mode Interplay That Controls Second-Harmonic Radiation in Gold Nanoantennas. <i>ACS Photonics</i> , 2017, 4, 2923-2929.	3.2	16
47	Designing Plasmonic Eigenstates for Optical Signal Transmission in Planar Channel Devices. <i>ACS Photonics</i> , 2018, 5, 2328-2335.	3.2	16
48	Excitation of a one-dimensional evanescent wave by conical edge diffraction of surface plasmon. <i>Optics Express</i> , 2011, 19, 5303.	1.7	14
49	Colloidal Quantum Dot Integrated Light Sources for Plasmon Mediated Photonic Waveguide Excitation. <i>ACS Photonics</i> , 2016, 3, 844-852.	3.2	14
50	Propagation and diffraction of locally excited surface plasmons. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2001, 18, 1552.	0.8	13
51	Spatial Distribution of the Nonlinear Photoluminescence in Au Nanowires. <i>ACS Photonics</i> , 2019, 6, 1240-1247.	3.2	12
52	NEAR-FIELD OPTICAL EXCITATION AND DETECTION OF SURFACE PLASMONS. <i>Springer Series in Optical Sciences</i> , 2007, , 139-153.	0.5	11
53	Discerning the Origins of the Amplitude Fluctuations in Dynamic Raman Nanospectroscopy. <i>Journal of Physical Chemistry C</i> , 2012, 116, 26919-26923.	1.5	11
54	Local field enhancement and thermoplasmonics in multimodal aluminum structures. <i>Physical Review B</i> , 2017, 96, .	1.1	11

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55	NEAR-FIELD PROPERTIES OF PLASMONIC NANOSTRUCTURES WITH HIGH ASPECT RATIO. Progress in Electromagnetics Research, 2014, 146, 77-88.	1.6	10
56	Biased Nanoscale Contact as Active Element for Electrically Driven Plasmonic Nanoantenna. ACS Photonics, 2017, 4, 1501-1505.	3.2	10
57	Laser-induced thermoelectric effects in electrically biased nanoscale constrictions. Nanophotonics, 2018, 7, 1917-1927.	2.9	10
58	Electromigrated electrical optical antennas for transducing electrons and photons at the nanoscale. Beilstein Journal of Nanotechnology, 2018, 9, 1964-1976.	1.5	9
59	Atomic scale memristive photon source. Light: Science and Applications, 2022, 11, 78.	7.7	9
60	In-plane remote photoluminescence excitation of carbon nanotube by propagating surface plasmon. Optics Letters, 2012, 37, 4711.	1.7	8
61	Photon bunching of the nonlinear photoluminescence emitted by plasmonic metals. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 576.	0.9	7
62	Spatially uniform enhancement of single quantum dot emission using plasmonic grating decoupler. Scientific Reports, 2015, 5, 16796.	1.6	6
63	Modal and wavelength conversions in plasmonic nanowires. Optics Express, 2021, 29, 15366.	1.7	6
64	Interconnect-Free Multibit Arithmetic and Logic Unit in a Single Reconfigurable $3 \times \frac{1}{4} \mu\text{m}^2$ Plasmonic Cavity. ACS Nano, 2021, 15, 13351-13359.	7.3	6
65	Directional second-harmonic generation controlled by sub-wavelength facets of an organic mesowire. Applied Optics, 2018, 57, 5914.	0.9	5
66	Effect of quantized conductivity on the anomalous photon emission radiated from atomic-size point contacts. Nanophotonics, 2020, 9, 413-425.	2.9	5
67	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.	1.0	4
68	Sorting of Single Biomolecules based on Fourier Polar Representation of Surface Enhanced Raman Spectra. Scientific Reports, 2016, 6, 20383.	1.6	4
69	Wave-vector analysis of plasmon-assisted distributed nonlinear photoluminescence along Au nanowires. Physical Review B, 2020, 102, .	1.1	4
70	Colloidal quantum dots decorated micro-ring resonators for efficient integrated waveguides excitation. Nanophotonics, 2020, 9, 1411-1423.	2.9	4
71	Momentum angular mapping of enhanced Raman scattering of single-walled carbon nanotube. Applied Physics Letters, 2017, 111, 043104.	1.5	3
72	Coherent surface plasmon amplification through the dissipative instability of 2D direct current. Nanophotonics, 2018, 8, 135-143.	2.9	3

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73	Conformational Changes and Charge Transfer in Biomolecules Resolved Using Dynamic Enhanced Raman Correlation Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2019, 123, 1931-1938.	1.2	3
74	Electrical Excitation of Surface Plasmons. , 2012, , .		3
75	Optical Antennas. <i>International Journal of Optics</i> , 2012, 2012, 1-4.	0.6	2
76	Influence of an Electron Beam Exposure on the Surface Plasmon Resonance of Gold Nanoparticles. <i>Plasmonics</i> , 2014, 9, 343-348.	1.8	2
77	Electrostatic Control over Optically Pumped Hot Electrons in Optical Gap Antennas. <i>ACS Photonics</i> , 2020, 7, 2153-2162.	3.2	2
78	Coherent two-beam steering of delocalized nonlinear photoluminescence in a plasmon cavity. <i>Optics Express</i> , 2022, 30, 17517.	1.7	2
79	Imaging Surface Plasmons. <i>Springer Series in Optical Sciences</i> , 2012, , 225-268.	0.5	1
80	Raman and photothermal spectroscopies for explosive detection. <i>Proceedings of SPIE</i> , 2013, , .	0.8	1
81	Focus issue on surface plasmon photonics introduction. <i>Optics Express</i> , 2013, 21, 27286.	1.7	1
82	Evaluating Plasmonic Transport in Current-carrying Silver Nanowires. <i>Journal of Visualized Experiments</i> , 2013, , e51048.	0.2	1
83	Electrically-driven optical antennas enabled by mesoscopic contacts. , 2017, , .		1
84	Electromagnetic Singularities and Resonances in Near-Field Optical Probes. , 2007, , 254-279.		1
85	New routes for imaging the optical near-fields of plasmonic nanostructures. , 2005, 6002, 154.		0
86	Surface plasmon broadband continuum. , 2005, , .		0
87	Plasmonic heterostructures for addressable nanophotonics. , 2006, , .		0
88	Nanoscale photopolymerization induced by the enhanced optical near field of metallic nanoparticles. <i>Proceedings of SPIE</i> , 2009, , .	0.8	0
89	Coherent Control in Single Plasmonic Nanostructures. , 2015, , .		0
90	Hot Electrons Remote Excitation and their Ultrafast Dynamics. , 2021, , .		0

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91	Hybrid Plasmons for Manipulating Molecular and Excitonic Energy Redistribution Pathways. , 2007, , .		0
92	An Electrical Tuner to Command Optical NanoAntennas. , 2010, , .		0
93	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	0