Olivier J F Martin

List of Publications by Citations

254 papers	13,705 citations	55 h-index	111 g-index
280 ext. papers	15,674 ext. citations	5.3 avg, IF	6.86 L-index

#	Paper	IF	Citations
254	Resonant optical antennas. *Science*, **2005**, 308, 1607-9	33.3	1712
253	Scanning near-field optical microscopy with aperture probes: Fundamentals and applications. *Journal of Chemical Physics*, **2000**, 112, 7761-7774	3.9	545
252	Plasmon resonances of silver nanowires with a nonregular cross section. *Physical Review B*, **2001**, 64,	3.3	414
251	Optical Second Harmonic Generation in Plasmonic Nanostructures: From Fundamental Principles to Advanced Applications. *ACS Nano*, **2015**, 9, 10545-62	16.7	351
250	Trapping and sensing 10 nm metal nanoparticles using plasmonic dipole antennas. *Nano Letters*, **2010**, 10, 1006-11	11.5	334
249	Engineering the optical response of plasmonic nanoantennas. *Optics Express*, **2008**, 16, 9144-54	3.3	334
248	Generalized Field Propagator for Electromagnetic Scattering and Light Confinement. *Physical Review Letters*, **1995**, 74, 526-529	7.4	313
247	Electromagnetic resonances in individual and coupled split-ring resonators. *Journal of Applied Physics*, **2002**, 92, 2929-2936	2.5	298
246	Mechanisms of Fano resonances in coupled plasmonic systems. *ACS Nano*, **2013**, 7, 4527-36	16.7	264
245	Plasmon resonant coupling in metallic nanowires. *Optics Express*, **2001**, 8, 655-63	3.3	256
244	Influence of electromagnetic interactions on the line shape of plasmonic Fano resonances. *ACS Nano*, **2011**, 5, 8999-9008	16.7	245
243	Ab initio theory of Fano resonances in plasmonic nanostructures and metamaterials. *Physical Review B*, **2011**, 83,	3.3	237
242	Controlling and tuning strong optical field gradients at a local probe microscope tip apex. *Applied Physics Letters*, **1997**, 70, 705-707	3.4	210
241	Nanoscale topographical control of capillary assembly of nanoparticles. *Nature Nanotechnology*, **2017**, 12, 73-80	28.7	209
240	Symmetry breaking in a plasmonic metamaterial at optical wavelength. *Nano Letters*, **2008**, 8, 2171-5	11.5	200
239	Accurate and efficient computation of the Green's tensor for stratified media. *Physical Review E*, **2000**, 62, 5797-807	2.4	199
238	Enhanced second-harmonic generation from double resonant plasmonic antennae. *Optics Express*, **2012**, 20, 12860-5	3.3	193

237	Electromagnetic scattering in polarizable backgrounds. *Physical Review E*, **1998**, 58, 3909-3915	2.4	189
236	Surface integral formulation for 3D simulations of plasmonic and high permittivity nanostructures. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2009**, 26, 732-40	1.8	188
235	Optical interactions in a plasmonic particle coupled to a metallic film. *Optics Express*, **2006**, 14, 9971-81	3.3	182
234	Dramatic localized electromagnetic enhancement in plasmon resonant nanowires. *Chemical Physics Letters*, **2001**, 341, 1-6	2.5	178
233	Spectral response of plasmon resonant nanoparticles with a non-regular shape. *Optics Express*, **2000**, 6, 213-9	3.3	175
232	Augmenting second harmonic generation using Fano resonances in plasmonic systems. *Nano Letters*, **2013**, 13, 1847-51	11.5	174
231	Controlling the Fano interference in a plasmonic lattice. *Physical Review B*, **2007**, 76,	3.3	157
230	Retardation-induced plasmon resonances in coupled nanoparticles. *Optics Letters*, **2001**, 26, 1096-8	3	152
229	Full Color Generation Using Silver Tandem Nanodisks. *ACS Nano*, **2017**, 11, 4419-4427	16.7	130
228	Recent Advances in Resonant Waveguide Gratings. *Laser and Photonics Reviews*, **2018**, 12, 1800017	8.3	129
227	A broadband and high-gain metamaterial microstrip antenna. *Applied Physics Letters*, **2010**, 96, 164101	3.4	125
226	Tunable composite nanoparticle for plasmonics. *Optics Letters*, **2006**, 31, 2750-2	3	116
225	Guided Bloch surface waves on ultrathin polymeric ridges. *Nano Letters*, **2010**, 10, 2087-91	11.5	113
224	Molecular lifetime changes induced by nanometer scale optical fields. *Physical Review Letters*, **1995**, 75, 3098-3101	7.4	111
223	Iterative scheme for computing exactly the total field propagating in dielectric structures of arbitrary shape. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **1994**, 11, 1073	1.8	106
222	Excitation and reemission of molecules near realistic plasmonic nanostructures. *Nano Letters*, **2011**, 11, 482-7	11.5	105
221	Integration of plasmonic trapping in a microfluidic environment. *Optics Express*, **2009**, 17, 6018-24	3.3	105
220	Plasmonic radiance: probing structure at the Ångström scale with visible light. *Nano Letters*, **2013**, 13, 497-503	11.5	94

219	Numerical methods for nanophotonics: standard problems and future challenges. *Laser and Photonics Reviews*, **2015**, 9, 577-603	8.3	93
218	Accurate and versatile modeling of electromagnetic scattering on periodic nanostructures with a surface integral approach. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2010**, 27, 2261-71	1.8	90
217	Relation between near-field and far-field properties of plasmonic Fano resonances. *Optics Express*, **2011**, 19, 22167-75	3.3	88
216	Light-coupling masks for lensless, sub-wavelength optical lithography. *Applied Physics Letters*, **1998**, 72, 2379-2381	3.4	84
215	Non-regularly shaped plasmon resonant nanoparticle as localized light source for near-field microscopy. *Journal of Microscopy*, **2001**, 202, 60-5	1.9	83
214	Refractive index sensing with subradiant modes: a framework to reduce losses in plasmonic nanostructures. *ACS Nano*, **2013**, 7, 6978-87	16.7	81
213	Combined antenna and localized plasmon resonance in Raman scattering from random arrays of silver-coated, vertically aligned multiwalled carbon nanotubes. *Nano Letters*, **2011**, 11, 365-71	11.5	78
212	Efficient isotropic magnetic resonators. *Applied Physics Letters*, **2002**, 81, 939-941	3.4	78
211	Ultrasensitive optical shape characterization of gold nanoantennas using second harmonic generation. *Nano Letters*, **2013**, 13, 1787-92	11.5	77
210	Mode-Selective Surface-Enhanced Raman Spectroscopy Using Nanofabricated Plasmonic Dipole Antennas. *Journal of Physical Chemistry C*, **2009**, 113, 14672-14675	3.8	76
209	Local field enhancement of an infinite conical metal tip illuminated by a focused beam. *Journal of Raman Spectroscopy*, **2009**, 40, 1338-1342	2.3	74
208	Engineering metal adhesion layers that do not deteriorate plasmon resonances. *ACS Nano*, **2013**, 7, 2751-7	16.7	71
207	Gap plasmons and near-field enhancement in closely packed sub-10 nm gap resonators. *Nano Letters*, **2013**, 13, 5449-53	11.5	66
206	Fabrication of sub-10 nm gap arrays over large areas for plasmonic sensors. *Applied Physics Letters*, **2011**, 99, 263302	3.4	66
205	Generation of optical standing waves around mesoscopic surface structures: Scattering and light confinement. *Physical Review B*, **1995**, 52, 2889-2898	3.3	64
204	Field polarization and polarization charge distributions in plasmon resonant nanoparticles. *New Journal of Physics*, **2000**, 2, 27-27	2.9	63
203	Fano-resonance-assisted metasurface for color routing. *Light: Science and Applications*, **2017**, 6, e17017	16.7	61
202	Strong enhancement of forbidden atomic transitions using plasmonic nanostructures. *Physical Review A*, **2012**, 85,	2.6	61

201	Surface-plasmon-induced modification on the spontaneous emission spectrum via subwavelength-confined anisotropic Purcell factor. *Nano Letters*, **2012**, 12, 2488-93	11.5	58
200	Dielectric versus topographic contrast in near-field microscopy. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **1996**, 13, 1801	1.8	58
199	Nonlinear plasmonic nanorulers. *ACS Nano*, **2014**, 8, 4931-9	16.7	53
198	Electric and magnetic resonances in arrays of coupled gold nanoparticle in-tandem pairs. *Optics Express*, **2008**, 16, 13287-95	3.3	53
197	Bloch surface waves in ultrathin waveguides: near-field investigation of mode polarization and propagation. *Journal of the Optical Society of America B: Optical Physics*, **2010**, 27, 1617	1.7	52
196	Resonance fluorescence of single molecules assisted by a plasmonic structure. *Physical Review B*, **2010**, 81,	3.3	50
195	Importance of confined fields in near-field optical imaging of subwavelength objects. *Physical Review B*, **1994**, 50, 14467-14473	3.3	50
194	Less Is More: Enhancement of Second-Harmonic Generation from Metasurfaces by Reduced Nanoparticle Density. *Nano Letters*, **2018**, 18, 7709-7714	11.5	50
193	Cavity-Coupled Plasmonic Device with Enhanced Sensitivity and Figure-of-Merit. *ACS Nano*, **2015**, 9, 7621-33	16.7	48
192	Molecule-dependent plasmonic enhancement of fluorescence and Raman scattering near realistic nanostructures. *ACS Nano*, **2012**, 6, 9828-36	16.7	45
191	Optimization of finite diffraction gratings for the excitation of surface plasmons. *Journal of Applied Physics*, **2006**, 100, 124301	2.5	45
190	Green's tensor technique for scattering in two-dimensional stratified media. *Physical Review E*, **2001**, 63, 066615	2.4	45
189	Generalized Field Propagator for Arbitrary Finite-Size Photonic Band Gap Structures. *Physical Review Letters*, **1999**, 82, 315-318	7.4	44
188	Biosensor based on chemically-designed anchorable cytochrome c for the detection of H□□ released by aquatic cells. *Biosensors and Bioelectronics*, **2013**, 42, 385-90	11.8	43
187	A Universal Law for Plasmon Resonance Shift in Biosensing. *ACS Photonics*, **2015**, 2, 144-150	6.3	42
186	Optical magnetic near-field intensities around nanometer-scale surface structures. *Physical Review B*, **1997**, 55, 16487-16497	3.3	42
185	Strong Improvement of Long-Term Chemical and Thermal Stability of Plasmonic Silver Nanoantennas and Films. *Small*, **2017**, 13, 1700044	11	41
184	Geometrical Effects on Sintering Dynamics of Cu□Ag Core□Shell Nanoparticles. *Journal of Physical Chemistry C*, **2016**, 120, 17791-17800	3.8	41

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182	Second-harmonic generation from periodic arrays of arbitrary shape plasmonic nanostructures: a surface integral approach. *Journal of the Optical Society of America B: Optical Physics*, **2013**, 30, 2970	1.7	40
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180	Transient behavior of surface plasmon polaritons scattered at a subwavelength groove. *Physical Review B*, **2007**, 76,	3.3	39
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178	Symmetry and selection rules for localized surface plasmon resonances in nanostructures. *Physical Review B*, **2010**, 81,	3.3	38
177	Simulations of hybrid long-range plasmon modes with application to 90 degree bends. *Optics Letters*, **2007**, 32, 2354-6	3	38
176	Influence of the cross section and the permittivity on the plasmon-resonance spectrum of silver nanowires. *Applied Physics B: Lasers and Optics*, **2001**, 73, 299-304	1.9	38
175	Computing the optical near-field distributions around complex subwavelength surface structures: A comparative study of different methods. *Physical Review E*, **1996**, 54, 4285-4292	2.4	38
174	Mode analysis of second-harmonic generation in plasmonic nanostructures. *Journal of the Optical Society of America B: Optical Physics*, **2016**, 33, 768	1.7	38
173	Enhancement Mechanisms of the Second Harmonic Generation from Double Resonant Aluminum Nanostructures. *ACS Photonics*, **2017**, 4, 1522-1530	6.3	37
172	Generalized bloch equations for optical interactions in confined geometries. *Chemical Physics Letters*, **2005**, 404, 44-48	2.5	37
171	Label-Free Electrochemical Immunoassay for C-Reactive Protein. *Biosensors*, **2018**, 8,	5.9	37
170	Electrochemical Sensor for Bilirubin Detection Using Screen Printed Electrodes Functionalized with Carbon Nanotubes and Graphene. *Sensors*, **2018**, 18,	3.8	36
169	Influence of metal roughness on the near-field generated by an aperture/apertureless probe. *Journal of Microscopy*, **2002**, 205, 147-52	1.9	36
168	Thermal behavior of visible AlGaInP-GaInP ridge laser diodes. *IEEE Journal of Quantum Electronics*, **1992**, 28, 2582-2588	2	36
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164	Fano resonances in the nonlinear optical response of coupled plasmonic nanostructures. *Optics Express*, **2014**, 22, 29693-707	3.3	34
163	Polarization sensitive silicon photodiodes using nanostructured metallic grids. *Applied Physics Letters*, **2009**, 94, 193503	3.4	34
162	Mode Coupling in Plasmonic Heterodimers Probed with Electron Energy Loss Spectroscopy. *ACS Nano*, **2017**, 11, 3485-3495	16.7	32
161	Polarisation charges and scattering behaviour of realistically rounded plasmonic nanostructures. *Optics Express*, **2013**, 21, 21500-7	3.3	32
160	Experimental comparison between conventional and hybrid long-range surface plasmon waveguide bends. *Physical Review A*, **2008**, 77,	2.6	32
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158	Resonant tunneling of surface plasmon-polaritons. *Optics Express*, **2007**, 15, 6380-8	3.3	31
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156	Interaction between localized and delocalized surface plasmon polariton modes in a metallic photonic crystal. *Physica Status Solidi (B): Basic Research*, **2006**, 243, 2344-2348	1.3	31
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153	Theory of molecular excitation and relaxation near a plasmonic device. *Journal of Chemical Physics*, **2007**, 127, 034701	3.9	29
152	Microwire arrays with plasmonic response at microwave frequencies. *Applied Physics Letters*, **2002**, 81, 2896-2898	3.4	29
151	Validity domain and limitation of non-retarded Green's tensor for electromagnetic scattering at surfaces. *Optics Communications*, **2000**, 184, 37-47	2	29
150	Channel and wedge plasmon modes of metallic V-grooves with finite metal thickness. *Optics Express*, **2009**, 17, 2364-74	3.3	28
149	Reversal of the optical force in a plasmonic trap. *Optics Letters*, **2008**, 33, 3001-3	3	28
148	Highly Improved Fabrication of Ag and Al Nanostructures for UV and Nonlinear Plasmonics. *Advanced Optical Materials*, **2016**, 4, 871-876	8.1	28

147	Refractive index sensing with Fano resonant plasmonic nanostructures: a symmetry based nonlinear approach. *Nanoscale*, **2014**, 6, 15262-70	7.7	27
146	Self-Similarity of Plasmon Edge Modes on Koch Fractal Antennas. *ACS Nano*, **2017**, 11, 11240-11249	16.7	27
145	Scattering on plasmonic nanostructures arrays modeled with a surface integral formulation. *Photonics and Nanostructures - Fundamentals and Applications*, **2010**, 8, 278-284	2.6	27
144	Narrow-band multiresonant plasmon nanostructure for the coherent control of light: an optical analog of the xylophone. *Physical Review Letters*, **2008**, 100, 117402	7.4	27
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142	Coupling of multiple LSP and SPP resonances: interactions between an elongated nanoparticle and a thin metallic film. *Optics Letters*, **2013**, 38, 4758-61	3	25
141	Twisting Fluorescence through Extrinsic Chiral Antennas. *Nano Letters*, **2017**, 17, 2265-2272	11.5	24
140	Evaluation of the nonlinear response of plasmonic metasurfaces: Miller□ rule, nonlinear effective susceptibility method, and full-wave computation. *Journal of the Optical Society of America B: Optical Physics*, **2016**, 33, A8	1.7	24
139	Reusable plasmonic substrates fabricated by interference lithography: a platform for systematic sensing studies. *Journal of Raman Spectroscopy*, **2013**, 44, 170-175	2.3	24
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136	Sensing the dynamics of oxidative stress using enhanced absorption in protein-loaded random media. *Scientific Reports*, **2013**, 3, 3447	4.9	23
135	Narrowband optical interactions in a plasmonic nanoparticle chain coupled to a metallic film. *Optics Letters*, **2009**, 34, 1405-7	3	23
134	Lifetime of an emitting dipole near various types of interfaces including magnetic and negative refractive materials. *Journal of Chemical Physics*, **2004**, 121, 11358-61	3.9	23
133	Quantitative Extraction of Equivalent Lumped Circuit Elements for Complex Plasmonic Nanostructures. *ACS Photonics*, **2014**, 1, 403-407	6.3	22
132	A zeptoliter volume meter for analysis of single protein molecules. *Nano Letters*, **2012**, 12, 370-5	11.5	22
131	Optical forces in coupled plasmonic nanosystems: Near field and far field interaction regimes. *Optics Express*, **2007**, 15, 9631-44	3.3	22
130	Direct Comparison of Second Harmonic Generation and Two-Photon Photoluminescence from Single Connected Gold Nanodimers. *Journal of Physical Chemistry C*, **2016**, 120, 17699-17710	3.8	22

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121	Plasmonic trapping with realistic dipole nanoantennas: Analysis of the detection limit. *Applied Physics Letters*, **2011**, 99, 151104	3.4	17
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117	Fluorescence resonant energy transfer in the optical near field. *Physical Review A*, **2003**, 67,	2.6	16
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115	A miniaturized electrochemical assay for homocysteine using screen-printed electrodes with cytochrome c anchored gold nanoparticles. *Analyst, The*, **2015**, 140, 6071-8	5	15
114	Wavevector-Selective Nonlinear Plasmonic Metasurfaces. *Nano Letters*, **2017**, 17, 5258-5263	11.5	15
113	Portable oxidative stress sensor: dynamic and non-invasive measurements of extracellular H□□ released by algae. *Biosensors and Bioelectronics*, **2015**, 68, 245-252	11.8	15
112	Prospects of Resonant Optical Antennas for Nano-Analysis. *Chimia*, **2006**, 60, 765-769	1.3	15

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108	Electrodynamics in complex systems: Application to near-field probing of optical microresonators. *Physical Review E*, **1996**, 54, 5752-5760	2.4	15
107	Contrast mechanisms in high-resolution contact lithography: A comparative study. *Microelectronic Engineering*, **2001**, 57-58, 109-116	2.5	14
106	Teaching optics to a machine learning network. *Optics Letters*, **2020**, 45, 2922-2925	3	14
105	Color-Selective and Versatile Light Steering with up-Scalable Subwavelength Planar Optics. *ACS Photonics*, **2017**, 4, 1060-1066	6.3	13
104	Manipulating the Optical Bistability in a Nonlinear Plasmonic Nanoantenna Array with a Reflecting Surface. *Plasmonics*, **2015**, 10, 203-209	2.4	13
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86	Dynamics of Second-Harmonic Generation in a Plasmonic Silver Nanorod. *ACS Photonics*, **2018**, 5, 3246-3254	6.4	11
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81	Mode Evolution in Strongly Coupled Plasmonic Dolmens Fabricated by Templated Assembly. *ACS Photonics*, **2017**, 4, 1661-1668	6.3	9
80	Highly sensitive SERS analysis of the cyclic Arg-Gly-Asp peptide ligands of cells using nanogap antennas. *Journal of Biophotonics*, **2017**, 10, 294-302	3.1	8
79	Simulation of complex plasmonic circuits including bends. *Optics Express*, **2011**, 19, 18979-88	3.3	8
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70	A fully vectorial technique for scattering and propagation in three-dimensional stratified photonic structures. *Optical and Quantum Electronics*, **2001**, 33, 315-325	2.4	7
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68	Orientation Dependence of Plasmonically Enhanced Spontaneous Emission. *Journal of Physical Chemistry C*, **2016**, 120, 21037-21046	3.8	6
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