Rupert F Oulton

List of Publications by Year
in descending order

95	11,087	71061 41	60583 81
papers	citations	h-index	g-index

96	96	96	9496
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Plasmon lasers at deep subwavelength scale. Nature, 2009, 461, 629-632.	13.7	2,277
2	A hybrid plasmonic waveguide for subwavelength confinement and long-range propagation. Nature Photonics, 2008, 2, 496-500.	15.6	1,819
3	Room-temperature sub-diffraction-limited plasmon laser by total internal reflection. Nature Materials, 2011, 10, 110-113.	13.3	546
4	Active nanoplasmonic metamaterials. Nature Materials, 2012, 11, 573-584.	13.3	502
5	Non-plasmonic nanoantennas for surface enhanced spectroscopies with ultra-low heat conversion. Nature Communications, 2015, 6, 7915.	5.8	433
6	Enhanced Third Harmonic Generation in Single Germanium Nanodisks Excited at the Anapole Mode. Nano Letters, 2016, 16, 4635-4640.	4.5	355
7	Applications of nanolasers. Nature Nanotechnology, 2019, 14, 12-22.	15.6	343
8	Toward integrated plasmonic circuits. MRS Bulletin, 2012, 37, 728-738.	1.7	269
9	Confinement and propagation characteristics of subwavelength plasmonic modes. New Journal of Physics, 2008, 10, 105018.	1.2	264
10	Ultrafast plasmonic nanowire lasers near the surface plasmon frequency. Nature Physics, 2014, 10, 870-876.	6.5	262
11	Plasmon lasers: coherent light source at molecular scales. Laser and Photonics Reviews, 2013, 7, 1-21.	4.4	248
12	Experimental demonstration of low-loss optical waveguiding at deep sub-wavelength scales. Nature Communications, 2011, 2, .	5.8	216
13	Optical Forces in Hybrid Plasmonic Waveguides. Nano Letters, 2011, 11, 321-328.	4.5	213
14	Efficient Third Harmonic Generation and Nonlinear Subwavelength Imaging at a Higher-Order Anapole Mode in a Single Germanium Nanodisk. ACS Nano, 2017, 11, 953-960.	7.3	201
15	Ten years of spasers and plasmonic nanolasers. Light: Science and Applications, 2020, 9, 90.	7.7	192
16	Multiresonant Broadband Optical Antennas As Efficient Tunable Nanosources of Second Harmonic Light. Nano Letters, 2012, 12, 4997-5002.	4.5	184
17	Ultranarrow coupling-induced transparency bands in hybrid plasmonic systems. Physical Review B, 2009, 80, .	1.1	172
18	Plasmonic Fabry-PÃ©rot Nanocavity. Nano Letters, 2009, 9, 3489-3493.	4.5	148

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19	Excitonâ€“Plasmon Coupling and Electromagnetically Induced Transparency in Monolayer Semiconductors Hybridized with Ag Nanoparticles. Advanced Materials, 2016, 28, 2709-2715.	11.1	115
20	Multiplexed and Electrically Modulated Plasmon Laser Circuit. Nano Letters, 2012, 12, 5396-5402.	4.5	106
21	Giant nonlinear response at a plasmonic nanofocus drives efficient four-wave mixing. Science, 2017, 358, 1179-1181.	6.0	102
22	Strongly Enhanced Molecular Fluorescence inside a Nanoscale Waveguide Gap. Nano Letters, 2011, 11, 4907-4911.	4.5	94
23	Nonlinear Quantum Optics in a Waveguide: Distinct Single Photons Strongly Interacting at the Single Atom Level. Physical Review Letters, 2011, 106, 113601.	2.9	94
24	Surface plasmon lasers: sources of nanoscopic light. Materials Today, 2012, 15, 26-34.	8.3	93
25	Quantifying Figures of Merit for Localized Surface Plasmon Resonance Applications: A Materials Survey. ACS Photonics, 2019, 6, 240-259.	3.2	93
26	Unusual scaling laws for plasmonic nanolasers beyond the diffraction limit. Nature Communications, 2017, 8, 1889.	5.8	92
27	Titanium Oxynitride Thin Films with Tunable Double Epsilon-Near-Zero Behavior for Nanophotonic Applications. ACS Applied Materials & Interfaces, 2017, 9, 29857-29862.	4.0	91
28	Organicâ€“inorganic perovskite plasmonic nanowire lasers with a low threshold and a good thermal stability. Nanoscale, 2016, 8, 19536-19540.	2.8	85
29	Scattering of core-shell nanowires with the interference of electric and magnetic resonances. Optics Letters, 2013, 38, 2621.	1.7	75
30	Ultrafast All-Optical Modulation in 2D Hybrid Perovskites. ACS Nano, 2019, 13, 9504-9510.	7.3	71
31	Degenerate Four-Wave Mixing in a Multiresonant Germanium Nanodisk. ACS Photonics, 2017, 4, 2144-2149.	3.2	70
32	The Interplay of Symmetry and Scattering Phase in Second Harmonic Generation from Gold Nanoantennas. Nano Letters, 2016, 16, 5278-5285.	4.5	69
33	Plasmon induced thermoelectric effect in graphene. Nature Communications, 2018, 9, 5190.	5.8	67
34	Ultrafast subâ€“30-fs all-optical switching based on gallium phosphide. Science Advances, 2019, 5, eaaw3262.	4.7	61
35	Efficient ultrafast all-optical modulation in a nonlinear crystalline gallium phosphide nanodisk at the anapole excitation. Science Advances, 2020, 6, .	4.7	61
36	Adiabatic Nanofocusing in Hybrid Gap Plasmon Waveguides on the Silicon-on-Insulator Platform. Nano Letters, 2016, 16, 1410-1414.	4.5	57

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37	Giant and Tunable Optical Nonlinearity in Singleâ€Crystalline 2D Perovskites due to Excitonic and Plasma Effects. Advanced Materials, 2019, 31, e1902685.	11.1	56
38	Ultrafast Dynamics of Lasing Semiconductor Nanowires. Nano Letters, 2015, 15, 4637-4643.	4.5	51
39	Anomalous spectral scaling of light emission rates in low-dimensional metallic nanostructures. Physical Review B, 2011, 83, .	1.1	50
40	Plasmon-Induced Optical Anisotropy in Hybrid Grapheneâ€“Metal Nanoparticle Systems. Nano Letters, 2015, 15, 3458-3464.	4.5	48
41	Sub-20 fs All-Optical Switching in a Single Au-Clad Si Nanodisk. Nano Letters, 2018, 18, 7896-7900.	4.5	45
42	Strong coupling in organic semiconductor microcavities. Semiconductor Science and Technology, 2003, 18, S419-S427.	1.0	42
43	On long-range plasmonic modes in metallic gaps. Optics Express, 2007, 15, 13669.	1.7	37
44	Loss and gain. Nature Photonics, 2012, 6, 219-221.	15.6	36
45	Silicon-based metal-loaded plasmonic waveguides for low-loss nanofocusing. Optics Letters, 2014, 39, 4356.	1.7	35
46	TiO_{2â€“x}-Enhanced IR Hot Carrier Based Photodetection in Metal Thin Filmâ€“Si Junctions. ACS Photonics, 2019, 6, 953-960.	3.2	31
47	Degenerate four-wave mixing in silicon hybrid plasmonic waveguides. Optics Letters, 2016, 41, 155.	1.7	30
48	Active Plasmonics: Surface Plasmon Interaction With Optical Emitters. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 1395-1403.	1.9	29
49	Spectral interferometric microscopy reveals absorption by individual optical nanoantennas from extinction phase. Nature Communications, 2014, 5, 3748.	5.8	25
50	Geometric interpretations for resonances of plasmonic nanoparticles. Scientific Reports, 2015, 5, 12148.	1.6	25
51	Mode Switching and Filtering in Nanowire Lasers. Nano Letters, 2016, 16, 2878-2884.	4.5	25
52	Hybrid plasmonic waveguide coupling of photons from a single molecule. APL Photonics, 2019, 4, .	3.0	25
53	Highly Stable Plasmon Induced Hot Hole Transfer into Silicon via a SrTiO₃ Passivation Interface. Advanced Functional Materials, 2018, 28, 1705829.	7.8	24
54	Plasmon-Enhanced Electron Harvesting in Robust Titanium Nitride Nanostructures. Journal of Physical Chemistry C, 2019, 123, 18521-18527.	1.5	23

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55	Compact Optical Antenna Coupler for Silicon Photonics Characterized by Third-Harmonic Generation. ACS Photonics, 2014, 1, 912-916.	3.2	22
56	Influence of Silver Film Quality on the Threshold of Plasmonic Nanowire Lasers. Advanced Optical Materials, 2017, 5, 1600856.	3.6	22
57	Dynamics of hot electron generation in metallic nanostructures: general discussion. Faraday Discussions, 2019, 214, 123-146.	1.6	21
58	Double Blind Ultrafast Pulse Characterization by Mixed Frequency Generation in a Gold Antenna. ACS Photonics, 2018, 5, 3166-3171.	3.2	20
59	Recovering parity-time symmetry in highly dispersive coupled optical waveguides. New Journal of Physics, 2016, 18, 125012.	1.2	19
60	Plasmon-Driven Hot Electron Transfer at Atomically Sharp Metalâ€“Semiconductor Nanojunctions. ACS Photonics, 2020, 7, 1642-1648.	3.2	18
61	Nonlinear Pancharatnamâ^'Berry Phase Metasurfaces beyond the Dipole Approximation. ACS Photonics, 2019, 6, 2335-2341.	3.2	17
62	Nanoscale aluminum plasmonic waveguide with monolithically integrated germanium detector. Applied Physics Letters, 2019, 115, .	1.5	17
63	Special Topic: Quantum sensing with correlated light sources. Applied Physics Letters, 2021, 118, .	1.5	17
64	Nanofocusing in SOI-based hybrid plasmonic metal slot waveguides. Optics Express, 2018, 26, 30634.	1.7	17
65	Slow-light dispersion by transparent waveguide plasmon polaritons. Physical Review B, 2012, 85, .	1.1	15
66	Efficient low dispersion compact plasmonic-photonic coupler. Optics Express, 2012, 20, 12359.	1.7	14
67	Optical characterization of GaAs pyramid microstructures formed by molecular beam epitaxial regrowth on pre-patterned substrates. Journal of Applied Physics, 2001, 90, 475-480.	1.1	11
68	Hybrid gap plasmon GaAs nanolasers. Applied Physics Letters, 2017, 111, 261107.	1.5	10
69	Heralded spectroscopy with a fiber photon-pair source. Applied Physics Letters, 2020, 117, .	1.5	9
70	Hot electron physics and applications. Journal of Applied Physics, 2021, 129, .	1.1	8
71	Global optimization and modeling techniques for planar multilayered dielectric structures. Applied Optics, 2006, 45, 5910.	2.1	7
72	Non-stationary statistics and formation jitter in transient photon condensation. Nature Communications, 2020, 11, 1390.	5.8	7

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73	Imaging through the looking-glass. Nature Physics, 2013, 9, 323-324.	6.5	6
74	Measuring chromatic aberrations in imaging systems using plasmonic nanoparticles. Optics Letters, 2016, 41, 1688.	1.7	6
75	Feasibility of GaAsâ€based metal strip surface plasmon nanoâ€lasers. IET Optoelectronics, 2014, 8, 122-128.	1.8	5
76	An undergraduate experiment demonstrating the physics of metamaterials with acoustic waves and soda cans. American Journal of Physics, 2016, 84, 14-20.	0.3	4
77	Learning the Fuzzy Phases of Small Photonic Condensates. Physical Review Letters, 2021, 126, 150602.	2.9	4
78	Transport and localization of light inside a dye-filled microcavity. Physical Review A, 2020, 102, .	1.0	3
79	Stimulated Raman Scattering in Ge Nanowires. Journal of Physical Chemistry C, 2020, 124, 13872-13877.	1.5	3
80	Optical coherence of planar microcavity emission. Applied Physics B: Lasers and Optics, 2005, 80, 817-821.	1.1	2
81	Plasmonic CROWs for Tunable Dispersion and High Quality Cavity Modes. Scientific Reports, 2015, 5, 17724.	1.6	2
82	Ultrafast ZnO nanowire lasers: nanoplasmonic acceleration of gain dynamics at the surface plasmon polariton frequency. , 2014, , .		2
83	Hot carrier optoelectronics with titanium nitride. , 2020, , .		1
84	Efficient four wave mixing and low-loss in-coupling in hybrid gap plasmonic waveguides. , 2019, , .		1
85	Integrated hybrid nanophotonics. , 2011, , .		0
86	Hybrid Plasmonic Strip and Slot Waveguides for Deep Subwavelength Nanofocusing of TE and TM Modes. , 2014, , .		0
87	IR hot carrier based photodetection in titanium nitride oxide thin film-Si junctions. MRS Advances, 2020, 5, 1843-1850.	0.5	0
88	Printed Plasmonic GaAs Nanolasers. , 2016, , .		0
89	Ultrafast ZnO nanowire lasers: nanoplasmonic acceleration of gain dynamics at the surface plasmon polariton frequency. , 2016, , .		0
90	Giant nonlinear response at a plasmonic nanofocus drives efficient four wave mixing over micron length scales. , 2018, , .		0

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91	Plasmonic photo-thermo-electric effect in graphene. , 2019, , .		0
92	Efficient four wave mixing and low-loss adiabatic incoupling in hybrid gap plasmonic waveguides. , 2020, , .		0
93	Mixed order nonlinear processes from metasurfaces of multi-resonant gold antennas. , 2020, , .		0
94	Nonlinear Geometric Phase Gradient Metasurfaces beyond the Dipole Approximation. , 2020, , .		0
95	A Fiber Photon-Pair Source for Enhanced Spectroscopy and Imaging. , 2021, , .		0