

Rupert F Oulton

List of Publications by Year in descending order

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95
papers

11,087
citations

70961

41
h-index

60497

81
g-index

96
all docs

96
docs citations

96
times ranked

9496
citing authors

#	ARTICLE	IF	CITATIONS
1	Special Topic: Quantum sensing with correlated light sources. Applied Physics Letters, 2021, 118, .	1.5	17
2	Learning the Fuzzy Phases of Small Photonic Condensates. Physical Review Letters, 2021, 126, 150602.	2.9	4
3	Hot electron physics and applications. Journal of Applied Physics, 2021, 129, .	1.1	8
4	A Fiber Photon-Pair Source for Enhanced Spectroscopy and Imaging. , 2021, , .		0
5	Heralded spectroscopy with a fiber photon-pair source. Applied Physics Letters, 2020, 117, .	1.5	9
6	Efficient ultrafast all-optical modulation in a nonlinear crystalline gallium phosphide nanodisk at the anapole excitation. Science Advances, 2020, 6, .	4.7	61
7	Transport and localization of light inside a dye-filled microcavity. Physical Review A, 2020, 102, .	1.0	3
8	Stimulated Raman Scattering in Ge Nanowires. Journal of Physical Chemistry C, 2020, 124, 13872-13877.	1.5	3
9	Non-stationary statistics and formation jitter in transient photon condensation. Nature Communications, 2020, 11, 1390.	5.8	7
10	Plasmon-Driven Hot Electron Transfer at Atomically Sharp Metal-Semiconductor Nanojunctions. ACS Photonics, 2020, 7, 1642-1648.	3.2	18
11	IR hot carrier based photodetection in titanium nitride oxide thin film-Si junctions. MRS Advances, 2020, 5, 1843-1850.	0.5	0
12	Ten years of spasers and plasmonic nanolasers. Light: Science and Applications, 2020, 9, 90.	7.7	192
13	Hot carrier optoelectronics with titanium nitride. , 2020, , .		1
14	Efficient four wave mixing and low-loss adiabatic incoupling in hybrid gap plasmonic waveguides. , 2020, , .		0
15	Mixed order nonlinear processes from metasurfaces of multi-resonant gold antennas. , 2020, , .		0
16	Nonlinear Geometric Phase Gradient Metasurfaces beyond the Dipole Approximation. , 2020, , .		0
17	Nonlinear Pancharatnam-Berry Phase Metasurfaces beyond the Dipole Approximation. ACS Photonics, 2019, 6, 2335-2341.	3.2	17
18	Ultrafast All-Optical Modulation in 2D Hybrid Perovskites. ACS Nano, 2019, 13, 9504-9510.	7.3	71

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19	Plasmon-Enhanced Electron Harvesting in Robust Titanium Nitride Nanostructures. Journal of Physical Chemistry C, 2019, 123, 18521-18527.	1.5	23
20	Hybrid plasmonic waveguide coupling of photons from a single molecule. APL Photonics, 2019, 4, .	3.0	25
21	Nanoscale aluminum plasmonic waveguide with monolithically integrated germanium detector. Applied Physics Letters, 2019, 115, .	1.5	17
22	Quantifying Figures of Merit for Localized Surface Plasmon Resonance Applications: A Materials Survey. ACS Photonics, 2019, 6, 240-259.	3.2	93
23	Giant and Tunable Optical Nonlinearity in Single-Crystalline 2D Perovskites due to Excitonic and Plasma Effects. Advanced Materials, 2019, 31, e1902685.	11.1	56
24	Ultrafast sub-30-fs all-optical switching based on gallium phosphide. Science Advances, 2019, 5, eaaw3262.	4.7	61
25	Dynamics of hot electron generation in metallic nanostructures: general discussion. Faraday Discussions, 2019, 214, 123-146.	1.6	21
26	TiO ₂ -Enhanced IR Hot Carrier Based Photodetection in Metal Thin Film-Si Junctions. ACS Photonics, 2019, 6, 953-960.	3.2	31
27	Applications of nanolasers. Nature Nanotechnology, 2019, 14, 12-22.	15.6	343
28	Efficient four wave mixing and low-loss in-coupling in hybrid gap plasmonic waveguides. , 2019, , .		1
29	Plasmonic photo-thermo-electric effect in graphene. , 2019, , .		0
30	Highly Stable Plasmon Induced Hot Hole Transfer into Silicon via a SrTiO ₃ Passivation Interface. Advanced Functional Materials, 2018, 28, 1705829.	7.8	24
31	Sub-20 fs All-Optical Switching in a Single Au-Clad Si Nanodisk. Nano Letters, 2018, 18, 7896-7900.	4.5	45
32	Plasmon induced thermoelectric effect in graphene. Nature Communications, 2018, 9, 5190.	5.8	67
33	Double Blind Ultrafast Pulse Characterization by Mixed Frequency Generation in a Gold Antenna. ACS Photonics, 2018, 5, 3166-3171.	3.2	20
34	Nanofocusing in SOI-based hybrid plasmonic metal slot waveguides. Optics Express, 2018, 26, 30634.	1.7	17
35	Giant nonlinear response at a plasmonic nanofocus drives efficient four wave mixing over micron length scales. , 2018, , .		0
36	Influence of Silver Film Quality on the Threshold of Plasmonic Nanowire Lasers. Advanced Optical Materials, 2017, 5, 1600856.	3.6	22

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37	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
38	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
39	Degenerate Four-Wave Mixing in a Multiresonant Germanium Nanodisk. ACS Photonics, 2017, 4, 2144-2149.	3.2	70
40	Giant nonlinear response at a plasmonic nanofocus drives efficient four-wave mixing. Science, 2017, 358, 1179-1181.	6.0	102
41	Hybrid gap plasmon GaAs nanolasers. Applied Physics Letters, 2017, 111, 261107.	1.5	10
42	Unusual scaling laws for plasmonic nanolasers beyond the diffraction limit. Nature Communications, 2017, 8, 1889.	5.8	92
43	Recovering parity-time symmetry in highly dispersive coupled optical waveguides. New Journal of Physics, 2016, 18, 125012.	1.2	19
44	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
45	Measuring chromatic aberrations in imaging systems using plasmonic nanoparticles. Optics Letters, 2016, 41, 1688.	1.7	6
46	The Interplay of Symmetry and Scattering Phase in Second Harmonic Generation from Gold Nanoantennas. Nano Letters, 2016, 16, 5278-5285.	4.5	69
47	Organic-inorganic perovskite plasmonic nanowire lasers with a low threshold and a good thermal stability. Nanoscale, 2016, 8, 19536-19540.	2.8	85
48	Exciton-Plasmon Coupling and Electromagnetically Induced Transparency in Monolayer Semiconductors Hybridized with Ag Nanoparticles. Advanced Materials, 2016, 28, 2709-2715.	11.1	115
49	Enhanced Third Harmonic Generation in Single Germanium Nanodisks Excited at the Anapole Mode. Nano Letters, 2016, 16, 4635-4640.	4.5	355
50	Adiabatic Nanofocusing in Hybrid Gap Plasmon Waveguides on the Silicon-on-Insulator Platform. Nano Letters, 2016, 16, 1410-1414.	4.5	57
51	Degenerate four-wave mixing in silicon hybrid plasmonic waveguides. Optics Letters, 2016, 41, 155.	1.7	30
52	Mode Switching and Filtering in Nanowire Lasers. Nano Letters, 2016, 16, 2878-2884.	4.5	25
53	Printed Plasmonic GaAs Nanolasers. , 2016, , .		0
54	Ultrafast ZnO nanowire lasers: nanoplasmonic acceleration of gain dynamics at the surface plasmon polariton frequency. , 2016, , .		0

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55	Geometric interpretations for resonances of plasmonic nanoparticles. <i>Scientific Reports</i> , 2015, 5, 12148.	1.6	25
56	Plasmonic CROWs for Tunable Dispersion and High Quality Cavity Modes. <i>Scientific Reports</i> , 2015, 5, 17724.	1.6	2
57	Non-plasmonic nanoantennas for surface enhanced spectroscopies with ultra-low heat conversion. <i>Nature Communications</i> , 2015, 6, 7915.	5.8	433
58	Ultrafast Dynamics of Lasing Semiconductor Nanowires. <i>Nano Letters</i> , 2015, 15, 4637-4643.	4.5	51
59	Plasmon-Induced Optical Anisotropy in Hybrid Graphene-Metal Nanoparticle Systems. <i>Nano Letters</i> , 2015, 15, 3458-3464.	4.5	48
60	Feasibility of GaAs-based metal strip surface plasmon nano-lasers. <i>IET Optoelectronics</i> , 2014, 8, 122-128.	1.8	5
61	Silicon-based metal-loaded plasmonic waveguides for low-loss nanofocusing. <i>Optics Letters</i> , 2014, 39, 4356.	1.7	35
62	Hybrid Plasmonic Strip and Slot Waveguides for Deep Subwavelength Nanofocusing of TE and TM Modes. , 2014, , .		0
63	Spectral interferometric microscopy reveals absorption by individual optical nanoantennas from extinction phase. <i>Nature Communications</i> , 2014, 5, 3748.	5.8	25
64	Compact Optical Antenna Coupler for Silicon Photonics Characterized by Third-Harmonic Generation. <i>ACS Photonics</i> , 2014, 1, 912-916.	3.2	22
65	Ultrafast plasmonic nanowire lasers near the surface plasmon frequency. <i>Nature Physics</i> , 2014, 10, 870-876.	6.5	262
66	Ultrafast ZnO nanowire lasers: nanoplasmonic acceleration of gain dynamics at the surface plasmon polariton frequency. , 2014, , .		2
67	Plasmon lasers: coherent light source at molecular scales. <i>Laser and Photonics Reviews</i> , 2013, 7, 1-21.	4.4	248
68	Imaging through the looking-glass. <i>Nature Physics</i> , 2013, 9, 323-324.	6.5	6
69	Scattering of core-shell nanowires with the interference of electric and magnetic resonances. <i>Optics Letters</i> , 2013, 38, 2621.	1.7	75
70	Efficient low dispersion compact plasmonic-photonic coupler. <i>Optics Express</i> , 2012, 20, 12359.	1.7	14
71	Active nanoplasmonic metamaterials. <i>Nature Materials</i> , 2012, 11, 573-584.	13.3	502
72	Multiresonant Broadband Optical Antennas As Efficient Tunable Nanosources of Second Harmonic Light. <i>Nano Letters</i> , 2012, 12, 4997-5002.	4.5	184

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73	Toward integrated plasmonic circuits. MRS Bulletin, 2012, 37, 728-738.	1.7	269
74	Multiplexed and Electrically Modulated Plasmon Laser Circuit. Nano Letters, 2012, 12, 5396-5402.	4.5	106
75	Slow-light dispersion by transparent waveguide plasmon polaritons. Physical Review B, 2012, 85, .	1.1	15
76	Loss and gain. Nature Photonics, 2012, 6, 219-221.	15.6	36
77	Surface plasmon lasers: sources of nanoscopic light. Materials Today, 2012, 15, 26-34.	8.3	93
78	Strongly Enhanced Molecular Fluorescence inside a Nanoscale Waveguide Gap. Nano Letters, 2011, 11, 4907-4911.	4.5	94
79	Optical Forces in Hybrid Plasmonic Waveguides. Nano Letters, 2011, 11, 321-328.	4.5	213
80	Room-temperature sub-diffraction-limited plasmon laser by total internal reflection. Nature Materials, 2011, 10, 110-113.	13.3	546
81	Experimental demonstration of low-loss optical waveguiding at deep sub-wavelength scales. Nature Communications, 2011, 2, .	5.8	216
82	Integrated hybrid nanophotonics. , 2011, , .		0
83	Anomalous spectral scaling of light emission rates in low-dimensional metallic nanostructures. Physical Review B, 2011, 83, .	1.1	50
84	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
85	Plasmon lasers at deep subwavelength scale. Nature, 2009, 461, 629-632.	13.7	2,277
86	Plasmonic Fabry-Pérot Nanocavity. Nano Letters, 2009, 9, 3489-3493.	4.5	148
87	Ultranarrow coupling-induced transparency bands in hybrid plasmonic systems. Physical Review B, 2009, 80, .	1.1	172
88	Active Plasmonics: Surface Plasmon Interaction With Optical Emitters. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 1395-1403.	1.9	29
89	A hybrid plasmonic waveguide for subwavelength confinement and long-range propagation. Nature Photonics, 2008, 2, 496-500.	15.6	1,819
90	Confinement and propagation characteristics of subwavelength plasmonic modes. New Journal of Physics, 2008, 10, 105018.	1.2	264

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91	On long-range plasmonic modes in metallic gaps. <i>Optics Express</i> , 2007, 15, 13669.	1.7	37
92	Global optimization and modeling techniques for planar multilayered dielectric structures. <i>Applied Optics</i> , 2006, 45, 5910.	2.1	7
93	Optical coherence of planar microcavity emission. <i>Applied Physics B: Lasers and Optics</i> , 2005, 80, 817-821.	1.1	2
94	Strong coupling in organic semiconductor microcavities. <i>Semiconductor Science and Technology</i> , 2003, 18, S419-S427.	1.0	42
95	Optical characterization of GaAs pyramid microstructures formed by molecular beam epitaxial regrowth on pre-patterned substrates. <i>Journal of Applied Physics</i> , 2001, 90, 475-480.	1.1	11