Lynford L Goddard

List of Publications by Year
in descending order

68	1,792	394421 19	276875 41
papers	citations	h-index	g-index

68	68	68	1624
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	White-light diffraction tomography of unlabelled live cells. Nature Photonics, 2014, 8, 256-263.	31.4	385
2	Diffraction phase microscopy: principles and applications in materials and life sciences. Advances in Optics and Photonics, 2014, 6, 57.	25.5	317
3	Optically monitoring and controlling nanoscale topography during semiconductor etching. Light: Science and Applications, 2012, 1, e30-e30.	16.6	108
4	Detecting 20 nm Wide Defects in Large Area Nanopatterns Using Optical Interferometric Microscopy. Nano Letters, 2013, 13, 3716-3721.	9.1	85
5	Fast phase reconstruction in white light diffraction phase microscopy. Applied Optics, 2013, 52, A97.	1.8	73
6	Direct laser writing of volumetric gradient index lenses and waveguides. Light: Science and Applications, 2020, 9, 196.	16.6	66
7	Realization of a narrowband single wavelength microring mirror. Applied Physics Letters, 2011, 99, .	3.3	62
8	Solving inverse scattering problems in biological samples by quantitative phase imaging. Laser and Photonics Reviews, 2016, 10, 13-39.	8.7	62
9	All-dielectric concentration of electromagnetic fields at the nanoscale: the role of photonic nanojets. Nanoscale Advances, 2019, 1, 4615-4643.	4.6	49
10	Diffraction phase microscopy: monitoring nanoscale dynamics in materials science [Invited]. Applied Optics, 2014, 53, G33.	1.8	46
11	Realization of alignment-tolerant grating couplers for z-cut thin-film lithium niobate. Optics Express, 2019, 27, 15856.	3.4	39
12	Spectrometer-Free Plasmonic Biosensing with Metalâ€“Insulatorâ€“Metal Nanocup Arrays. ACS Sensors, 2018, 3, 290-298.	7.8	33
13	High performance fully etched isotropic microring resonators in thin-film lithium niobate on insulator platform. Optics Express, 2019, 27, 22025.	3.4	32
14	Fundamental electro-optic limitations of thin-film lithium niobate microring modulators. Optics Express, 2020, 28, 13731.	3.4	29
15	A microring resonator with an integrated Bragg grating: a compact replacement for a sampled grating distributed Bragg reflector. Optical and Quantum Electronics, 2009, 41, 689-697.	3.3	28
16	Plasmonic Sensing of Oncoproteins without Resonance Shift Using 3D Periodic Nanocavity in Nanocup Arrays. Advanced Optical Materials, 2017, 5, 1601051.	7.3	24
17	Hydrogen Detection Using a Functionalized Photonic Crystal Vertical Cavity Laser. IEEE Journal of Quantum Electronics, 2012, 48, 160-168.	1.9	23
18	Ultra-efficient and fully isotropic monolithic microring modulators in a thin-film lithium niobate photonics platform. Optics Express, 2020, 28, 29644.	3.4	23

#	Article	IF	Citations
19	Measuring the Nonuniform Evaporation Dynamics of Sprayed Sessile Microdroplets with Quantitative Phase Imaging. Langmuir, 2015, 31, 11020-11032.	3.5	20
20	Digital projection photochemical etching defines gray-scale features. Optics Express, 2013, 21, 13547.	3.4	18
21	Spatial control of photonic nanojets. Optics Express, 2016, 24, 30444.	3.4	17
22	Optical inspection of nanoscale structures using a novel machine learning based synthetic image generation algorithm. Optics Express, 2019, 27, 17743.	3.4	17
23	Cylindrical Coordinates Coupled Mode Theory. IEEE Journal of Quantum Electronics, 2010, 46, 1769-1774.	1.9	16
24	Dynamics of Self-Heating in Microring Resonators. IEEE Photonics Journal, 2012, 4, 1702-1711.	2.0	16
25	Regularized pseudo-phase imaging for inspecting and sensing nanoscale features. Optics Express, 2019, 27, 6719.	3.4	16
26	Realization of palladium-based optomechanical cantilever hydrogen sensor. Microsystems and Nanoengineering, 2017, 3, 16087.	7.0	15
27	Plasmonic Metalâ€“Insulatorâ€“Metal Capped Polymer Nanopillars for SERS Analysis of Proteinâ€“Protein Interactions. Journal of Physical Chemistry C, 2018, 122, 6255-6266.	3.1	15
28	Efficient and wideband acousto-optic modulation on thin-film lithium niobate for microwave-to-photonic conversion. Photonics Research, 2021, 9, 1182.	7.0	15
29	Sensing Sub-10 nm Wide Perturbations in Background Nanopatterns Using Optical Pseudoelectrodynamics Microscopy (OPEM). Nano Letters, 2019, 19, 5347-5355.	9.1	12
30	9nm node wafer defect inspection using visible light. Proceedings of SPIE, 2014, , .	0.8	11
31	9nm node wafer defect inspection using three-dimensional scanning, a 405nm diode laser, and a broadband source. Proceedings of SPIE, 2015, , .	0.8	11
32	Enhanced Environmental Scanning Electron Microscopy Using Phase Reconstruction and Its Application in Condensation. ACS Nano, 2019, 13, 1953-1960.	14.6	11
33	Enhanced axial confinement in a monolithically integrated self-rolled-up SiNx vertical microring photonic coupler. Applied Physics Letters, 2016, 109, .	3.3	10
34	Hydrogen Detection Using Polarization Diversity via a Subwavelength Fiber Aperture. IEEE Photonics Journal, 2012, 4, 1752-1761.	2.0	9
35	In situ measurements of the axial expansion of palladium microdisks during hydrogen exposure using diffraction phase microscopy. Optical Materials Express, 2014, 4, 2559.	3.0	9
36	Application of measurement configuration optimization for accurate metrology of sub-wavelength dimensions in multilayer gratings using optical scatterometry. Applied Optics, 2016, 55, 6844.	2.1	9

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37	Compact MZI modulators on thin film Z-cut lithium niobate. Optics Express, 2022, 30, 4543.	3.4	9
38	Visualizable detection of nanoscale objects using anti-symmetric excitation and non-resonance amplification. Nature Communications, 2020, 11, 2754.	12.8	7
39	Toward the realization of subsurface volumetric integrated optical systems. Applied Physics Letters, 2021, 119, .	3.3	5
40	Integrated Optical Resonators: Progress in 2011. IEEE Photonics Journal, 2012, 4, 574-577.	2.0	4
41	Reflective Palladium Nanoapertures on Fiber for Wide Dynamic Range Hydrogen Sensing. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 263-268.	2.9	4
42	Efficient largeâ€scale scattering analysis of objects in a stratified medium. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2020, 33, e2656.	1.9	4
43	Voxelized topology optimization for fabrication-compatible inverse design of 3D photonic devices. Optics Express, 2019, 27, 21988.	3.4	4
44	Baldur: A Power-Efficient and Scalable Network Using All-Optical Switches. , 2020, , .		3
45	An Isotropic Lithium Niobate Microring Resonator with a 1.38-nm Wide Continuous Tuning Range using 80 V. , 2020, , .		3
46	Modal expansion approach for accurately computing resonant modes in a highâ€Q optical resonator. Microwave and Optical Technology Letters, 2014, 56, 278-284.	1.4	2
47	Generalized measurement configuration optimization for accurate reconstruction of periodic nanostructures using optical scatterometry. , 2016, , .		2
48	Low-cost electroluminescence imaging for automated defect characterization in photovoltaic modules. , 2017, , .		2
49	Large-Scale Scattering Analysis of Arbitrary Objects in a Stratified Medium. , 2018, , .		2
50	Quasiâ€Newtonian Environmental Scanning Electron Microscopy (QNâ€ESEM) for Monitoring Material Dynamics in Highâ€Pressure Gaseous Environments. Advanced Science, 2020, 7, 2001268.	11.2	2
51	Resolving split resonant modes in microrings. , 2012, , .		1
52	Diffraction phase microscopy for wafer inspection. , 2012, , .		1
53	Observing hydrogen induced deformations in palladium thin-films. , 2013, , .		1
54	The unperturbed structure in the coupled mode theory of waveguide gratings. , 2014, , .		1

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55	A computational study of a hybrid plasmonic-microring for label-free detection. , 2016, , .		1
56	Controlling Photonic Nanojets: From the Standpoint of Eigenmodes. IEEE Photonics Technology Letters, 2018, 30, 75-78.	2.5	1
57	Theory of Coupled Harmonics and Its Application to Resonant and Non-Resonant Electro-Optic Modulators. Journal of Lightwave Technology, 2020, 38, 5756-5767.	4.6	1
58	Gradient Index Subsurface Micro-Optics. , 2021, , .		1
59	Determination of waveguide core and cladding refractive indices using single wavelength microring reflectors. , 2012, , .		0
60	Functionalized distributed feedback lasers for hydrogen sensing applications. , 2013, , .		0
61	Grating assisted mode coupling in microring resonators. , 2013, , .		0
62	An active-passive monolithic integration platform with low loss passive section. , 2013, , .		0
63	Characterizing microdroplet evaporation using diffraction phase microscopy. , 2014, , .		0
64	Parallel FETI-DP algorithm for defect detection in large-area nanopatterned wafers. , 2016, , .		0
65	Far-field light scattering from sub-wavelength wafer patterns using a parallel FETI-DP algorithm. , 2016, , .		0
66	Biosensors: Plasmonic Sensing of Oncoproteins without Resonance Shift Using 3D Periodic Nanocavity in Nanocup Arrays (Advanced Optical Materials 11/2017). Advanced Optical Materials, 2017, 5, .	7.3	0
67	Diffraction phase microscopy imaging and multi-physics modeling of the nanoscale thermal expansion of a suspended resistor. Scientific Reports, 2017, 7, 4602.	3.3	0
68	Characterization of lithium niobate microdisk resonators with grating couplers. , 2017, , .		0