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	Compact MZI modulators on thin film Z-cut lithium niobate. Optics Express, 2022, 30, 4543.	3.4	9
2	Gradient Index Subsurface Micro-Optics. , 2021, , .		1
3	Efficient and wideband acousto-optic modulation on thin-film lithium niobate for microwave-to-photonic conversion. Photonics Research, 2021, 9, 1182.	7.0	15
4	Toward the realization of subsurface volumetric integrated optical systems. Applied Physics Letters, 2021, 119, .	3.3	5
5	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
6	Direct laser writing of volumetric gradient index lenses and waveguides. Light: Science and Applications, 2020, 9, 196.	16.6	66
7	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
8	Baldur: A Power-Efficient and Scalable Network Using All-Optical Switches. , 2020, , .		3
9	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
10	Visualizable detection of nanoscale objects using anti-symmetric excitation and non-resonance amplification. Nature Communications, 2020, 11, 2754.	12.8	7
11	Fundamental electro-optic limitations of thin-film lithium niobate microring modulators. Optics Express, 2020, 28, 13731.	3.4	29
12	Ultra-efficient and fully isotropic monolithic microring modulators in a thin-film lithium niobate photonics platform. Optics Express, 2020, 28, 29644.	3.4	23
13	An Isotropic Lithium Niobate Microring Resonator with a 1.38-nm Wide Continuous Tuning Range using 80 V. , 2020, , .		3
14	Sensing Sub-10 nm Wide Perturbations in Background Nanopatterns Using Optical Pseudoelectrodynamics Microscopy (OPEM). Nano Letters, 2019, 19, 5347-5355.	9.1	12
15	All-dielectric concentration of electromagnetic fields at the nanoscale: the role of photonic nanojets. Nanoscale Advances, 2019, 1, 4615-4643.	4.6	49
16	Enhanced Environmental Scanning Electron Microscopy Using Phase Reconstruction and Its Application in Condensation. ACS Nano, 2019, 13, 1953-1960.	14.6	11
17	Regularized pseudo-phase imaging for inspecting and sensing nanoscale features. Optics Express, 2019, 27, 6719.	3.4	16
18	Realization of alignment-tolerant grating couplers for z-cut thin-film lithium niobate. Optics Express, 2019, 27, 15856.	3.4	39

#	Article	IF	Citations
19	High performance fully etched isotropic microring resonators in thin-film lithium niobate on insulator platform. Optics Express, 2019, 27, 22025.	3.4	32
20	Optical inspection of nanoscale structures using a novel machine learning based synthetic image generation algorithm. Optics Express, 2019, 27, 17743.	3.4	17
21	Voxelized topology optimization for fabrication-compatible inverse design of 3D photonic devices. Optics Express, 2019, 27, 21988.	3.4	4
22	Controlling Photonic Nanojets: From the Standpoint of Eigenmodes. IEEE Photonics Technology Letters, 2018, 30, 75-78.	2.5	1
23	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
24	Spectrometer-Free Plasmonic Biosensing with Metalâ€“Insulatorâ€“Metal Nanocup Arrays. ACS Sensors, 2018, 3, 290-298.	7.8	33
25	Large-Scale Scattering Analysis of Arbitrary Objects in a Stratified Medium. , 2018, , .		2
26	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
27	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
28	Realization of palladium-based optomechanical cantilever hydrogen sensor. Microsystems and Nanoengineering, 2017, 3, 16087.	7.0	15
29	Plasmonic Sensing of Oncoproteins without Resonance Shift Using 3D Periodic Nanocavity in Nanocup Arrays. Advanced Optical Materials, 2017, 5, 1601051.	7.3	24
30	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
31	Characterization of lithium niobate microdisk resonators with grating couplers. , 2017, , .		0
32	Low-cost electroluminescence imaging for automated defect characterization in photovoltaic modules. , 2017, , .		2
33	Spatial control of photonic nanojets. Optics Express, 2016, 24, 30444.	3.4	17
34	A computational study of a hybrid plasmonic-microring for label-free detection. , 2016, , .		1
35	Enhanced axial confinement in a monolithically integrated self-rolled-up SiNx vertical microring photonic coupler. Applied Physics Letters, 2016, 109, .	3.3	10
36	Parallel FETI-DP algorithm for defect detection in large-area nanopatterned wafers. , 2016, , .		0

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37	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
38	Solving inverse scattering problems in biological samples by quantitative phase imaging. Laser and Photonics Reviews, 2016, 10, 13-39.	8.7	62
39	Far-field light scattering from sub-wavelength wafer patterns using a parallel FETI-DP algorithm. , 2016, , .		0
40	Generalized measurement configuration optimization for accurate reconstruction of periodic nanostructures using optical scatterometry. , 2016, , .		2
41	9nm node wafer defect inspection using three-dimensional scanning, a 405nm diode laser, and a broadband source. Proceedings of SPIE, 2015, , .	0.8	11
42	Measuring the Nonuniform Evaporation Dynamics of Sprayed Sessile Microdroplets with Quantitative Phase Imaging. Langmuir, 2015, 31, 11020-11032.	3.5	20
43	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
44	Diffraction phase microscopy: monitoring nanoscale dynamics in materials science [Invited]. Applied Optics, 2014, 53, G33.	1.8	46
45	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
46	9nm node wafer defect inspection using visible light. Proceedings of SPIE, 2014, , .	0.8	11
47	The unperturbed structure in the coupled mode theory of waveguide gratings. , 2014, , .		1
48	Characterizing microdroplet evaporation using diffraction phase microscopy. , 2014, , .		0
49	White-light diffraction tomography of unlabelled live cells. Nature Photonics, 2014, 8, 256-263.	31.4	385
50	Diffraction phase microscopy: principles and applications in materials and life sciences. Advances in Optics and Photonics, 2014, 6, 57.	25.5	317
51	Observing hydrogen induced deformations in palladium thin-films. , 2013, , .		1
52	Functionalized distributed feedback lasers for hydrogen sensing applications. , 2013, , .		0
53	Grating assisted mode coupling in microring resonators. , 2013, , .		0
54	Detecting 20 nm Wide Defects in Large Area Nanopatterns Using Optical Interferometric Microscopy. Nano Letters, 2013, 13, 3716-3721.	9.1	85

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55	Fast phase reconstruction in white light diffraction phase microscopy. Applied Optics, 2013, 52, A97.	1.8	73
56	Digital projection photochemical etching defines gray-scale features. Optics Express, 2013, 21, 13547.	3.4	18
57	An active-passive monolithic integration platform with low loss passive section. , 2013, , .		0
58	Resolving split resonant modes in microrings. , 2012, , .		1
59	Optically monitoring and controlling nanoscale topography during semiconductor etching. Light: Science and Applications, 2012, 1, e30-e30.	16.6	108
60	Diffraction phase microscopy for wafer inspection. , 2012, , .		1
61	Dynamics of Self-Heating in Microring Resonators. IEEE Photonics Journal, 2012, 4, 1702-1711.	2.0	16
62	Integrated Optical Resonators: Progress in 2011. IEEE Photonics Journal, 2012, 4, 574-577.	2.0	4
63	Determination of waveguide core and cladding refractive indices using single wavelength microring reflectors. , 2012, , .		0
64	Hydrogen Detection Using Polarization Diversity via a Subwavelength Fiber Aperture. IEEE Photonics Journal, 2012, 4, 1752-1761.	2.0	9
65	Hydrogen Detection Using a Functionalized Photonic Crystal Vertical Cavity Laser. IEEE Journal of Quantum Electronics, 2012, 48, 160-168.	1.9	23
66	Realization of a narrowband single wavelength microring mirror. Applied Physics Letters, 2011, 99, .	3.3	62
67	Cylindrical Coordinates Coupled Mode Theory. IEEE Journal of Quantum Electronics, 2010, 46, 1769-1774.	1.9	16
68	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