Nicolas Passilly

List of Publications by Year
in descending order

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Version: 2024-02-01

82 papers	1,264 citations	394421 19 h-index	395702 33 g-index
82 all docs	82 docs citations	82 times ranked	968 citing authors

#	Article	IF	Citations
1	Simple interferometric technique for generation of a radially polarized light beam. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 984.	1.5	131
2	Fabrication of spherical microlenses by a combination of isotropic wet etching of silicon and molding techniques. Optics Express, 2009, 17, 6283.	3.4	103
3	Deep Wet-Etched Silicon Cavities for Micro-Optical Sensors: Influence of Masking on <inline-formula> <tex-math notation="TeX">${111}$ </tex-math></inline-formula> Sidewalls Surface Quality. Journal of Microelectromechanical Systems, 2014, 23, 585-591.	2.5	73
4	Exciting higher-order radial Laguerreâ€“Gaussian modes in a diode-pumped solid-state laser resonator. Applied Optics, 2013, 52, 2093.	1.8	48
5	Nanosecond pulse generation in a passively Q-switched Yb-doped fiber laser by Cr/sup 4+/:YAG saturable absorber. IEEE Photonics Technology Letters, 2006, 18, 764-766.	2.5	47
6	Beam-shaping longitudinal range of a binary diffractive optical element. Applied Optics, 2006, 45, 8136.	2.1	44
7	Real-time Lissajous imaging with a low-voltage 2-axis MEMS scanner based on electrothermal actuation. Optics Express, 2020, 28, 8512.	3.4	40
8	Micromachined array-type Mirau interferometer for parallel inspection of MEMS. Journal of Micromechanics and Microengineering, 2011, 21, 065005.	2.6	37
9	Transverse mode selection in a monolithic microchip laser. Optics Communications, 2011, 284, 5475-5479.	2.1	36
10	Low-cost fabrication of form-birefringent quarter-wave plates. Optics Express, 2008, 16, 16334.	3.4	34
11	Laser light routing in an elongated micromachined vapor cell with diffraction gratings for atomic clock applications. Scientific Reports, 2015, 5, 14001.	3.3	33
12	Demonstration of the mass-producible feature of a Cs vapor microcell technology for miniature atomic clocks. Sensors and Actuators A: Physical, 2018, 280, 99-106.	4.1	30
13	A simple method for quality evaluation of micro-optical components based on 3D IPSF measurement. Optics Express, 2014, 22, 13202.	3.4	27
14	Microfabricated vapor cells filled with a cesium dispensing paste for miniature atomic clocks. Applied Physics Letters, 2017, 110, .	3.3	26
15	Dense arrays of millimeter-sized glass lenses fabricated at wafer-level. Optics Express, 2015, 23, 11702.	3.4	25
16	Experimental and theoretical investigation of a rapidly varying nonlinear lensing effect observed in a Cr^3+:LiSAF laser. Journal of the Optical Society of America B: Optical Physics, 2004, 21, 531.	2.1	22
17	Polarization conversion in conical diffraction by metallic and dielectric subwavelength gratings. Applied Optics, 2007, 46, 4258.	2.1	22
18	Single-step deep reactive ion etching of ultra-deep silicon cavities with smooth sidewalls. Sensors and Actuators A: Physical, 2014, 208, 66-72.	4.1	22

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19	Design and Fabrication of a 2-Axis Electrothermal MEMS Micro-Scanner for Optical Coherence Tomography. Micromachines, 2017, 8, 146.	2.9	22
20	Dual-frequency sub-Doppler spectroscopy: Extended theoretical model and microcell-based experiments. Physical Review A, 2019, 99, .	2.5	21
21	Achromatic phase retardation by subwavelength gratings in total internal reflection. Journal of Optics, 2008, 10, 015001.	1.5	19
22	Transverse superresolution technique involving rectified Laguerreâ€“Gaussian LG^0_p beams. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 1709.	1.5	19
23	Population lensing effect in Cr:LiSAF probed by Z-scan technique. Optics Communications, 2006, 260, 703-707.	2.1	18
24	100 nm period grating by high-index phase-mask immersion lithography. Optics Express, 2010, 18, 10557.	3.4	18
25	Protocol for Light-Shift Compensation in a Continuous-Wave Microcell Atomic Clock. Physical Review Applied, 2020, 14, .	3.8	18
26	Laser beam brightness of apertured optical resonators. Optics Communications, 2006, 264, 193-202.	2.1	17
27	Effects of getters on hermetically sealed micromachined cesiumâ€“neon cells for atomic clocks. Journal of Micromechanics and Microengineering, 2013, 23, 055022.	2.6	17
28	Mitigation of Temperature-Induced Light-Shift Effects in Miniaturized Atomic Clocks. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2019, 66, 1962-1967.	3.0	16
29	1-D laser beam shaping using an adjustable binary diffractive optical element. Optics Communications, 2004, 241, 465-473.	2.1	15
30	Variant of the method of Fox and Li dedicated to intracavity laser beam shaping. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 489.	1.5	15
31	Wafer-Level Fabrication of Microcube-Typed Beam-Splitters by Saw-Dicing of Glass Substrate. IEEE Photonics Technology Letters, 2014, 26, 100-103.	2.5	14
32	Exploring the Use of Ramsey-CPT Spectroscopy for a Microcell-Based Atomic Clock. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 3249-3256.	3.0	14
33	Beam propagation factor of truncated laguerreâ€”gauss beams. Journal of Modern Optics, 2004, 51, 2279-2286.	1.3	13
34	Considerations about Z-scan sensitivity improvement: theory versus experiments. Applied Physics B: Lasers and Optics, 2009, 95, 579-587.	2.2	13
35	Thermal management of fully LTCC-packaged Cs vapour cell for MEMS atomic clock. Sensors and Actuators A: Physical, 2012, 174, 58-68.	4.1	13
36	Characterization of Cs vapor cell coated with octadecyltrichlorosilane using coherent population trapping spectroscopy. Journal of Applied Physics, 2015, 117, 184901.	2.5	13

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37	3D micro-optical lens scanner made by multi-wafer bonding technology. , 2013, , .		10
38	An electrostatic vertical microscanner for phase modulating array-type Mirau microinterferometry. Journal of Micromechanics and Microengineering, 2015, 25, 115013.	2.6	10
39	Swept Source Optical Coherence Tomography Endomicroscope Based on Vertically Integrated Mirau Micro Interferometer: Concept and Technology. IEEE Sensors Journal, 2015, 15, 7061-7070.	4.7	10
40	Short-term stability of Cs microcell-stabilized lasers using dual-frequency sub-Doppler spectroscopy. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 3254.	2.1	9
41	Optical design of a vertically integrated array-type Mirau-based OCT system. Proceedings of SPIE, 2014, , .	0.8	8
42	Wafer-level fabrication of multi-element glass lenses: lens doublet with improved optical performances. Optics Letters, 2016, 41, 96.	3.3	8
43	Microfabrication of axicons by glass blowing at a wafer-level. Optics Letters, 2019, 44, 3282.	3.3	8
44	High-fidelity glass micro-axicons fabricated by laser-assisted wet etching. Optics Express, 2022, 30, 3749.	3.4	8
45	Improvement of the self-Q-switching behavior of a Cr:LiSrAlF_6 laser by use of binary diffractive optics. Applied Optics, 2004, 43, 5047.	2.1	7
46	A high-performance frequency stability compact CPT clock based on a Cs-Ne microcell. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 2584-2587.	3.0	7
47	Micro-optical design of a three-dimensional microlens scanner for vertically integrated micro-opto-electro-mechanical systems. Applied Optics, 2015, 54, 6924.	2.1	7
48	Polarization conversion by dielectric sub-wavelength gratings in conical mounting. Journal of the European Optical Society-Rapid Publications, 0, 3, .	1.9	6
49	Vertical Integration Technologies for Optical Transmissive 3-D Microscanner based on Glass Microlenses. Procedia Engineering, 2012, 47, 1133-1136.	1.2	6
50	Simple method based on intensity measurements for characterization of aberrations from micro-optical components. Applied Optics, 2015, 54, 9060.	2.1	6
51	Light-shift mitigation in a microcell-based atomic clock with symmetric auto-balanced Ramsey spectroscopy. Applied Physics Letters, 2022, 120, .	3.3	6
52	Cascades of Ï€-phase plates: a transparent diffractive focusing system. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2010, 27, 1647.	1.5	5
53	Impact of mirror spider legs on imaging quality in Mirau micro-interferometry. Optics Letters, 2015, 40, 2209.	3.3	5
54	Swept-source optical coherence tomography microsystem with an integrated Mirau interferometer and electrothermal micro-scanner. Optics Letters, 2018, 43, 4847.	3.3	5

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55	Laser Beam Shaping. AIP Conference Proceedings, 2008, , .	0.4	4
56	Matrixes of unconventional micro-optical components molded with etched silicon. Journal of the European Optical Society-Rapid Publications, 0, 5, .	1.9	4
57	Miniature Schwarzschild objective as a micro-optical component free of main aberrations: concept, design, and first realization with silicon-glass micromachining. Applied Optics, 2016, 55, 2771.	2.1	4
58	Diffraction properties of opaque disks outside and inside a laser cavity. Optics Communications, 2008, 281, 444-451.	2.1	3
59	Fabrication of 100% fill factor arrays of microlenses from silicon molds. Proceedings of SPIE, 2012, , .	0.8	3
60	Arrays of millimeter-sized glass lenses for miniature inspection systems. , 2014, , .		3
61	Simple setup for optical characterization of microlenses. Proceedings of SPIE, 2014, , .	0.8	2
62	Vertical integration of array-type miniature interferometers at wafer level by using multistack anodic bonding. , 2016, , .		2
63	Vertical comb-drive microscanner with 4x4 array of micromirrors for phase-shifting Mirau microinterferometry. , 2016, , .		2
64	Wafer-level fabrication of arrays of glass lens doublets. , 2016, , .		2
65	The SS-OCT endomicroscopy probe based on MOEMS Mirau micro-interferometer for early stomach cancer detection. , 2018, , .		2
66	Measurement of the refractive index at cryogenic temperature of absorptive silver thin films used as reflectors in a Fabryâ€“Perot cavity. Applied Optics, 2021, 60, 10945.	1.8	2
67	Diffractive Optics for Mobile Solutions: Light Incoupling and Polarization Control with Light Guides. Japanese Journal of Applied Physics, 2008, 47, 6635-6641.	1.5	1
68	Micromachined array-type Mirau interferometer for MEMS metrology. , 2012, , .		1
69	Multi-wafer bonding technology for the integration of a micromachined Mirau interferometer. , 2015, , .		1
70	Technological platform for vertical multi-wafer integration of miniature imaging instruments. , 2015, , .		1
71	Performance analysis of a full-field and full-range swept-source OCT system. , 2015, , .		1
72	Some applications of binary Diffractive Optical Elements. Proceedings of SPIE, 2009, , .	0.8	0

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73	Generation of pure TEMp0 modes using a friendly intracavity laser beam shaping technique. , 2011, , .		0
74	Metrology of micro-optical components quality using direct measurement of 3D intensity point spread function. , 2014, , .		0
75	Mirau micro-interferometer for Swept-Source Optical Coherence Tomography endomicroscopy. , 2015, , .		0
76	Aberration retrieval for the characterization of micro-optical components. Proceedings of SPIE, 2016, , .	0.8	0
77	Array-type miniature interferometer as the core optical microsystem of an optical coherence tomography device for tissue inspection. , 2016, , .		0
78	A MEMS array-type Mirau interferometer for swept-source OCT imaging with applications in dermatology. , 2017, , .		0
79	Fabrication and Characterization of Micromachined Micro-Axicons Made by Micro Glass Blowing Process. , 2018, , .		0
80	MicrosystÃ¨mes et microcomposants pour lâ€™instrumentation optique sur puce. Photoniques, 2012, , 33-37.	0.1	0
81	Micro Glass Blowing platform for microfabrication of microoptical components. , 2018, , .		0
82	Advanced microfabrication technologies for miniature caesium vapor cells for atomic clocks. , 2019, , .		0