Carlo Liberale

List of Publications by Year in descending order

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Version: 2024-02-01

86 papers 4,326 citations

147566 31 h-index 59 g-index

89 all docs 89 docs citations

89 times ranked 6558 citing authors

#	Article	IF	CITATIONS
1	Breaking the diffusion limit with super-hydrophobic delivery of molecules to plasmonic nanofocusing SERS structures. Nature Photonics, 2011, 5, 682-687.	15.6	638
2	Nanoscale chemical mapping using three-dimensional adiabatic compression of surface plasmon polaritons. Nature Nanotechnology, 2010, 5, 67-72.	15.6	352
3	3D Nanostar Dimers with a Subâ€10â€nm Gap for Singleâ€Fewâ€Molecule Surfaceâ€Enhanced Raman Scatterir Advanced Materials, 2014, 26, 2353-2358.	ng. 11.1	263
4	Cells preferentially grow on rough substrates. Biomaterials, 2010, 31, 7205-7212.	5.7	240
5	Nano-patterned SERS substrate: Application for protein analysis vs. temperature. Biosensors and Bioelectronics, 2009, 24, 1693-1699.	5.3	220
6	Miniaturized all-fibre probe for three-dimensional optical trapping and manipulation. Nature Photonics, 2007, 1, 723-727.	15.6	218
7	Lipid Droplets: A New Player in Colorectal Cancer Stem Cells Unveiled by Spectroscopic Imaging. Stem Cells, 2015, 33, 35-44.	1.4	185
8	An Overview of Lipid Droplets in Cancer and Cancer Stem Cells. Stem Cells International, 2017, 2017, 1-17.	1.2	165
9	Integrated microfluidic device for single-cell trapping and spectroscopy. Scientific Reports, 2013, 3, 1258.	1.6	127
10	Molding of Plasmonic Resonances in Metallic Nanostructures: Dependence of the Non-Linear Electric Permittivity on System Size and Temperature. Materials, 2013, 6, 4879-4910.	1.3	123
11	Silver-based surface enhanced Raman scattering (SERS) substrate fabrication using nanolithography and site selective electroless deposition. Microelectronic Engineering, 2009, 86, 1085-1088.	1.1	102
12	Micro-Optics Fabrication on Top of Optical Fibers Using Two-Photon Lithography. IEEE Photonics Technology Letters, 2010, 22, 474-476.	1.3	102
13	FTâ€IR, Raman, RRS measurements and DFT calculation for doxorubicin. Microscopy Research and Technique, 2010, 73, 991-995.	1.2	95
14	Superhydrophobic Surfaces as Smart Platforms for the Analysis of Diluted Biological Solutions. ACS Applied Materials & Diluterfaces, 2012, 4, 3213-3224.	4.0	95
15	Far-field spectral characterization of conical emission and filamentation in Kerr media. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 862.	0.9	92
16	Squeezing Terahertz Light into Nanovolumes: Nanoantenna Enhanced Terahertz Spectroscopy (NETS) of Semiconductor Quantum Dots. Nano Letters, 2015, 15, 386-391.	4.5	86
17	3D printed waveguides based on photonic crystal fiber designs for complex fiber-end photonic devices. Optica, 2020, 7, 1487.	4.8	80
18	Emerging fabrication techniques for 3D nano-structuring in plasmonics and single molecule studies. Nanoscale, 2011, 3, 2689.	2.8	79

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19	Roadmap for optofluidics. Journal of Optics (United Kingdom), 2017, 19, 093003.	1.0	78
20	Water soluble nanoporous nanoparticle for in vivo targeted drug delivery and controlled release in B cells tumor context. Nanoscale, 2010, 2, 2230.	2.8	65
21	Dark to Bright Mode Conversion on Dipolar Nanoantennas: A Symmetry-Breaking Approach. ACS Photonics, 2014, 1, 310-314.	3.2	64
22	Differential Cell Adhesion on Mesoporous Silicon Substrates. ACS Applied Materials & Samp; Interfaces, 2012, 4, 2903-2911.	4.0	63
23	Extremely large extinction efficiency and field enhancement in terahertz resonant dipole nanoantennas. Optics Express, 2011, 19, 26088.	1.7	60
24	Surface plasmon polariton compression through radially and linearly polarized source. Optics Letters, 2012, 37, 545.	1.7	51
25	Nanoparticle microinjection and Raman spectroscopy as tools for nanotoxicology studies. Analyst, The, 2011, 136, 4402.	1.7	47
26	Multi-scheme approach for efficient surface plasmon polariton generation in metallic conical tips on AFM-based cantilevers. Optics Express, 2011, 19, 22268.	1.7	42
27	Fully analytical description of adiabatic compression in dissipative polaritonic structures. Physical Review B, 2012, 86, .	1.1	38
28	Stimulated Raman microspectroscopy as a new method to classify microfibers from environmental samples. Environmental Pollution, 2020, 267, 115640.	3.7	36
29	Terahertz Dipole Nanoantenna Arrays: Resonance Characteristics. Plasmonics, 2013, 8, 133-138.	1.8	35
30	Scanless functional imaging of hippocampal networks using patterned two-photon illumination through GRIN lenses. Biomedical Optics Express, 2016, 7, 3958.	1.5	35
31	Biocompatible 3D printed magnetic micro needles. Biomedical Physics and Engineering Express, 2017, 3, 025005.	0.6	35
32	Reflection-mode TERS on Insulin Amyloid Fibrils with Top-Visual AFM Probes. Plasmonics, 2013, 8, 25-33.	1.8	30
33	Extended field-of-view ultrathin microendoscopes for high-resolution two-photon imaging with minimal invasiveness. ELife, 2020, 9, .	2.8	30
34	Microfluidic Devices Modulate Tumor Cell Line Susceptibility to NK Cell Recognition. Small, 2012, 8, 2886-2894.	5.2	29
35	ROS and Lipid Droplet accumulation induced by high glucose exposure in healthy colon and Colorectal Cancer Stem Cells. Genes and Diseases, 2020, 7, 620-635.	1.5	26
36	Near-Infrared OAM Communication Using 3D-Printed Microscale Spiral Phase Plates. IEEE Communications Magazine, 2019, 57, 65-69.	4.9	25

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37	Design and optimization of a reflection-based fiber-optic tweezers. Optics Express, 2008, 16, 17647.	1.7	22
38	3D-printed fiber-based zeroth- and high-order Bessel beam generator. Optica, 2022, 9, 645.	4.8	22
39	Fingerprintâ€toâ€CH stretch continuously tunable high spectral resolution stimulated Raman scattering microscope. Journal of Biophotonics, 2019, 12, e201900028.	1.1	21
40	A Novel Approach to Fiber-Optic Tweezers: Numerical Analysis of the Trapping Efficiency. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 151-157.	1.9	20
41	Interplay between electric and magnetic effect in adiabatic polaritonic systems. Optics Express, 2013, 21, 7538.	1.7	19
42	Direct determination of the resonance properties of metallic conical nanoantennas. Optics Letters, 2014, 39, 571.	1.7	15
43	Nonlinear characterization and modeling of periodically poled lithium niobate waveguides for 1.5 - $\hat{1}\frac{1}{4}$ m-band cascaded wavelength conversion. Optics Communications, 2001, 187, 263-270.	1.0	14
44	Highly efficient human serum filtration with water-soluble nanoporous nanoparticles. International Journal of Nanomedicine, 2010, Volume 5, 1005-1015.	3.3	13
45	Polarization Micro-Optics: Circular Polarization From a Fresnel Rhomb 3D Printed on an Optical Fiber. IEEE Photonics Technology Letters, 2018, 30, 1882-1885.	1.3	13
46	Miniature 120-beam coherent combiner with 3D-printed optics for multicore fiber-based endoscopy. Optics Letters, 2021, 46, 4968.	1.7	13
47	Photo-responsive suspended micro-membranes. Journal of Materials Chemistry C, 2018, 6, 10428-10434.	2.7	12
48	Broadband stimulated Raman imaging based on multi-channel lock-in detection for spectral histopathology. APL Photonics, 2022, 7, .	3.0	12
49	Hadamard-transform spectral acquisition with an acousto-optic tunable filter in a broadband stimulated Raman scattering microscope. Optics Express, 2021, 29, 2378.	1.7	11
50	Suitable photo-resists for two-photon polymerization using femtosecond fiber lasers. Microelectronic Engineering, 2014, 121, 135-138.	1.1	10
51	Fabrication of Diffractive Optical Elements On-Fiber for Photonic Applications by Nanolitography. Japanese Journal of Applied Physics, 2003, 42, 4177-4180.	0.8	9
52	<scp>3D</scp> â€Printed <scp>highâ€NA</scp> catadioptric thin lens for suppression of <scp>XPM</scp> background in Stimulated Raman Scattering microscopy. Journal of Biophotonics, 2021, 14, e202000219.	1.1	9
53	Optical force decoration of 3D microstructures with plasmonic particles. Optics Letters, 2018, 43, 5170.	1.7	8
54	Mechanical Stress Downregulates MHC Class I Expression on Human Cancer Cell Membrane. PLoS ONE, 2014, 9, e111758.	1.1	6

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55	Measurement of the nonlinear phase shift induced by cascaded interactions in a periodically poled lithium niobate waveguide. Optics Letters, 2005, 30, 2448.	1.7	5
56	Towards an Electro-optical Emulation of the C. elegans Connectome. , 2014, , .		4
57	Numerical study of cascaded wavelength conversion in quadratic media. Journal of Optics, 2002, 4, 457-462.	1.5	3
58	Cross-phase modulation due to a cascade of quadratic interactions in a PPLN waveguide. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 405-411.	1.9	3
59	Comparison of Electro-Optical Strategies for Mimicking C. elegans Network Interconnectivity in Hardware. Biosystems and Biorobotics, 2016, , 79-98.	0.2	2
60	3D printed Polarization Micro-Optics: Fresnel Rhomb printed on an optical fiber. , 2018, , .		2
61	Optical micromanipulation of microscopic particles using axicon tipped fiber. , 2006, , .		1
62	All Optical 3-D Trapping through a Single-Fiber Tweezer. , 2007, , .		1
63	Metal Structures as Advanced Materials in Nanotechnology. , 2014, , 615-669.		1
64	Producing OAM Information Carriers using Micro-structured Spiral Phase Plates., 2019,,.		1
65	Nanoparticles and Nanostructures for Biophotonic Applications. , 0, , .		1
66	Miniaturized Optical Tweezers Through Fiber-End Microfabrication. Springer Series in Surface Sciences, 2015, , 159-180.	0.3	1
67	High-throughput fabrication of right-angle prism mirrors with selective metalization by two-step 3D printing and computer vision alignment. , 2020, , .		1
68	Measurement of the nonlinear coefficient of optical fibers by femtosecond pulses and spectral interferometry. IEEE Photonics Technology Letters, 2003, 15, 1123-1125.	1.3	0
69	Fiber optic trapping of low-refractive-index particles. , 2006, , .		0
70	Numerical and experimental demonstration of a single-fiber probe for optical trapping and analysis. , 2008, , .		0
71	Nanoantenna Enhanced Terahertz Spectroscopy of a Monolayer of Cadmium Selenide Quantum Dots., 2014,,.		0
72	High numerical aperture imaging by using multimode fibers with micro-fabricated optics. , 2014, , .		0

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73	On-fiber 3D printing of photonic crystal fiber tapers for mode field diameter conversion. , 2017, , .		О
74	3D printing of microlenses for aberration correction in GRIN microendoscopes. , 2017, , .		0
75	3D printed photonic structure for generation to zeroth- and high-order Bessel beams from a single-mode optical fiber. , 2021, , .		O
76	Hadamard-transform high spectral resolution and broadband stimulated Raman Scattering microspectroscopy using an acousto-optic tunable filter. , 2021, , .		0
77	Fabrication of Microstructured Optical Fiber (MOF) segments by two-photon lithography 3D printing. , 2021, , .		0
78	3D micro-printed hybrid photonic structure for single-fiber Optical Tweezers. , 2021, , .		0
79	Terahertz Resonant Dipole Nanoantennas., 2012,,.		О
80	Coil-type Fano Resonances: a Plasmonic Approach to Magnetic Sub-diffraction Confinement., 2015,,.		0
81	Nanostructures for Photonics. , 2016, , 2827-2843.		O
82	Extended field-of-view microendoscopy through aberration corrected GRIN lenses. , 2019, , .		0
83	Extended Field-of-View Deep Brain Imaging using Aberration Correction in GRIN Microendoscopes through 3D Printed Polymer Microlenses. , 2020, , .		O
84	3D micro-printed ultra-compact single-fiber Optical tweezers. , 2021, , .		0
85	Field-driven electron photoemission via 3D-printed terahertz resonant vertical nanostructures., 2021,		0
86	3D Printed Polymer Microlenses for Aberration Correction in Two-Photon Microscopic Imaging Using > 8 mm-Long GRIN Lenses., 2022,,.		0