

Sabina Merlo

List of Publications by Year in descending order

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104
papers

1,563
citations

361045

20
h-index

344852

36
g-index

107
all docs

107
docs citations

107
times ranked

970
citing authors

#	ARTICLE	IF	CITATIONS
1	Multiwavelength Fluidic Sensing of Water-Based Solutions in a Channel Microslide With SWIR LEDs. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	2.4	4
2	Spectral Fingerprint Investigation in the near Infra-Red to Distinguish Harmful Ethylene Glycol from Isopropanol in a Microchannel. Sensors, 2022, 22, 459.	2.1	0
3	Modal analysis of piezoelectrically actuated plates with built-in stress by computationally augmented interferometric experiments. Sensors and Actuators A: Physical, 2022, 337, 113444.	2.0	0
4	Refractive Index Sensing in Microfluidic Channels With Integrated Reflectors by Measuring Light Spot Displacement. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-8.	2.4	0
5	Quality Control of Ethanol-Based Hand Sanitizer Gels in Micro-Opto-Fluidic Devices. , 2021, , .		3
6	Spectral Interferometric Detection of NIR Optical Resonances of Rectangular Microcapillaries for Refractive Index Sensing. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	2.4	2
7	Micro-opto-fluidic platform for spectroscopic identification of water-based fluids. , 2021, , .		3
8	Near Infrared Absorption Spectroscopy in Microfluidic Devices With Selectable Pathlength. Journal of Lightwave Technology, 2021, 39, 4193-4200.	2.7	4
9	Micro-opto-fluidic platform for solvents identification based on absorption properties in the NIR region. Analytical and Bioanalytical Chemistry, 2020, 412, 3351-3358.	1.9	1
10	Phase detection of the NIR optical resonances of rectangular glass micro-capillaries. , 2020, , .		4
11	Spectral Phase Shift Interferometry for Refractive Index Monitoring in Micro-Capillaries. Sensors, 2020, 20, 1043.	2.1	8
12	Ternary Lead Chalcogenide Alloys for Mid-Infrared Detectors. Journal of Electronic Materials, 2020, 49, 4577-4580.	1.0	4
13	Experimental Detection of Piezo-Tunable Micro-Lens Performances by Spot Optical Measurements. , 2019, , .		2
14	A VCSEL-Based NIR Transillumination System for Morpho-Functional Imaging. Sensors, 2019, 19, 851.	2.1	9
15	Near-Infrared Transillumination of in Vivo Biological Tissues for Functional Imaging. , 2019, , .		0
16	In Vivo Recognition of Vascular Structures by Near-Infrared Transillumination. Proceedings (mdpi), 2019, 42, .	0.2	1
17	NIR transillumination system for in vivo functional imaging. , 2019, , .		2
18	Characterization of Tunable Micro-Lenses with a Versatile Optical Measuring System. Sensors, 2018, 18, 4396.	2.1	5

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19	Near-Infrared Silicon Photonic Crystals with High-Order Photonic Bandgaps for High-Sensitivity Chemical Analysis of Water-Ethanol Mixtures. ACS Sensors, 2018, 3, 2223-2231.	4.0	23
20	Spectral Optical Readout of Rectangular-Miniature Hollow Glass Tubing for Refractive Index Sensing. Sensors, 2018, 18, 603.	2.1	7
21	High-resolution optical rangefinder based on 2 GHz telecom transceiver. , 2017, , .		0
22	Runways ground monitoring system by phase-sensitive optical-fiber OTDR. , 2017, , .		15
23	Infrared structured light generation by optical MEMS and application to depth perception. , 2017, , .		6
24	A novel microfluidic sensing platform based on miniature rectangular glass capillaries and optical readout. , 2017, , .		0
25	Flow-through micro-capillary refractive index sensor based on T/R spectral shift monitoring. Biomedical Optics Express, 2017, 8, 4438.	1.5	11
26	Testing of Piezo-Actuated Glass Micro-Membranes by Optical Low-Coherence Reflectometry. Sensors, 2017, 17, 462.	2.1	4
27	Low-Coherence Reflectometry for Refractive Index Measurements of Cells in Micro-Capillaries. Sensors, 2016, 16, 1670.	2.1	11
28	An Innovative Cell Microincubator for Drug Discovery Based on 3D Silicon Structures. Journal of Nanomaterials, 2016, 2016, 1-10.	1.5	2
29	A Silicon Microsystem for Generation of Infrared Patterned Light. Journal of Display Technology, 2016, 12, 907-911.	1.3	2
30	Refractive Index Sensing in Rectangular Glass Micro-Capillaries by Spectral Reflectivity Measurements. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 383-391.	1.9	17
31	Non-contact reflectometric readout of disposable microfluidic devices by near infra-red low-coherence interferometry. AIMS Biophysics, 2016, 3, 585-595.	0.3	1
32	Rectangular glass micro-capillaries for biophotonic applications. , 2015, , .		1
33	Generation of structured illumination with resonant MEMS. , 2015, , .		2
34	Silicon Micromachined Device Testing by Infrared Low-Coherence Reflectometry. Journal of Microelectromechanical Systems, 2015, 24, 1960-1964.	1.7	16
35	Characterization of Rectangular Glass Microcapillaries by Low-Coherence Reflectometry. IEEE Photonics Technology Letters, 2015, 27, 1064-1067.	1.3	14
36	Optical Detection of the Electromechanical Response of MEMS Micromirrors Designed for Scanning Picoprojectors. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 147-156.	1.9	31

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37	3D Silicon Microstructures: A New Tool for Evaluating Biological Aggressiveness of Tumor Cells. IEEE Transactions on Nanobioscience, 2015, 14, 797-805.	2.2	13
38	Capillarity-driven (self-powered) one-dimensional photonic crystals for refractometry and (bio)sensing applications. RSC Advances, 2014, 4, 51935-51941.	1.7	33
39	Reconstruction of cell distribution in 3D silicon microstructures by label-free optical detection. , 2014, , .		0
40	Photoplethysmography and electrocardiography for real time evaluation of pulse transit time A diagnostic marker of peripheral vascular diseases. , 2014, , .		2
41	Capillary optofluidics by high-aspect-ratio photonic crystals. , 2014, , .		0
42	Label-free optical detection of cells grown in 3D silicon microstructures. Lab on A Chip, 2013, 13, 3284.	3.1	9
43	Isolation of α -islets by dielectrophoresis. Electrophoresis, 2013, 34, 1068-1075.	1.3	13
44	An all-silicon optical platform based on linear array of vertical high-aspect-ratio silicon/air photonic crystals. Applied Physics Letters, 2013, 103, .	1.5	18
45	Investigation of Cell Culturing on High-Aspect-Ratio, Three-Dimensional Silicon Microstructures. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1215-1222.	1.9	8
46	Optofluidic microsystems with integrated vertical one-dimensional photonic crystals for chemical analysis. Lab on A Chip, 2012, 12, 4403.	3.1	61
47	A New Cell-Selective Three-Dimensional Microincubator Based on Silicon Photonic Crystals. PLoS ONE, 2012, 7, e48556.	1.1	10
48	Fibrillogenesis of human α -microglobulin in three-dimensional silicon microstructures. Journal of Biophotonics, 2012, 5, 785-792.	1.1	8
49	Integrated optofluidic microsystem based on vertical high-order one-dimensional silicon photonic crystals. Microfluidics and Nanofluidics, 2012, 12, 545-552.	1.0	35
50	High-Order One-Dimensional Silicon Photonic Crystals with a Reflectivity Notch at $\lambda = 1.55 \mu\text{m}$. Lecture Notes in Electrical Engineering, 2012, , 231-234.	0.3	0
51	Fluorescence detection of fibrillar proteins on silicon microstructures. , 2011, , .		0
52	Silicon micromachined photonic crystal integrated in an opto-fluidic microsystem. , 2011, , .		1
53	Alcohol-Infiltrated One-Dimensional Photonic Crystals. Lecture Notes in Electrical Engineering, 2011, , 33-37.	0.3	0
54	Close-loop three-laser scheme for chaos-encrypted message transmission. Optical and Quantum Electronics, 2010, 42, 143-156.	1.5	10

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55	Private Message Transmission by Common Driving of Two Chaotic Lasers. IEEE Journal of Quantum Electronics, 2010, 46, 258-264.	1.0	42
56	A modular micro-fluidic platform for cells handling by dielectrophoresis. Microelectronic Engineering, 2010, 87, 2124-2133.	1.1	43
57	Optical Quality-Assessment of High-Order One-Dimensional Silicon Photonic Crystals With a Reflectivity Notch at $\lambda \approx 1.55 \mu\text{m}$. IEEE Photonics Journal, 2010, 2, 981-990.	1.0	12
58	Advances in Silicon Periodic Microstructures with Photonic Band Gaps in the Near Infrared Region. Lecture Notes in Electrical Engineering, 2010, , 43-46.	0.3	0
59	Optical Characterization of High-Order 1-D Silicon Photonic Crystals. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 1359-1367.	1.9	42
60	Secure transmission with chaotic lasers synchronized by electrical injection. , 2009, , .		0
61	Optical characterization of alcohol-infiltrated one-dimensional silicon photonic crystals. Optics Letters, 2009, 34, 1912.	1.7	13
62	Chaos Encrypted Optical Communication System. Fiber and Integrated Optics, 2008, 27, 308-316.	1.7	1
63	Bandgap Tuning of Silicon Micromachined 1-D Photonic Crystals by Thermal Oxidation. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 1074-1081.	1.9	25
64	A Chaos-Based Approach to Secure Communications. Optics and Photonics News, 2008, 19, 36.	0.4	6
65	Secure Chaotic Transmission on a Free-Space Optics Data Link. IEEE Journal of Quantum Electronics, 2008, 44, 1089-1095.	1.0	47
66	Transmission of a chaos-masked signal with in-line all-optical wavelength conversion. , 2008, , .		0
67	Optical cryptography by phase modulation of a chaotic carrier. , 2007, , .		0
68	Reflection properties of hybrid quarter-wavelength silicon microstructures. Applied Physics Letters, 2007, 90, 121110.	1.5	15
69	Message Encryption by Phase Modulation of a Chaotic Optical Carrier. IEEE Photonics Technology Letters, 2007, 19, 76-78.	1.3	36
70	All-Optical Wavelength Conversion of a Chaos Masked Signal. IEEE Photonics Technology Letters, 2007, 19, 1783-1785.	1.3	17
71	Testing of "Venetian-Blind" Silicon Microstructures With Optical Methods. Journal of Microelectromechanical Systems, 2006, 15, 588-596.	1.7	7
72	Silicon micromachined periodic structures for optical applications at $\lambda = 1.55 \mu\text{m}$. Applied Physics Letters, 2006, 89, 151110.	1.5	31

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73	Optical chaos masking of video signals. IEEE Photonics Technology Letters, 2005, 17, 1995-1997.	1.3	43
74	A fiber optics setup for experiments on chaos synchronization and chaotic cryptography. , 2004, 5349, 290.		0
75	Spot Optical Measurements on Micromachined Mirrors for Photonic Switching. IEEE Journal of Selected Topics in Quantum Electronics, 2004, 10, 536-544.	1.9	13
76	Fiberoptics setup for chaotic cryptographic communications. Comptes Rendus Physique, 2004, 5, 623-631.	0.3	14
77	Optical Detection of Multiple Modes on Resonant Micromachined Structures. IEEE Photonics Technology Letters, 2004, 16, 1703-1705.	1.3	4
78	Optical characterization of micro-electro-mechanical structures. , 2004, , .		0
79	Optical detection of the coriolis force on a silicon micromachined gyroscope. Journal of Microelectromechanical Systems, 2003, 12, 540-549.	1.7	23
80	Characterization of silicon microstructures by feedback interferometry. Journal of Optics, 2002, 4, S311-S317.	1.5	14
81	<title>Characterization of MEMS by feedback interferometry</title>. , 2002, 4755, 420.		0
82	Characterization of a chaotic telecommunication laser for different fiber cavity lengths. IEEE Journal of Quantum Electronics, 2002, 38, 1171-1177.	1.0	20
83	Measurements on a micromachined silicon gyroscope by feedback interferometry. IEEE/ASME Transactions on Mechatronics, 2001, 6, 1-6.	3.7	21
84	Comparison of capacitive and feedback-interferometric measurements on MEMS. Journal of Microelectromechanical Systems, 2001, 10, 327-335.	1.7	19
85	Vibration Monitoring with Fiber Optic Sensor. , 2000, , 44.		1
86	Power efficiency of a semiconductor laser with an external cavity. Optical and Quantum Electronics, 2000, 32, 1343-1350.	1.5	9
87	Mechanical thermal noise in micromachined gyros. Microelectronics Journal, 1999, 30, 1227-1230.	1.1	39
88	Metal-Film Fiber Attenuators with Flat Spectral Response. Optical Fiber Technology, 1999, 5, 331-337.	1.4	4
89	A semiclassical model for noise propagation in depleted-pump optical amplifiers. IEEE Journal of Quantum Electronics, 1998, 34, 1823-1829.	1.0	5
90	Fast characterization of metal films for fiber attenuators. Applied Optics, 1998, 37, 5298.	2.1	3

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91	Applications of diode laser feedback interferometry. Journal of Optics, 1998, 29, 156-161.	0.3	22
92	Statistical analysis of fiber failures under bending-stress fatigue. Journal of Lightwave Technology, 1997, 15, 288-293.	2.7	12
93	Reconstruction of displacement waveforms with a single-channel laser-diode feedback interferometer. IEEE Journal of Quantum Electronics, 1997, 33, 527-531.	1.0	96
94	Protecting a power-laser diode from retroreflections by means of a fiber $\lambda/4$ retarder. IEEE Photonics Technology Letters, 1996, 8, 485-487.	1.3	2
95	<title>Feedback interferometry with semiconductor laser for high-resolution displacement sensing</title>. , 1996, , .		3
96	A PC-interfaced, compact laser-diode feedback interferometer for displacement measurements. IEEE Transactions on Instrumentation and Measurement, 1996, 45, 942-947.	2.4	75
97	Thermodynamic phase noise in fibre interferometers. Optical and Quantum Electronics, 1996, 28, 43-49.	1.5	9
98	All-fiber Faraday rotator made by a multiturn figure-of-eight coil with matched birefringence. Journal of Lightwave Technology, 1995, 13, 2349-2353.	2.7	10
99	Laser diode feedback interferometer for measurement of displacements without ambiguity. IEEE Journal of Quantum Electronics, 1995, 31, 113-119.	1.0	287
100	Coiled-fiber sensor for vectorial measurement of magnetic field. Journal of Lightwave Technology, 1992, 10, 2006-2010.	2.7	11
101	Squeezed states in direct and coherent detection. Optical and Quantum Electronics, 1992, 24, 285-301.	1.5	7
102	Development of a Fiber Optic Sensor for Detection of General Anesthetics and Other Small Organic Molecules. , 1991, , 155-169.		0
103	An optical method for detecting anesthetics and other lipid-soluble compounds. Sensors and Actuators A: Physical, 1990, 23, 1150-1154.	2.0	7
104	Optical method for monitoring the concentration of general anesthetics and other small organic molecules. An example of phase transition sensing. Analytical Chemistry, 1990, 62, 2728-2735.	3.2	17