

Sabina Merlo

List of Publications by Year in descending order

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104
papers

1,563
citations

361413

20
h-index

345221

36
g-index

107
all docs

107
docs citations

107
times ranked

970
citing authors

#	ARTICLE	IF	CITATIONS
1	Laser diode feedback interferometer for measurement of displacements without ambiguity. IEEE Journal of Quantum Electronics, 1995, 31, 113-119.	1.9	287
2	Reconstruction of displacement waveforms with a single-channel laser-diode feedback interferometer. IEEE Journal of Quantum Electronics, 1997, 33, 527-531.	1.9	96
3	A PC-interfaced, compact laser-diode feedback interferometer for displacement measurements. IEEE Transactions on Instrumentation and Measurement, 1996, 45, 942-947.	4.7	75
4	Optofluidic microsystems with integrated vertical one-dimensional photonic crystals for chemical analysis. Lab on A Chip, 2012, 12, 4403.	6.0	61
5	Secure Chaotic Transmission on a Free-Space Optics Data Link. IEEE Journal of Quantum Electronics, 2008, 44, 1089-1095.	1.9	47
6	Optical chaos masking of video signals. IEEE Photonics Technology Letters, 2005, 17, 1995-1997.	2.5	43
7	A modular micro-fluidic platform for cells handling by dielectrophoresis. Microelectronic Engineering, 2010, 87, 2124-2133.	2.4	43
8	Optical Characterization of High-Order 1-D Silicon Photonic Crystals. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 1359-1367.	2.9	42
9	Private Message Transmission by Common Driving of Two Chaotic Lasers. IEEE Journal of Quantum Electronics, 2010, 46, 258-264.	1.9	42
10	Mechanical thermal noise in micromachined gyros. Microelectronics Journal, 1999, 30, 1227-1230.	2.0	39
11	Message Encryption by Phase Modulation of a Chaotic Optical Carrier. IEEE Photonics Technology Letters, 2007, 19, 76-78.	2.5	36
12	Integrated optofluidic microsystem based on vertical high-order one-dimensional silicon photonic crystals. Microfluidics and Nanofluidics, 2012, 12, 545-552.	2.2	35
13	Capillarity-driven (self-powered) one-dimensional photonic crystals for refractometry and (bio)sensing applications. RSC Advances, 2014, 4, 51935-51941.	3.6	33
14	Silicon micromachined periodic structures for optical applications at $\lambda = 1.55 \mu\text{m}$. Applied Physics Letters, 2006, 89, 151110.	3.3	31
15	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.	2.9	31
16	Bandgap Tuning of Silicon Micromachined 1-D Photonic Crystals by Thermal Oxidation. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 1074-1081.	2.9	25
17	Optical detection of the coriolis force on a silicon micromachined gyroscope. Journal of Microelectromechanical Systems, 2003, 12, 540-549.	2.5	23
18	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.	7.8	23

#	ARTICLE	IF	CITATIONS
19	Applications of diode laser feedback interferometry. Journal of Optics, 1998, 29, 156-161.	0.3	22
20	Measurements on a micromachined silicon gyroscope by feedback interferometry. IEEE/ASME Transactions on Mechatronics, 2001, 6, 1-6.	5.8	21
21	Characterization of a chaotic telecommunication laser for different fiber cavity lengths. IEEE Journal of Quantum Electronics, 2002, 38, 1171-1177.	1.9	20
22	Comparison of capacitive and feedback-interferometric measurements on MEMS. Journal of Microelectromechanical Systems, 2001, 10, 327-335.	2.5	19
23	An all-silicon optical platform based on linear array of vertical high-aspect-ratio silicon/air photonic crystals. Applied Physics Letters, 2013, 103, .	3.3	18
24	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.	6.5	17
25	All-Optical Wavelength Conversion of a Chaos Masked Signal. IEEE Photonics Technology Letters, 2007, 19, 1783-1785.	2.5	17
26	Refractive Index Sensing in Rectangular Glass Micro-Capillaries by Spectral Reflectivity Measurements. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 383-391.	2.9	17
27	Silicon Micromachined Device Testing by Infrared Low-Coherence Reflectometry. Journal of Microelectromechanical Systems, 2015, 24, 1960-1964.	2.5	16
28	Reflection properties of hybrid quarter-wavelength silicon microstructures. Applied Physics Letters, 2007, 90, 121110.	3.3	15
29	Runways ground monitoring system by phase-sensitive optical-fiber OTDR. , 2017, , .		15
30	Characterization of silicon microstructures by feedback interferometry. Journal of Optics, 2002, 4, S311-S317.	1.5	14
31	Fiberoptics setup for chaotic cryptographic communications. Comptes Rendus Physique, 2004, 5, 623-631.	0.9	14
32	Characterization of Rectangular Glass Microcapillaries by Low-Coherence Reflectometry. IEEE Photonics Technology Letters, 2015, 27, 1064-1067.	2.5	14
33	Spot Optical Measurements on Micromachined Mirrors for Photonic Switching. IEEE Journal of Selected Topics in Quantum Electronics, 2004, 10, 536-544.	2.9	13
34	Optical characterization of alcohol-infiltrated one-dimensional silicon photonic crystals. Optics Letters, 2009, 34, 1912.	3.3	13
35	Isolation of <sc>L</sc>angerhans islets by dielectrophoresis. Electrophoresis, 2013, 34, 1068-1075.	2.4	13
36	3D Silicon Microstructures: A New Tool for Evaluating Biological Aggressiveness of Tumor Cells. IEEE Transactions on Nanobioscience, 2015, 14, 797-805.	3.3	13

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37	Statistical analysis of fiber failures under bending-stress fatigue. Journal of Lightwave Technology, 1997, 15, 288-293.	4.6	12
38	Optical Quality-Assessment of High-Order One-Dimensional Silicon Photonic Crystals With a Reflectivity Notch at $\lambda \sim 1.55 \mu\text{m}$. IEEE Photonics Journal, 2010, 2, 981-990.	2.0	12
39	Coiled-fiber sensor for vectorial measurement of magnetic field. Journal of Lightwave Technology, 1992, 10, 2006-2010.	4.6	11
40	Low-Coherence Reflectometry for Refractive Index Measurements of Cells in Micro-Capillaries. Sensors, 2016, 16, 1670.	3.8	11
41	Flow-through micro-capillary refractive index sensor based on T/R spectral shift monitoring. Biomedical Optics Express, 2017, 8, 4438.	2.9	11
42	All-fiber Faraday rotator made by a multiturn figure-of-eight coil with matched birefringence. Journal of Lightwave Technology, 1995, 13, 2349-2353.	4.6	10
43	Close-loop three-laser scheme for chaos-encrypted message transmission. Optical and Quantum Electronics, 2010, 42, 143-156.	3.3	10
44	A New Cell-Selective Three-Dimensional Microincubator Based on Silicon Photonic Crystals. PLoS ONE, 2012, 7, e48556.	2.5	10
45	Thermodynamic phase noise in fibre interferometers. Optical and Quantum Electronics, 1996, 28, 43-49.	3.3	9
46	Power efficiency of a semiconductor laser with an external cavity. Optical and Quantum Electronics, 2000, 32, 1343-1350.	3.3	9
47	Label-free optical detection of cells grown in 3D silicon microstructures. Lab on A Chip, 2013, 13, 3284.	6.0	9
48	A VCSEL-Based NIR Transillumination System for Morpho-Functional Imaging. Sensors, 2019, 19, 851.	3.8	9
49	Investigation of Cell Culturing on High-Aspect-Ratio, Three-Dimensional Silicon Microstructures. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1215-1222.	2.9	8
50	Fibrillogenesis of human α_2 -microglobulin in three-dimensional silicon microstructures. Journal of Biophotonics, 2012, 5, 785-792.	2.3	8
51	Spectral Phase Shift Interferometry for Refractive Index Monitoring in Micro-Capillaries. Sensors, 2020, 20, 1043.	3.8	8
52	An optical method for detecting anesthetics and other lipid-soluble compounds. Sensors and Actuators A: Physical, 1990, 23, 1150-1154.	4.1	7
53	Squeezed states in direct and coherent detection. Optical and Quantum Electronics, 1992, 24, 285-301.	3.3	7
54	Testing of α -Venetian-Blind-Silicon Microstructures With Optical Methods. Journal of Microelectromechanical Systems, 2006, 15, 588-596.	2.5	7

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55	Spectral Optical Readout of Rectangularâ€“Miniature Hollow Glass Tubing for Refractive Index Sensing. <i>Sensors</i> , 2018, 18, 603.	3.8	7
56	A Chaos-Based Approach to Secure Communications. <i>Optics and Photonics News</i> , 2008, 19, 36.	0.5	6
57	Infrared structured light generation by optical MEMS and application to depth perception. , 2017, , .		6
58	A semiclassical model for noise propagation in depleted-pump optical amplifiers. <i>IEEE Journal of Quantum Electronics</i> , 1998, 34, 1823-1829.	1.9	5
59	Characterization of Tunable Micro-Lenses with a Versatile Optical Measuring System. <i>Sensors</i> , 2018, 18, 4396.	3.8	5
60	Metal-Film Fiber Attenuators with Flat Spectral Response. <i>Optical Fiber Technology</i> , 1999, 5, 331-337.	2.7	4
61	Optical Detection of Multiple Modes on Resonant Micromachined Structures. <i>IEEE Photonics Technology Letters</i> , 2004, 16, 1703-1705.	2.5	4
62	Testing of Piezo-Actuated Glass Micro-Membranes by Optical Low-Coherence Reflectometry. <i>Sensors</i> , 2017, 17, 462.	3.8	4
63	Phase detection of the NIR optical resonances of rectangular glass micro-capillaries. , 2020, , .		4
64	Ternary Lead Chalcogenide Alloys for Mid-Infrared Detectors. <i>Journal of Electronic Materials</i> , 2020, 49, 4577-4580.	2.2	4
65	Near Infrared Absorption Spectroscopy in Microfluidic Devices With Selectable Pathlength. <i>Journal of Lightwave Technology</i> , 2021, 39, 4193-4200.	4.6	4
66	Multiwavelength Fluidic Sensing of Water-Based Solutions in a Channel Microslide With SWIR LEDs. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022, 71, 1-10.	4.7	4
67	<title>Feedback interferometry with semiconductor laser for high-resolution displacement sensing</title>. , 1996, , .		3
68	Fast characterization of metal films for fiber attenuators. <i>Applied Optics</i> , 1998, 37, 5298.	2.1	3
69	Quality Control of Ethanol-Based Hand Sanitizer Gels in Micro-Opto-Fluidic Devices. , 2021, , .		3
70	Micro-opto-fluidic platform for spectroscopic identification of water-based fluids. , 2021, , .		3
71	Protecting a power-laser diode from retroreflections by means of a fiber $\lambda/4$ retarder. <i>IEEE Photonics Technology Letters</i> , 1996, 8, 485-487.	2.5	2
72	Photoplethysmography and electrocardiography for real time evaluation of pulse transit time A diagnostic marker of peripheral vascular diseases. , 2014, , .		2

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73	Generation of structured illumination with resonant MEMS. , 2015, , .		2
74	An Innovative Cell Microincubator for Drug Discovery Based on 3D Silicon Structures. Journal of Nanomaterials, 2016, 2016, 1-10.	2.7	2
75	A Silicon Microsystem for Generation of Infrared Patterned Light. Journal of Display Technology, 2016, 12, 907-911.	1.2	2
76	Experimental Detection of Piezo-Tunable Micro-Lens Performances by Spot Optical Measurements. , 2019, , .		2
77	Spectral Interferometric Detection of NIR Optical Resonances of Rectangular Microcapillaries for Refractive Index Sensing. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	4.7	2
78	NIR transillumination system for in vivo functional imaging. , 2019, , .		2
79	Vibration Monitoring with Fiber Optic Sensor. , 2000, , 44.		1
80	Chaos Encrypted Optical Communication System. Fiber and Integrated Optics, 2008, 27, 308-316.	2.5	1
81	Silicon micromachined photonic crystal integrated in an opto-fluidic microsystem. , 2011, , .		1
82	Rectangular glass micro-capillaries for biophotonic applications. , 2015, , .		1
83	Micro-opto-fluidic platform for solvents identification based on absorption properties in the NIR region. Analytical and Bioanalytical Chemistry, 2020, 412, 3351-3358.	3.7	1
84	In Vivo Recognition of Vascular Structures by Near-Infrared Transillumination. Proceedings (mdpi), 2019, 42, .	0.2	1
85	Non-contact reflectometric readout of disposable microfluidic devices by near infra-red low-coherence interferometry. AIMS Biophysics, 2016, 3, 585-595.	0.6	1
86	<title>Characterization of MEMS by feedback interferometry</title>. , 2002, 4755, 420.		0
87	A fiber optics setup for experiments on chaos synchronization and chaotic cryptography. , 2004, 5349, 290.		0
88	Optical characterization of micro-electro-mechanical structures. , 2004, , .		0
89	Optical cryptography by phase modulation of a chaotic carrier. , 2007, , .		0
90	Secure transmission with chaotic lasers synchronized by electrical injection. , 2009, , .		0

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91	Fluorescence detection of fibrillar proteins on silicon microstructures. , 2011, , .		0
92	Reconstruction of cell distribution in 3D silicon microstructures by label-free optical detection. , 2014, , .		0
93	Capillary optofluidics by high-aspect-ratio photonic crystals. , 2014, , .		0
94	High-resolution optical rangefinder based on 2 GHz telecom transceiver. , 2017, , .		0
95	A novel microfluidic sensing platform based on miniature rectangular glass capillaries and optical readout. , 2017, , .		0
96	Near-Infrared Transillumination of in Vivo Biological Tissues for Functional Imaging. , 2019, , .		0
97	Transmission of a chaos-masked signal with in-line all-optical wavelength conversion. , 2008, , .		0
98	Advances in Silicon Periodic Microstructures with Photonic Band Gaps in the Near Infrared Region. Lecture Notes in Electrical Engineering, 2010, , 43-46.	0.4	0
99	Alcohol-Infiltrated One-Dimensional Photonic Crystals. Lecture Notes in Electrical Engineering, 2011, , 33-37.	0.4	0
100	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.	0.4	0
101	Development of a Fiber Optic Sensor for Detection of General Anesthetics and Other Small Organic Molecules. , 1991, , 155-169.		0
102	Spectral Fingerprint Investigation in the near Infra-Red to Distinguish Harmful Ethylene Glycol from Isopropanol in a Microchannel. Sensors, 2022, 22, 459.	3.8	0
103	Modal analysis of piezoelectrically actuated plates with built-in stress by computationally augmented interferometric experiments. Sensors and Actuators A: Physical, 2022, 337, 113444.	4.1	0
104	Refractive Index Sensing in Microfluidic Channels With Integrated Reflectors by Measuring Light Spot Displacement. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-8.	4.7	0