

Sabina Merlo

List of Publications by Year in descending order

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Version: 2024-02-01

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 | Multiwavelength Fluidic Sensing of Water-Based Solutions in a Channel Microslide With SWIR LEDs. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10. | 4.7 | 4 |
| 2 | 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 |
| 3 | 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 |
| 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. | 4.7 | 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. | 4.7 | 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. | 4.6 | 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. | 3.7 | 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. | 3.8 | 8 |
| 12 | Ternary Lead Chalcogenide Alloys for Mid-Infrared Detectors. Journal of Electronic Materials, 2020, 49, 4577-4580. | 2.2 | 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. | 3.8 | 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. | 3.8 | 5 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 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. | 7.8 | 23 |
| 20 | Spectral Optical Readout of Rectangular-Miniature Hollow Glass Tubing for Refractive Index Sensing. Sensors, 2018, 18, 603. | 3.8 | 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. | 2.9 | 11 |
| 26 | Testing of Piezo-Actuated Glass Micro-Membranes by Optical Low-Coherence Reflectometry. Sensors, 2017, 17, 462. | 3.8 | 4 |
| 27 | Low-Coherence Reflectometry for Refractive Index Measurements of Cells in Micro-Capillaries. Sensors, 2016, 16, 1670. | 3.8 | 11 |
| 28 | An Innovative Cell Microincubator for Drug Discovery Based on 3D Silicon Structures. Journal of Nanomaterials, 2016, 2016, 1-10. | 2.7 | 2 |
| 29 | A Silicon Microsystem for Generation of Infrared Patterned Light. Journal of Display Technology, 2016, 12, 907-911. | 1.2 | 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. | 2.9 | 17 |
| 31 | Non-contact reflectometric readout of disposable microfluidic devices by near infra-red low-coherence interferometry. AIMS Biophysics, 2016, 3, 585-595. | 0.6 | 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. | 2.5 | 16 |
| 35 | Characterization of Rectangular Glass Microcapillaries by Low-Coherence Reflectometry. IEEE Photonics Technology Letters, 2015, 27, 1064-1067. | 2.5 | 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. | 2.9 | 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. | 3.3 | 13 |
| 38 | Capillarity-driven (self-powered) one-dimensional photonic crystals for refractometry and (bio)sensing applications. RSC Advances, 2014, 4, 51935-51941. | 3.6 | 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. | 6.0 | 9 |
| 43 | Isolation of <scp>L</scp>angerhans islets by dielectrophoresis. Electrophoresis, 2013, 34, 1068-1075. | 2.4 | 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, . | 3.3 | 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. | 2.9 | 8 |
| 46 | Optofluidic microsystems with integrated vertical one-dimensional photonic crystals for chemical analysis. Lab on A Chip, 2012, 12, 4403. | 6.0 | 61 |
| 47 | A New Cell-Selective Three-Dimensional Microincubator Based on Silicon Photonic Crystals. PLoS ONE, 2012, 7, e48556. | 2.5 | 10 |
| 48 | Fibrillogenesis of human α_2 -microglobulin in three-dimensional silicon microstructures. Journal of Biophotonics, 2012, 5, 785-792. | 2.3 | 8 |
| 49 | Integrated optofluidic microsystem based on vertical high-order one-dimensional silicon photonic crystals. Microfluidics and Nanofluidics, 2012, 12, 545-552. | 2.2 | 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. | 0.4 | 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. | 0.4 | 0 |
| 54 | Close-loop three-laser scheme for chaos-encrypted message transmission. Optical and Quantum Electronics, 2010, 42, 143-156. | 3.3 | 10 |

| # | ARTICLE | IF | CITATIONS |
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| 55 | Private Message Transmission by Common Driving of Two Chaotic Lasers. IEEE Journal of Quantum Electronics, 2010, 46, 258-264. | 1.9 | 42 |
| 56 | A modular micro-fluidic platform for cells handling by dielectrophoresis. Microelectronic Engineering, 2010, 87, 2124-2133. | 2.4 | 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. | 2.0 | 12 |
| 58 | Advances in Silicon Periodic Microstructures with Photonic Band Gaps in the Near Infrared Region. Lecture Notes in Electrical Engineering, 2010, , 43-46. | 0.4 | 0 |
| 59 | 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 |
| 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. | 3.3 | 13 |
| 62 | Chaos Encrypted Optical Communication System. Fiber and Integrated Optics, 2008, 27, 308-316. | 2.5 | 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. | 2.9 | 25 |
| 64 | A Chaos-Based Approach to Secure Communications. Optics and Photonics News, 2008, 19, 36. | 0.5 | 6 |
| 65 | Secure Chaotic Transmission on a Free-Space Optics Data Link. IEEE Journal of Quantum Electronics, 2008, 44, 1089-1095. | 1.9 | 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. | 3.3 | 15 |
| 69 | Message Encryption by Phase Modulation of a Chaotic Optical Carrier. IEEE Photonics Technology Letters, 2007, 19, 76-78. | 2.5 | 36 |
| 70 | All-Optical Wavelength Conversion of a Chaos Masked Signal. IEEE Photonics Technology Letters, 2007, 19, 1783-1785. | 2.5 | 17 |
| 71 | Testing of "Venetian-Blind" Silicon Microstructures With Optical Methods. Journal of Microelectromechanical Systems, 2006, 15, 588-596. | 2.5 | 7 |
| 72 | Silicon micromachined periodic structures for optical applications at $\lambda = 1.55 \mu\text{m}$. Applied Physics Letters, 2006, 89, 151110. | 3.3 | 31 |

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| 73 | Optical chaos masking of video signals. IEEE Photonics Technology Letters, 2005, 17, 1995-1997. | 2.5 | 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. | 2.9 | 13 |
| 76 | Fiberoptics setup for chaotic cryptographic communications. Comptes Rendus Physique, 2004, 5, 623-631. | 0.9 | 14 |
| 77 | Optical Detection of Multiple Modes on Resonant Micromachined Structures. IEEE Photonics Technology Letters, 2004, 16, 1703-1705. | 2.5 | 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. | 2.5 | 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. | 1.9 | 20 |
| 83 | Measurements on a micromachined silicon gyroscope by feedback interferometry. IEEE/ASME Transactions on Mechatronics, 2001, 6, 1-6. | 5.8 | 21 |
| 84 | Comparison of capacitive and feedback-interferometric measurements on MEMS. Journal of Microelectromechanical Systems, 2001, 10, 327-335. | 2.5 | 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. | 3.3 | 9 |
| 87 | Mechanical thermal noise in micromachined gyros. Microelectronics Journal, 1999, 30, 1227-1230. | 2.0 | 39 |
| 88 | Metal-Film Fiber Attenuators with Flat Spectral Response. Optical Fiber Technology, 1999, 5, 331-337. | 2.7 | 4 |
| 89 | A semiclassical model for noise propagation in depleted-pump optical amplifiers. IEEE Journal of Quantum Electronics, 1998, 34, 1823-1829. | 1.9 | 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. | 4.6 | 12 |
| 93 | Reconstruction of displacement waveforms with a single-channel laser-diode feedback interferometer. IEEE Journal of Quantum Electronics, 1997, 33, 527-531. | 1.9 | 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. | 2.5 | 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. | 4.7 | 75 |
| 97 | Thermodynamic phase noise in fibre interferometers. Optical and Quantum Electronics, 1996, 28, 43-49. | 3.3 | 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. | 4.6 | 10 |
| 99 | Laser diode feedback interferometer for measurement of displacements without ambiguity. IEEE Journal of Quantum Electronics, 1995, 31, 113-119. | 1.9 | 287 |
| 100 | Coiled-fiber sensor for vectorial measurement of magnetic field. Journal of Lightwave Technology, 1992, 10, 2006-2010. | 4.6 | 11 |
| 101 | Squeezed states in direct and coherent detection. Optical and Quantum Electronics, 1992, 24, 285-301. | 3.3 | 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. | 4.1 | 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. | 6.5 | 17 |