Francesco Chiavaioli

List of Publications by Year
in descending order

67 papers	2,079 citations	257450 24 h-index	330143 37 g-index
72 all docs	72 docs citations	72 times ranked	1437 citing authors

#	Article	IF	Citations
1	Towards a Uniform Metrological Assessment of Grating-Based Optical Fiber Sensors: From Refractometers to Biosensors. Biosensors, 2017, 7, 23.	4.7	281
2	Biosensing with optical fiber gratings. Nanophotonics, 2017, 6, 663-679.	6.0	224
3	Femtomolar Detection by Nanocoated Fiber Label-Free Biosensors. ACS Sensors, 2018, 3, 936-943.	7.8	193
4	Optical fibre gratings as tools for chemical and biochemical sensing. Analytical and Bioanalytical Chemistry, 2012, 402, 109-116.	3.7	135
5	Giant sensitivity of long period gratings in transition mode near the dispersion turning point: an integrated design approach. Optics Letters, 2012, 37, 4152.	3.3	126
6	Solâ€“Gel-Based Titaniaâ€“Silica Thin Film Overlay for Long Period Fiber Grating-Based Biosensors. Analytical Chemistry, 2015, 87, 12024-12031.	6.5	102
7	Long period grating in double cladding fiber coated with graphene oxide as high-performance optical platform for biosensing. Biosensors and Bioelectronics, 2021, 172, 112747.	10.1	100
8	Towards sensitive label-free immunosensing by means of turn-around point long period fiber gratings. Biosensors and Bioelectronics, 2014, 60, 305-310.	10.1	92
9	SPR-based plastic optical fibre biosensor for the detection of C-reactive protein in serum. Journal of Biophotonics, 2016, 9, 1077-1084.	2.3	73
10	Flow cell for strain- and temperature-compensated refractive index measurements by means of cascaded optical fibre long period and Bragg gratings. Measurement Science and Technology, 2011, 22, 075204.	2.6	60
11	Fiber Optic Sensing With Lossy Mode Resonances: Applications and Perspectives. Journal of Lightwave Technology, 2021, 39, 3855-3870.	4.6	53
12	Specially designed long period grating with internal geometric bending for enhanced refractive index sensitivity. Applied Physics Letters, 2013, 102, .	3.3	44
13	Plasmonic Fiber-Optic Photothermal Anemometers With Carbon Nanotube Coatings. Journal of Lightwave Technology, 2019, 37, 3373-3380.	4.6	43
14	Optimized Strain Long-Period Fiber Grating (LPFG) Sensors Operating at the Dispersion Turning Point. Journal of Lightwave Technology, 2018, 36, 2240-2247.	4.6	40
15	Long period grating-based fiber coupler to whispering gallery mode resonators. Optics Letters, 2014, 39, 6525.	3.3	39
16	Design, fabrication and characterisation of silica-titania thin film coated over coupled long period fibre gratings: Towards bio-sensing applications. Sensors and Actuators B: Chemical, 2017, 253, 418-427.	7.8	39
17	Long-period fiber grating: a specific design for biosensing applications. Applied Optics, 2017, 56, 9846.	1.8	38
18	Plasmonic Fiber Grating Biosensors Demodulated Through Spectral Envelopes Intersection. Journal of Lightwave Technology, 2021, 39, 7288-7295.	4.6	38

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19	Quasi-distributed and wavelength selective addressing of optical micro-resonators based on long period fiber gratings. Optics Express, 2015, 23, 21175.	3.4	37
20	Fiber-based early diagnosis of venous thromboembolic disease by label-free D-dimer detection. Biosensors and Bioelectronics: X, 2019, 2, 100026.	1.7	37
21	Characterisation of a labelâ€free biosensor based on long period grating. Journal of Biophotonics, 2014, 7, 312-322.	2.3	36
22	Effect of induced inner curvature on refractive index sensitivity in internally tilted long-period gratings. Optics Letters, 2016, 41, 1443.	3.3	34
23	(INVITED)Nanocoated fiber label-free biosensing for perfluorooctanoic acid detection by lossy mode resonance. Results in Optics, 2021, 5, 100123.	2.0	33
24	Ultrahigh Sensitive Detection of Tau Protein as Alzheimer's Biomarker via Microfluidics and Nanofunctionalized Optical Fiber Sensors. Advanced Photonics Research, 2022, 3, .	3.6	28
25	A Complete Optical Sensor System Based on a POF-SPR Platform and a Thermo-Stabilized Flow Cell for Biochemical Applications. Sensors, 2016, 16, 196.	3.8	23
26	Real-Time Study of the Adsorption and Grafting Process of Biomolecules by Means of Bloch Surface Wave Biosensors. ACS Applied Materials & Interfaces, 2018, 10, 33611-33618.	8.0	20
27	Sensing Performance of Fiber-Optic Combs Tuned by Nanometric Films: New Insights and Limits. IEEE Sensors Journal, 2021, 21, 13305-13315.	4.7	19
28	Long Period Grating-Based Fiber Coupling to WGM Microresonators. Micromachines, 2018, 9, 366.	2.9	18
29	Manufacturing and Spectral Features of Different Types of Long Period Fiber Gratings: Phase-Shifted, Turn-Around Point, Internally Tilted, and Pseudo-Random. Fibers, 2017, 5, 29.	4.0	13
30	Recent Development of Resonance-Based Optical Sensors and Biosensors. Optics, 2020, 1, 255-258.	1.2	13
31	Coupling light to whispering gallery mode resonators. Proceedings of SPIE, 2014, , .	0.8	7
32	In-fiber comb-like linear polarizer with leaky mode resonances. Optics and Laser Technology, 2021, 133, 106518.	4.6	6
33	Discriminating Bulk and Surface Refractive Index Changes With Fiber-Tip Leaky Mode Resonance. Journal of Lightwave Technology, 2023, 41, 4341-4351.	4.6	6
34	Spectral Ghost Imaging for Ultrafast Spectroscopy. IEEE Photonics Journal, 2022, 14, 1-4.	2.0	5
35	Label-free IgG/anti-IgG biosensing based on long period fiber gratings: a comprehensive feasibility study. , 2015, , .		4
36	Optical sensing in POCT: the contribution of the Institute of Applied Physics of the Italian CNR. Laboratoriums Medizin, 2017, 41, .	0.6	4

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37	Lossy Mode Resonance Sensors based on Tungsten Oxide Thin Films. , 2020, , .		4
38	Long period and fiber Bragg gratings written within the same fiber for sensing purposes. , 2011, , .		2
39	Fiber optic biosensor for inflammatory markers based on long period grating. , 2020, , .		2
40	IgG/anti-IgG immunoassay based on a turn-around point long period grating. , 2014, , .		1
41	Cladding modes fiber coupling to silica micro-resonators based on long period gratings. Proceedings of SPIE, 2015, , .	0.8	1
42	Optical heterogeneous bioassay for the detection of the inflammatory biomarker suPAR. , 2015, , .		1
43	Lossy Mode Resonance Fiber-Optic Biosensing Allowing Ultra-Low Detection Limit. , 2019, , .		1
44	High-Performance Label-Free Biosensing by Long Period Gratings. , 2015, , .		1
45	Photothermal anemometer based on carbon nanotube-coated highly tilted fiber Bragg grating-assisted SPR sensor. , 2019, , .		1
46	A Laboratory Impedance Meter For Electrochemical Sensors. , 2009, , .		0
47	Flow cell with hybrid LPG and FBG optical fibre sensor for refractometric measurements. , 2011, , .		0
48	Label-free biosensor based on long period grating. , 2013, , .		0
49	Miniaturised optical fiber pH sensor for gastro-esophageal applications. Proceedings of SPIE, 2013, , .	0.8	0
50	Improvement in refractive index sensitivity by means of internally curved long period fiber gratings. Proceedings of SPIE, 2014, , .	0.8	0
51	Comparative assessment of the performance of long period fiber grating-based biosensors. , 2015, , .		0
52	A thermo-stabilized flow cell for surface plasmon resonance sensors in D-shaped plastic optical fibers. Proceedings of SPIE, 2016, , .	0.8	0
53	Long period gratings based frequency selective interrogation of micro-resonators along the same fiber. Proceedings of SPIE, 2016, , .	0.8	0
54	The light at the service of medicine: optical sensing beside the patient's bed (Conference Presentation). , 2017, , .		0

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55	Design of microspheres and microbubbles for environmental chemical/biological optical sensing. , 2017, , .		0
56	Microspheres and microbubbles for chemical and biomedicine optical sensing. , 2017, , .		0
57	Optical coupling of spherical microresonators with tapered fibers for chemical/biomedical applications. , 2018, , .		0
58	Fiber Optic Sensing and Biosensing: New Challenges and Perspectives. , 2021, , .		0
59	Thermostatized Flow Cell and Hybrid LPG-FBG Configuration for Accurate Measurement of Refractive Index. Lecture Notes in Electrical Engineering, 2014, , 327-331.	0.4	0
60	Label-Free Biosensor Based on Copolymer-Functionalized Optical Fiber Long-Period Grating. Lecture Notes in Electrical Engineering, 2014, , 199-203.	0.4	0
61	Ultra-low detection limit lossy mode resonance-based fibre-optic biosensor. , 2018, , .		0
62	Random Long Period Fiber Gratings: Spectral Features and Perspectives. , 2018, , .		0
63	Passive and active whispering gallery mode microresonators in optical engineering. , 2019, , .		0
64	Fiber-optics: a new route towards ultra-low detection limit label-free biosensing. , 2019, , .		0
65	Lossy Mode Resonance Excitation in Fiber-Optics: Applications in Biosensing. , 2020, , .		0
66	Optimization of optical fiber long period gratings for biosensing applications. , 2020, , .		0
67	Long period grating coated with graphene oxide as platform for optical fiber biosensors. , 2021, , .		0