NÃ©lia Alberto

List of Publications by Year
in descending order

97	2,069	304743	243625
papers	citations	22 h-index	44 g-index

98	98	98	1978
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Respiratory and heart rate monitoring using an FBG 3D-printed wearable system. Biomedical Optics Express, 2022, 13, 2299.	2.9	32
2	Sensor Cell Network for Pressure, Temperature and Position Detection on Wheelchair Users. International Journal of Environmental Research and Public Health, 2022, 19, 2195.	2.6	3
3	FBGs Based System for Muscle Effort Monitoring in Wheelchair Users. IEEE Sensors Journal, 2022, 22, 12886-12893.	4.7	8
4	Instrumented Office Chair With Low-Cost Plastic Optical Fiber Sensors for Posture Control and Work Conditions Optimization. IEEE Access, 2022, 10, 69063-69071.	4.2	5
5	3D Printed Spirometer for Pulmonary Health Assessment Based on Fiber Bragg Gratings. IEEE Sensors Journal, 2021, 21, 4590-4598.	4.7	4
6	Optically Instrumented Insole for Gait Plantar and Shear Force Monitoring. IEEE Access, 2021, 9, 132480-132490.	4.2	8
7	Non-Invasive Wearable Optical Sensors for Full Gait Analysis in E-Health Architecture. IEEE Wireless Communications, 2021, 28, 28-35.	9.0	10
8	Optical Fiber Fabryâ€“Perot Interferometer Based Spirometer: Design and Performance Evaluation. Photonics, 2021, 8, 336.	2.0	5
9	Special Issue â€œOptical Fiber Interferometric Sensors: New Production Methodologies and Novel Applicationsâ€• Photonics, 2021, 8, 389.	2.0	0
10	Optical fiber FPI based sensor for arterial pulse waves assessment. , 2021, , .		0
11	Pulmonary Health Assessment using Fiber Bragg Gratings in a 3D Printed Spirometer. , 2021, , .		0
12	Photonic sensors for non-invasive home monitoring of elders. , 2021, , .		1
13	Wheelchair Pressure Ulcer Prevention Using FBG Based Sensing Devices. Sensors, 2020, 20, 212.	3.8	26
14	Cortisol in-fiber ultrasensitive plasmonic immunosensing. IEEE Sensors Journal, 2020, , 1-1.	4.7	49
15	Wearable Devices for Remote Physical Rehabilitation Using a Fabry-Perot Optical Fiber Sensor: Ankle Joint Kinematic. IEEE Access, 2020, 8, 109866-109875.	4.2	26
16	eHealth Solution for Cancer Patients Rehabilitation enabled by Optical Fiber Sensors. , 2020, , .		3
17	Fiber Bragg Based Sensors for Foot Plantar Pressure Analysis. Communications in Computer and Information Science, 2019, , 3-25.	0.5	2
18	Polymerization Shrinkage Evaluation of Restorative Resin-Based Composites Using Fiber Bragg Grating Sensors. Polymers, 2019, 11, 859.	4.5	16

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19	IoToF: A Long-Reach Fully Passive Low-Rate Upstream PHY for IoT over Fiber. Electronics (Switzerland), 2019, 8, 359.	3.1	13
20	Pulp Temperature Rise Induced by Light-Emitting Diode Light-Curing Units Using an Ex Vivo Model. Materials, 2019, 12, 411.	2.9	19
21	Wearable eHealth System for Physical Rehabilitation: Ankle Plantar-Dorsi-Flexion Monitoring. , 2019, , .		9
22	Fiber Bragg Gratings as e-Health Enablers: An Overview for Gait Analysis Applications. , 2019, , .		3
23	High Rate Dynamic Monitoring with Fabryâ€“Perot Interferometric Sensors: An Alternative Interrogation Technique Targeting Biomedical Applications. Sensors, 2019, 19, 4744.	3.8	21
24	Insole Optical Fiber Sensor Architecture for Remote Gait Analysisâ€”An e-Health Solution. IEEE Internet of Things Journal, 2019, 6, 207-214.	8.7	76
25	Optical fibre fuse effect based sensor for magnetic field monitoring. , 2019, , .		3
26	Low-cost intrinsic optical fiber FPI sensor for knee kinematic gait analysis and e-Health architecture. , 2019, , .		1
27	Bioinspired optical fiber sensor for simultaneous shear and vertical forces monitoring. , 2019, , .		1
28	Cost-effective high rate interrogation architecture for Fabry-Perot interferometric sensors. , 2019, , .		0
29	Graphene oxide filled optical fiber micro-cavity based temperature sensor. , 2019, , .		0
30	Cost-effective optical fiber pressure sensor based on intrinsic Fabry-Perot interferometric micro-cavities. Optical Fiber Technology, 2018, 42, 56-62.	2.7	58
31	Energy-Aware Wearable E-Health Architecture Using Optical FBG Sensors for Knee Kinematic Monitoring. , 2018, , .		19
32	Employment of optical fibers for RC bond-slip characterization. Procedia Structural Integrity, 2018, 11, 138-144.	0.8	1
33	Optical Fiber Magnetic Field Sensors Based on Magnetic Fluid: A Review. Sensors, 2018, 18, 4325.	3.8	115
34	Strain, temperature, moisture, and transverse force sensing using fused polymer optical fibers. Optics Express, 2018, 26, 12939.	3.4	26
35	Design and characterization of a curvature sensor using fused polymer optical fibers. Optics Letters, 2018, 43, 2539.	3.3	22
36	Optical sensors for bond-slip characterization and monitoring of RC structures. Sensors and Actuators A: Physical, 2018, 280, 332-339.	4.1	23

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37	Dynamic mechanical analysis on fused polymer optical fibers: towards sensor applications. Optics Letters, 2018, 43, 1754.	3.3	15
38	Gait Shear and Plantar Pressure Monitoring: A Non-Invasive OFS Based Solution for e-Health Architectures. Sensors, 2018, 18, 1334.	3.8	45
39	Biaxial optical fiber sensor based in two multiplexed Bragg gratings for simultaneous shear stress and vertical pressure monitoring. , 2018, , .		2
40	Optical Fiber Technology for eHealthcare. , 2018, , 1503-1526.		1
41	Insole optical fiber Bragg grating sensors network for dynamic vertical force monitoring. Journal of Biomedical Optics, 2017, 22, 091507.	2.6	55
42	Acoustic waves in tilted fiber Bragg gratings for sensing applications. , 2017, , .		1
43	Refractive index sensor based on tilted fiber Bragg gratings driven by acoustic waves. , 2017, , .		1
44	Non-Invasive Insole Optical Fiber Sensor Architecture for Monitoring Foot Anomalies. , 2017, , .		3
45	Low-Cost Interrogation Technique for Dynamic Measurements with FBG-Based Devices. Sensors, 2017, 17, 2414.	3.8	62
46	Incorporation of Fiber Bragg Sensors for Shape Memory Polyurethanes Characterization. Sensors, 2017, 17, 2600.	3.8	5
47	Diamond-coated fiber Bragg grating through the hot filament chemical vapor process for chemical durability improvement. Applied Optics, 2017, 56, 1603.	2.1	4
48	Cost-effective in-line optical fiber Fabry-Perot interferometric pressure sensor. , 2017, , .		0
49	Cuspal Displacement Induced by Bulk Fill Resin Composite Polymerization: Biomechanical Evaluation Using Fiber Bragg Grating Sensors. International Journal of Biomaterials, 2016, 2016, 1-9.	2.4	17
50	Internal and External Temperature Monitoring of a Li-Ion Battery with Fiber Bragg Grating Sensors. Sensors, 2016, 16, 1394.	3.8	114
51	Recycling optical fibers for sensing. , 2016, , .		2
52	High temperatures (>1000ÂÂ°C) monitoring during the sintering process in microwave oven using RFBGs. Optical and Quantum Electronics, 2016, 48, 1.	3.3	4
53	Relative humidity sensing using micro-cavities produced by the catastrophic fuse effect. Optical and Quantum Electronics, 2016, 48, 1.	3.3	51
54	Cost effective refractive index sensor based on optical fiber micro cavities produced by the catastrophic fuse effect. Measurement: Journal of the International Measurement Confederation, 2016, 77, 265-268.	5.0	22

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55	Enhanced sensitivity high temperature optical fiber FPI sensor created with the catastrophic fuse effect. Microwave and Optical Technology Letters, 2015, 57, 972-974.	1.4	11
56	Hydrostatic pressure sensor based on micro-cavities developed by the catastrophic fuse effect. , 2015, , .		1
57	Liquid Hydrostatic Pressure Optical Sensor Based on Micro-Cavity Produced by the Catastrophic Fuse Effect. IEEE Sensors Journal, 2015, 15, 5654-5658.	4.7	31
58	Simultaneous regeneration of seed FBGs during the HFCVD diamond-grating coating process and its thermal monitoring. Proceedings of SPIE, 2015, , .	0.8	2
59	Lithium batteries temperature and strain fiber monitoring. , 2015, , .		5
60	Fibre Bragg Gratings, towards a Better Thermal Stability at High Temperatures. Physics Procedia, 2015, 62, 71-78.	1.2	4
61	Characterization of Graphene Oxide Coatings onto Optical Fibers for Sensing Applications. Materials Today: Proceedings, 2015, 2, 171-177.	1.8	11
62	Theoretical Design of a High Sensitivity SPR-Based Optical Fiber Pressure Sensor. Journal of Lightwave Technology, 2015, 33, 4606-4611.	4.6	34
63	Thermal monitoring of the thermoplastic injection molding process with FBGs. Proceedings of SPIE, 2014, , .	0.8	0
64	Sensors based on recycled optical fibers destroyed by the catastrophic fuse effect. Proceedings of SPIE, 2014, , .	0.8	0
65	Optical strain sensor based on FPI micro-cavities produced by the fiber fuse effect. Proceedings of SPIE, 2014, , .	0.8	0
66	Theoretical modeling of an U-shaped SPR fiber sensor in 1550-nm spectral range for sensing applications. Proceedings of SPIE, 2014, , .	0.8	2
67	Plastic optical fibre sensor for Madeira wine monitoring. Proceedings of SPIE, 2014, , .	0.8	0
68	Optical Fiber Microcavity Strain Sensors Produced by the Catastrophic Fuse Effect. IEEE Photonics Technology Letters, 2014, 26, 78-81.	2.5	66
69	Optimisation of tailored diamond coating conditions onto optical fibres through the Taguchi method. Diamond and Related Materials, 2014, 43, 60-65.	3.9	8
70	Concentration sensor based on a tilted fiber Bragg grating for anions monitoring. Optical Fiber Technology, 2014, 20, 422-427.	2.7	56
71	Regeneration of FBGs during the HFCVD diamond-fiber coating process. , 2014, , .		2
72	Inscription of narrow bandwidth Bragg gratings in polymer optical fibers. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.2	6

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73	Madeira wine online quality control. , 2013, , .		0
74	Narrow bandwidth Bragg gratings imprinted in polymer optical fibers for different spectral windows. Optics Communications, 2013, 307, 57-61.	2.1	62
75	Thermal monitoring of the diamond deposition process using regenerated FBG. , 2013, , .		4
76	Optical Fiber Technology for eHealthcare. , 2013, , 180-200.		12
77	Feasibility studies of Bragg probe for noninvasive carotid pulse waveform assessment. Journal of Biomedical Optics, 2013, 18, 017006.	2.6	31
78	Optical fibre monitoring of Madeira wine estufagem process. , 2013, , .		0
79	Plastic optical fibre sensor for quality control in food industry. , 2013, , .		0
80	Refractive Index Sensor Based on Optical Fiber Void Cavities Produced by the Catastrophic Fuse Effect. , 2013, , .		0
81	Multiparameter Optical Monitoring of Madeira Wine. International Journal of Online and Biomedical Engineering, 2013, 9, 62.	1.4	0
82	Development of a FBG probe for non-invasive carotid pulse waveform assessment. Proceedings of SPIE, 2012, , .	0.8	4
83	Nanodiamond coated Bragg gratings for sensing applications. , 2012, , .		5
84	Optical Sensors Based on Plastic Fibers. Sensors, 2012, 12, 12184-12207.	3.8	349
85	Analytical Analysis of Side-Polished Plastic Optical Fiber as Curvature and Refractive Index Sensor. Journal of Lightwave Technology, 2011, 29, 864-870.	4.6	70
86	Side-polished plastic optical fibre as refractive index, cure and viscosity sensor. , 2011, , .		2
87	Multichannel dispersion compensation using a simplified approach SFBG design. , 2011, , .		0
88	Simultaneous temperature and refractive index sensor based on a tilted fibre Bragg grating. Proceedings of SPIE, 2011, , .	0.8	2
89	Three parameters simultaneous measurement with a single TFBG. Proceedings of SPIE, 2011, , .	0.8	1
90	Characterization of different water/powder ratios of dental gypsum using fiber Bragg grating sensors. Dental Materials Journal, 2011, 30, 700-706.	1.8	13

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91	In the trail of a new bio-sensor for measuring strain in bone: Osteoblastic biocompatibility. Biosensors and Bioelectronics, 2011, 26, 4046-4052.	10.1	22
92	Evaluation of Diamond Coatings on Optical Fibre Sensors for Biological Use. Journal of Nanoscience and Nanotechnology, 2011, 11, 5408-5412.	0.9	10
93	Optical Sensors Based on Fiber Bragg Gratings for Structural Health Monitoring. Lecture Notes in Electrical Engineering, 2011, , 253-295.	0.4	18
94	Simultaneous strain and refractive index sensor based on a TFBG. , 2010, , .		5
95	A simple and low-cost cure monitoring system based on a side-polished plastic optical fibre. Measurement Science and Technology, 2010, 21, 117001.	2.6	14
96	Three-parameter optical fiber sensor based on a tilted fiber Bragg grating. Applied Optics, 2010, 49, 6085.	2.1	68
97	Optical Fiber Accelerometer System for Structural Dynamic Monitoring. IEEE Sensors Journal, 2009, 9, 1347-1354.	4.7	126