Andrea Cusano

List of Publications by Year
in descending order

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139	3,890	101543	138484
papers	citations	36	58
		h-index	g-index

142	142	142	3155
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Lab on Fiber Technology Towards Advanced and Multifunctional Point-of-Care Platforms for Precision Medicine. , 2023, , 504-527.		0
2	Highly Efficient Fiber Optic Thermal Heating Device Based on Turn-Around-Point Long Period Gratings. Journal of Lightwave Technology, 2022, 40, 797-804.	4.6	9
3	Liquid Resin Infusion Process Validation through Fiber Optic Sensor Technology. Sensors, 2022, 22, 508.	3.8	6
4	(INVITED)Miniaturized lenses integrated on optical fibers: Towards a new milestone along the lab-on-fiber technology roadmap. Results in Optics, 2022, 6, 100203.	2.0	10
5	Feasibility analysis of an ultrasound on line diagnostic approach for oral and bone surgery. Scientific Reports, 2022, 12, 905.	3.3	6
6	Cavity enhanced lab-on-fiber optrode for ultra-sensitive pH monitoring. Sensors & Diagnostics, 2022, 1, 534-540.	3.8	4
7	Integrated Optoelectronic Devices Using Labâ€Onâ€Fiber Technology. Advanced Materials Technologies, 2022, 7, .	5.8	8
8	Design and Optimization of All-Dielectric Fluorescence Enhancing Metasurfaces: Towards Advanced Metasurface-Assisted Optrodes. Biosensors, 2022, 12, 264.	4.7	6
9	Ultrasound waves in tumors via needle irradiation for precise medicine. Scientific Reports, 2022, 12, 6513.	3.3	5
10	Stimuliâ€responsive hybrid microgels for controlled drug delivery: Sorafenib as a model drug. Journal of Applied Polymer Science, 2021, 138, 50147.	2.6	11
11	Lab-on-fiber SERS optrodes for biomedical applications. , 2021, , .		0
12	Tailoring lab-on-fiber SERS optrodes towards biological targets of different sizes. Sensors and Actuators B: Chemical, 2021, 339, 129321.	7.8	28
13	Tapered multicore optical fiber probe for optogenetics. Results in Optics, 2021, 4, 100109.	2.0	1
14	Miniaturized optical fiber probe for prostate cancer screening. Biomedical Optics Express, 2021, 12, 5691.	2.9	4
15	Analysis of thermo-plasmonic lab-on-fiber probes in liquid environments. Smart Materials and Structures, 2021, 30, 125007.	3.5	2
16	Opto-mechanical Lab-on-fiber accelerometers. , 2021, , .		0
17	An innovative extrinsic fiber optic sensor for real-time radiation monitoring. , 2021, , .		1
18	Optical meta-waveguides for integrated photonics and beyond. Light: Science and Applications, 2021, 10, 235.	16.6	196

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19	Robot-Aided Prostate Cancer Diagnosis with Fiber Optic Sensing: A Validation Study on Phantoms and Ex-Vivo Tissues. Uro, 2021, 1, 245-253.	0.8	3
20	(INVITED)Development of custom Surface Plasmon Resonance Au biosensor for liver cancer biomarker detection. Results in Optics, 2021, 5, 100193.	2.0	10
21	Lab-on-fiber SERS optrodes for biological target detection. , 2021, , .		0
22	Detection of small DNA fragments by biolayer interferometry. Analytical Biochemistry, 2020, 607, 113898.	2.4	7
23	Thermo-plasmonic lab-on-fiber optrodes. Optics and Laser Technology, 2020, 132, 106502.	4.6	20
24	Lab-On-Fiber Technology: A Roadmap toward Multifunctional Plug and Play Platforms. Sensors, 2020, 20, 4705.	3.8	51
25	Metasurfaceâ€Enhanced Labâ€onâ€Fiber Biosensors. Laser and Photonics Reviews, 2020, 14, 2000180.	8.7	58
26	Opto-Mechanical Lab-on-Fiber Accelerometers. Journal of Lightwave Technology, 2020, 38, 1998-2009.	4.6	13
27	Analysis of uncoated LPGs written in B-Ge doped fiber under proton irradiation for sensing applications at CERN. Scientific Reports, 2020, 10, 1344.	3.3	15
28	Improving the width of lossy mode resonances in a reflection configuration D-shaped fiber by nanocoating laser ablation. Optics Letters, 2020, 45, 4738.	3.3	13
29	Absolute calibration for film dosimetry. International Journal of Modern Physics Conference Series, 2020, 50, 2060012.	0.7	2
30	A novel method for EBT3 Gafchromic films read-out at high dose levels. Physica Medica, 2019, 61, 77-84.	0.7	21
31	Real-time dosimetry with radiochromic films. Scientific Reports, 2019, 9, 5307.	3.3	29
32	Cavity-Enhanced Lab-on-Fiber Technology: Toward Advanced Biosensors and Nano-Opto-Mechanical Active Devices. ACS Photonics, 2019, 6, 3271-3280.	6.6	43
33	Optical fiber technology enables smart needles for epidurals: an in-vivo swine study. Biomedical Optics Express, 2019, 10, 1351.	2.9	20
34	A fiber optic sensors system for load monitoring on aircraft landing gears. , 2019, , .		4
35	Multiresponsive microgels integration onto lab-on-fiber devices. , 2019, , .		0
36	Lab-on-fiber SERS substrates for biomolecular recognition. , 2019, , .		0

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37	Opto-mechanical lab-on-fiber accelerometers. , 2019, , .		3
38	Innovative lab on fiber dosimeters for ionizing radiation monitoring at ultra-high doses. , 2019, , .		0
39	Opto-mechanical lab-on-fibre seismic sensors detected the Norcia earthquake. Scientific Reports, 2018, 8, 6680.	3.3	35
40	A Time-Efficient Dip Coating Technique for the Deposition of Microgels onto the Optical Fiber Tip. Fibers, 2018, 6, 72.	4.0	22
41	Smart Optical Catheters for Epidurals. Sensors, 2018, 18, 2101.	3.8	21
42	A novel Lab-on-Fiber Radiation Dosimeter for Ultra-high Dose Monitoring. Scientific Reports, 2018, 8, 17841.	3.3	18
43	A Fiber Bragg Grating Liquid Level Sensor Based on the Archimedes' Law of Buoyancy. Journal of Lightwave Technology, 2018, 36, 4936-4941.	4.6	26
44	Excitation of Bloch Surface Waves on an Optical Fiber Tip. Advanced Optical Materials, 2018, 6, 1800477.	7.3	38
45	Nanosphere Lithography on Fiber: Towards Engineered Lab-On-Fiber SERS Optrodes. Sensors, 2018, 18, 680.	3.8	60
46	Optimization Strategies for Responsivity Control of Microgel Assisted Lab-On-Fiber Optrodes. Sensors, 2018, 18, 1119.	3.8	22
47	Opto-mechanical lab-on-fibre seismic sensors detected the Norcia earthquake. , 2018, , .		4
48	Radiation Sensitivity of Long Period Gratings written in B-Ge doped fiber under proton irradiation at CERN. , 2018, , .		6
49	Optical fiber meta-tips. Light: Science and Applications, 2017, 6, e16226-e16226.	16.6	122
50	Nanosphere lithography for optical fiber tip nanoprobes. Light: Science and Applications, 2017, 6, e16229-e16229.	16.6	103
51	Fluorescent chemosensors for Hg2+ detection in aqueous environment. Sensors and Actuators B: Chemical, 2017, 247, 727-735.	7.8	47
52	Optical fiber meta-tips: perspectives in sensing applications. Proceedings of SPIE, 2017, , .	0.8	1
53	Triaxial Fiber Optic Magnetic Field Sensor for Magnetic Resonance Imaging. Journal of Lightwave Technology, 2017, 35, 3924-3933.	4.6	37
54	Optical Guidance Systems for Epidural Space Identification. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 371-379.	2.9	43

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55	An optical fiber intrusion detection system for railway security. Sensors and Actuators A: Physical, 2017, 253, 91-100.	4.1	49
56	Label-free fiber optic optrode for the detection of class C Î²-lactamases expressed by drug resistant bacteria. Biomedical Optics Express, 2017, 8, 5191.	2.9	25
57	Fiber Optic Thermo-Hygrometers for Soil Moisture Monitoring. Sensors, 2017, 17, 1451.	3.8	20
58	One year of FBG-based thermo-hygrometers in operation in the CMS experiment at CERN. Journal of Instrumentation, 2016, 11, P03007-P03007.	1.2	15
59	Grating-coupling-based excitation of Bloch surface waves for lab-on-fiber optrodes. Optics Express, 2016, 24, 27771.	3.4	21
60	Optical fiber meta-tips. Proceedings of SPIE, 2016, , .	0.8	0
61	Lab-on-Fiber Plasmonic Probes for Ultrasound Detection: A Comparative Study. Journal of Lightwave Technology, 2016, 34, 5189-5198.	4.6	13
62	Triaxial fiber optic magnetic field sensor for MRI applications. , 2016, , .		2
63	Lab on Fiber Technology for biological sensing applications. Laser and Photonics Reviews, 2016, 10, 922-961.	8.7	217
64	Guest Editorial Special Issue on Selected Papers From the IEEE Sensors Conference 2014. IEEE Sensors Journal, 2016, 16, 3348-3348.	4.7	0
65	Nanosphere lithography for advanced all fiber Sers probes. Proceedings of SPIE, 2016, , .	0.8	6
66	Long period fiber grating nano-optrode for cancer biomarker detection. Biosensors and Bioelectronics, 2016, 80, 590-600.	10.1	79
67	Bacteriophage Adhesin-Coated Long-Period Grating-Based Sensor: Bacteria Detection Specificity. Journal of Lightwave Technology, 2016, 34, 4531-4536.	4.6	20
68	High Sensitive Long Period Fiber Grating Biosensor for Cancer Biomarker Detection. , 2016, , .		1
69	Plasmonic Light Trapping in Thin-Film Solar Cells: Impact of Modeling on Performance Prediction. Materials, 2015, 8, 3648-3670.	2.9	4
70	Self-assembled periodic patterns on the optical fiber tip by microsphere arrays. Proceedings of SPIE, 2015, , .	0.8	7
71	Cryogenic-temperature profiling of high-power superconducting lines using local and distributed optical-fiber sensors. Optics Letters, 2015, 40, 4424.	3.3	38
72	Detection specificity studies of bacteriophage adhesin-coated long-period grating-based biosensor. Proceedings of SPIE, 2015, , .	0.8	0

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73	Supersymmetry-Inspired Non-Hermitian Optical Couplers. Scientific Reports, 2015, 5, 8568.	3.3	26
74	Lab on Fiber by Using the Breath Figure Technique. Springer Series in Surface Sciences, 2015, , 233-250.	0.3	2
75	Lab-on-fiber technology: a new vision for chemical and biological sensing. Analyst, The, 2015, 140, 8068-8079.	3.5	168
76	An Intrusion Detection System for the Protection of Railway Assets Using Fiber Bragg Grating Sensors. Sensors, 2014, 14, 18268-18285.	3.8	42
77	Special Issue on the Third Mediterranean Photonics Conference (MePhoCo2014). IEEE Photonics Journal, 2014, 6, 1-2.	2.0	0
78	Versatile Optical Fiber Nanoprobes: From Plasmonic Biosensors to Polarization-Sensitive Devices. ACS Photonics, 2014, 1, 69-78.	6.6	64
79	Miniaturized Sensing Probes Based on Metallic Dielectric Crystals Self-Assembled on Optical Fiber Tips. ACS Photonics, 2014, 1, 917-927.	6.6	72
80	Nanoscale TiO_2-coated LPGs as radiation-tolerant humidity sensors for high-energy physics applications. Optics Letters, 2014, 39, 4128.	3.3	39
81	Temperature and strain characterization of long period gratings in air guiding fiber. , 2013, , .		2
82	Porphyrin thin films on fiber optic probes through UV-light induced deposition. Optics and Laser Technology, 2013, 49, 279-283.	4.6	4
83	Design and analysis of photonic quasi-crystal hollow core fibers. Proceedings of SPIE, 2013, , .	0.8	3
84	Lab on fiber by using the breath figure technique. Proceedings of SPIE, 2013, , .	0.8	4
85	Fiber Bragg Grating sensors to measure the coefficient of thermal expansion of polymers at cryogenic temperatures. Sensors and Actuators A: Physical, 2013, 189, 195-203.	4.1	54
86	Surface sensitivity of Rayleigh anomalies in metallic nanogratings. Optics Express, 2013, 21, 23531.	3.4	39
87	Porphyrin coated fiber optic probes for acid vapor detection. Proceedings of SPIE, 2013, , .	0.8	1
88	Ultrasensitive nanoprobes based on metallo-dielectric crystals integrated onto optical fiber tips using the breath figures technique. Proceedings of SPIE, 2013, , .	0.8	2
89	Surface vs. bulk sensitivity of sensors based on Rayleigh anomalies in metallic nanogratings. , 2013, , .		5
90	RESONANT HYDROPHONES BASED ON COATED FIBER BRAGG GRATINGS FOR UNDERWATER MONITORING. , 2013, , 145-174.		0

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91	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
92	Long-Term Temperature Monitoring in CMS Using Fiber Optic Sensors. IEEE Sensors Journal, 2012, 12, 3392-3398.	4.7	11
93	Correction to â€œLab-on-a-Fiber Device for Trace Vapor TNT Explosive Detection: Comprehensive Performance Evaluationâ€•[Apr 13 1127-1133]. Journal of Lightwave Technology, 2012, 30, 3068-3068.	4.6	0
94	A calibration method based on look-up-table for cryogenic temperature fiber Bragg grating sensors. Proceedings of SPIE, 2012, , .	0.8	1
95	Plasmonic-photonic resonances in nanostructured metallo-dielectric quasi-crystals: tuning and sensitivity analysis. Proceedings of SPIE, 2012, , .	0.8	0
96	Resonant Hydrophones Based on Coated Fiber Bragg Gratings. Journal of Lightwave Technology, 2012, 30, 2472-2481.	4.6	63
97	Lab-on-fiber technology: a new avenue for optical nanosensors. Photonic Sensors, 2012, 2, 289-314.	5.0	60
98	TNT Vapor Detection Based on a Lab-on-a-Fiber: Achieving a Millimeter-Scale Sensing Element on Fiber. IEEE Sensors Journal, 2012, 12, 213-217.	4.7	5
99	Lab-on-Fiber Technology: Toward Multifunctional Optical Nanoprobes. ACS Nano, 2012, 6, 3163-3170.	14.6	197
100	One Year of FOS Measurements in CMS Experiment at CERN. Physics Procedia, 2012, 37, 79-84.	1.2	9
101	Nanostructured Metalloâ€Dielectric Quasiâ€Crystals: Towards Photonicâ€Plasmonic Resonance Engineering. Advanced Functional Materials, 2012, 22, 4389-4398.	14.9	28
102	A protein-based biointerfacing route toward label-free immunoassays with long period gratings in transition mode. Biosensors and Bioelectronics, 2012, 31, 486-491.	10.1	38
103	Lab-on-a-Fiber Device for Trace Vapor TNT Explosive Detection: Comprehensive Performance Evaluation. Journal of Lightwave Technology, 2012, 30, 1127-1133.	4.6	11
104	Long-Period Gratings in Hollow Core Fibers by Pressure-Assisted Arc Discharge Technique. IEEE Photonics Technology Letters, 2011, 23, 1567-1569.	2.5	48
105	Long Period Grating in hollow core fibers: Fabrication and characterization. , 2011, , .		1
106	Resonant hydrophones based on coated fiber Bragg gratings. Part I: numerical analysis. , 2011, , .		4
107	Transition mode long period grating biosensor with functional multilayer coatings. Optics Express, 2011, 19, 512.	3.4	54
108	Opto-acoustic behavior of coated fiber Bragg gratings. Optics Express, 2011, 19, 18842.	3.4	43

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109	Evidence of guided resonances in photonic quasicrystal slabs. Physical Review B, 2011, 84, .	3.2	27
110	Self Assembling and Coordination of Water Nano-Layers On Polymer Coated Long Period Gratings: Toward New Perspectives for Cation Detection. Soft Materials, 2011, 9, 238-263.	1.7	7
111	Tuning efficiency and sensitivity of guided resonances in photonic crystals and quasi-crystals: a comparative study. Optics Express, 2010, 18, 17280.	3.4	20
112	Experimental evidence of guided-resonances in photonic crystals with aperiodically ordered supercells. Optics Letters, 2010, 35, 3946.	3.3	17
113	Molecular Sensing by Nanoporous Crystalline Polymers. Sensors, 2009, 9, 9816-9857.	3.8	75
114	Parametric study of guided resonances in octagonal photonic quasicrystals. Microwave and Optical Technology Letters, 2009, 51, 2737-2740.	1.4	3
115	Photonic bandgap modification in hollow optical fibers integrated with single walled carbon nanotubes. Microwave and Optical Technology Letters, 2009, 51, 2729-2732.	1.4	4
116	Not-lithographic fabrication of micro-structured fiber Bragg gratings evanescent wave sensors. Optics Express, 2009, 17, 1042.	3.4	22
117	Insights into tunnelling rays: outperforming guided rays in fiber-optic sensing device. Optics Express, 2009, 17, 7630.	3.4	16
118	Guided resonances in photonic crystals with point-defected aperiodically-ordered supercells. Optics Express, 2009, 17, 19586.	3.4	11
119	Microstructured Fiber Bragg Gratings. Journal of Lightwave Technology, 2009, 27, 1663-1697.	4.6	69
120	Time Delay Measurements as Promising Technique for Tilted Fiber Bragg Grating Sensors Interrogation. IEEE Photonics Technology Letters, 2009, 21, 1752-1754.	2.5	8
121	Underwater Acoustic Sensors Based on Fiber Bragg Gratings. Sensors, 2009, 9, 4446-4454.	3.8	60
122	Guided resonances in photonic quasicrystals. Optics Express, 2009, 17, 6335-46.	3.4	15
123	Structured Chirped Fiber Bragg Gratings. Journal of Lightwave Technology, 2008, 26, 1613-1625.	4.6	22
124	Fiber-Optic Near-Field Chemical Sensors Based on Wavelength Scale Tin Dioxide Particle Layers. Journal of Lightwave Technology, 2008, 26, 3468-3475.	4.6	4
125	Photonic band-gap engineering in UV fiber gratings by the arc discharge technique. Optics Express, 2008, 16, 15332.	3.4	38
126	External Refractive Index Sensitivity of Weakly Tilted Fiber Bragg Gratings With Different Coating Thicknesses. IEEE Sensors Journal, 2008, 8, 1330-1336.	4.7	28

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127	Integrated Development of Chemoptical Fiber Nanosensors. Current Analytical Chemistry, 2008, 4, 296-315.	1.2	24
128	Coated Fiber Bragg Grating As High Sensitivity Hydrophone. , 2008, , .		0
129	Chemical Detection in Water by Single-Walled Carbon Nanotubes-Based Optical Fiber Sensors. IEEE Sensors Journal, 2007, 7, 1004-1005.	4.7	21
130	Carbon Nanotubes Coated Acoustic and Optical VOCs Sensors: Towards the Tailoring of the Sensing Performances. IEEE Nanotechnology Magazine, 2007, 6, 601-612.	2.0	20
131	Fiber Bragg Grating and Magnetic Shape Memory Alloy: Novel High-Sensitivity Magnetic Sensor. IEEE Sensors Journal, 2007, 7, 228-229.	4.7	13
132	Sensitivity Characteristics Tuning in Tapered Long-Period Gratings by Nanocoatings. IEEE Photonics Technology Letters, 2007, 19, 1517-1519.	2.5	9
133	Novel Optochemical Sensors Based on Hollow Fibers and Single Walled Carbon Nanotubes. IEEE Photonics Technology Letters, 2006, 18, 2431-2433.	2.5	16
134	A Novel Optochemical Sensor Based on $hbox{SnO}_{2}$ Sensitive Thin Film for ppm Ammonia Detection in Liquid Environment. Journal of Lightwave Technology, 2006, 24, 5000-5007.	4.6	31
135	Carbon nanotubes thin films fiber optic and acoustic VOCs sensors: Performances analysis. Sensors and Actuators B: Chemical, 2006, 118, 232-242.	7.8	70
136	Sensitivity characteristics in nanosized coated long period gratings. Applied Physics Letters, 2006, 89, 201116.	3.3	48
137	Thinned and micro-structured fibre Bragg gratings: towards new all-fibre high-sensitivity chemical sensors. Journal of Optics, 2005, 7, 734-741.	1.5	22
138	Cladding mode reorganization in high-refractive-index-coated long-period gratings: effects on the refractive-index sensitivity. Optics Letters, 2005, 30, 2536.	3.3	98
139	Response of fiber Bragg gratings to longitudinal ultrasonic waves. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2005, 52, 304-312.	3.0	114