

Andrea Cusano

List of Publications by Year in descending order

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139
papers

3,890
citations

101543

36
h-index

138484

58
g-index

142
all docs

142
docs citations

142
times ranked

3155
citing authors

#	ARTICLE	IF	CITATIONS
1	Lab on Fiber Technology for biological sensing applications. Laser and Photonics Reviews, 2016, 10, 922-961.	8.7	217
2	Lab-on-Fiber Technology: Toward Multifunctional Optical Nanoprobes. ACS Nano, 2012, 6, 3163-3170.	14.6	197
3	Optical meta-waveguides for integrated photonics and beyond. Light: Science and Applications, 2021, 10, 235.	16.6	196
4	Lab-on-fiber technology: a new vision for chemical and biological sensing. Analyst, The, 2015, 140, 8068-8079.	3.5	168
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	Optical fiber meta-tips. Light: Science and Applications, 2017, 6, e16226-e16226.	16.6	122
7	Response of fiber Bragg gratings to longitudinal ultrasonic waves. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2005, 52, 304-312.	3.0	114
8	Nanosphere lithography for optical fiber tip nanoprobe. Light: Science and Applications, 2017, 6, e16229-e16229.	16.6	103
9	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
10	Long period fiber grating nano-optrode for cancer biomarker detection. Biosensors and Bioelectronics, 2016, 80, 590-600.	10.1	79
11	Molecular Sensing by Nanoporous Crystalline Polymers. Sensors, 2009, 9, 9816-9857.	3.8	75
12	Miniaturized Sensing Probes Based on Metallic Dielectric Crystals Self-Assembled on Optical Fiber Tips. ACS Photonics, 2014, 1, 917-927.	6.6	72
13	Carbon nanotubes thin films fiber optic and acoustic VOCs sensors: Performances analysis. Sensors and Actuators B: Chemical, 2006, 118, 232-242.	7.8	70
14	Microstructured Fiber Bragg Gratings. Journal of Lightwave Technology, 2009, 27, 1663-1697.	4.6	69
15	Versatile Optical Fiber Nanoprobes: From Plasmonic Biosensors to Polarization-Sensitive Devices. ACS Photonics, 2014, 1, 69-78.	6.6	64
16	Resonant Hydrophones Based on Coated Fiber Bragg Gratings. Journal of Lightwave Technology, 2012, 30, 2472-2481.	4.6	63
17	Underwater Acoustic Sensors Based on Fiber Bragg Gratings. Sensors, 2009, 9, 4446-4454.	3.8	60
18	Lab-on-fiber technology: a new avenue for optical nanosensors. Photonic Sensors, 2012, 2, 289-314.	5.0	60

#	ARTICLE	IF	CITATIONS
19	Nanosphere Lithography on Fiber: Towards Engineered Lab-On-Fiber SERS Optrodes. <i>Sensors</i> , 2018, 18, 680.	3.8	60
20	Metasurface-Enhanced Lab-on-Fiber Biosensors. <i>Laser and Photonics Reviews</i> , 2020, 14, 2000180.	8.7	58
21	Transition mode long period grating biosensor with functional multilayer coatings. <i>Optics Express</i> , 2011, 19, 512.	3.4	54
22	Fiber Bragg Grating sensors to measure the coefficient of thermal expansion of polymers at cryogenic temperatures. <i>Sensors and Actuators A: Physical</i> , 2013, 189, 195-203.	4.1	54
23	Lab-On-Fiber Technology: A Roadmap toward Multifunctional Plug and Play Platforms. <i>Sensors</i> , 2020, 20, 4705.	3.8	51
24	An optical fiber intrusion detection system for railway security. <i>Sensors and Actuators A: Physical</i> , 2017, 253, 91-100.	4.1	49
25	Sensitivity characteristics in nanosized coated long period gratings. <i>Applied Physics Letters</i> , 2006, 89, 201116.	3.3	48
26	Long-Period Gratings in Hollow Core Fibers by Pressure-Assisted Arc Discharge Technique. <i>IEEE Photonics Technology Letters</i> , 2011, 23, 1567-1569.	2.5	48
27	Fluorescent chemosensors for Hg ²⁺ detection in aqueous environment. <i>Sensors and Actuators B: Chemical</i> , 2017, 247, 727-735.	7.8	47
28	Opto-acoustic behavior of coated fiber Bragg gratings. <i>Optics Express</i> , 2011, 19, 18842.	3.4	43
29	Optical Guidance Systems for Epidural Space Identification. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2017, 23, 371-379.	2.9	43
30	Cavity-Enhanced Lab-on-Fiber Technology: Toward Advanced Biosensors and Nano-Opto-Mechanical Active Devices. <i>ACS Photonics</i> , 2019, 6, 3271-3280.	6.6	43
31	An Intrusion Detection System for the Protection of Railway Assets Using Fiber Bragg Grating Sensors. <i>Sensors</i> , 2014, 14, 18268-18285.	3.8	42
32	Surface sensitivity of Rayleigh anomalies in metallic nanogratings. <i>Optics Express</i> , 2013, 21, 23531.	3.4	39
33	Nanoscale TiO ₂ -coated LPGs as radiation-tolerant humidity sensors for high-energy physics applications. <i>Optics Letters</i> , 2014, 39, 4128.	3.3	39
34	Photonic band-gap engineering in UV fiber gratings by the arc discharge technique. <i>Optics Express</i> , 2008, 16, 15332.	3.4	38
35	A protein-based biointerfacing route toward label-free immunoassays with long period gratings in transition mode. <i>Biosensors and Bioelectronics</i> , 2012, 31, 486-491.	10.1	38
36	Cryogenic-temperature profiling of high-power superconducting lines using local and distributed optical-fiber sensors. <i>Optics Letters</i> , 2015, 40, 4424.	3.3	38

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37	Excitation of Bloch Surface Waves on an Optical Fiber Tip. <i>Advanced Optical Materials</i> , 2018, 6, 1800477.	7.3	38
38	Triaxial Fiber Optic Magnetic Field Sensor for Magnetic Resonance Imaging. <i>Journal of Lightwave Technology</i> , 2017, 35, 3924-3933.	4.6	37
39	Opto-mechanical lab-on-fibre seismic sensors detected the Norcia earthquake. <i>Scientific Reports</i> , 2018, 8, 6680.	3.3	35
40	A Novel Optochemical Sensor Based on SnO_2 Sensitive Thin Film for ppm Ammonia Detection in Liquid Environment. <i>Journal of Lightwave Technology</i> , 2006, 24, 5000-5007.	4.6	31
41	Real-time dosimetry with radiochromic films. <i>Scientific Reports</i> , 2019, 9, 5307.	3.3	29
42	External Refractive Index Sensitivity of Weakly Tilted Fiber Bragg Gratings With Different Coating Thicknesses. <i>IEEE Sensors Journal</i> , 2008, 8, 1330-1336.	4.7	28
43	Nanostructured Metallo-Dielectric Quasi-Crystals: Towards Photonic-Plasmonic Resonance Engineering. <i>Advanced Functional Materials</i> , 2012, 22, 4389-4398.	14.9	28
44	Tailoring lab-on-fiber SERS optrodes towards biological targets of different sizes. <i>Sensors and Actuators B: Chemical</i> , 2021, 339, 129321.	7.8	28
45	Evidence of guided resonances in photonic quasicrystal slabs. <i>Physical Review B</i> , 2011, 84, .	3.2	27
46	Supersymmetry-Inspired Non-Hermitian Optical Couplers. <i>Scientific Reports</i> , 2015, 5, 8568.	3.3	26
47	A Fiber Bragg Grating Liquid Level Sensor Based on the Archimedes' Law of Buoyancy. <i>Journal of Lightwave Technology</i> , 2018, 36, 4936-4941.	4.6	26
48	Label-free fiber optic optrode for the detection of class C β -lactamases expressed by drug resistant bacteria. <i>Biomedical Optics Express</i> , 2017, 8, 5191.	2.9	25
49	Integrated Development of Chemoptical Fiber Nanosensors. <i>Current Analytical Chemistry</i> , 2008, 4, 296-315.	1.2	24
50	Thinned and micro-structured fibre Bragg gratings: towards new all-fibre high-sensitivity chemical sensors. <i>Journal of Optics</i> , 2005, 7, 734-741.	1.5	22
51	Structured Chirped Fiber Bragg Gratings. <i>Journal of Lightwave Technology</i> , 2008, 26, 1613-1625.	4.6	22
52	Not-lithographic fabrication of micro-structured fiber Bragg gratings evanescent wave sensors. <i>Optics Express</i> , 2009, 17, 1042.	3.4	22
53	A Time-Efficient Dip Coating Technique for the Deposition of Microgels onto the Optical Fiber Tip. <i>Fibers</i> , 2018, 6, 72.	4.0	22
54	Optimization Strategies for Responsivity Control of Microgel Assisted Lab-On-Fiber Optrodes. <i>Sensors</i> , 2018, 18, 1119.	3.8	22

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55	Chemical Detection in Water by Single-Walled Carbon Nanotubes-Based Optical Fiber Sensors. IEEE Sensors Journal, 2007, 7, 1004-1005.	4.7	21
56	Grating-coupling-based excitation of Bloch surface waves for lab-on-fiber optrodes. Optics Express, 2016, 24, 27771.	3.4	21
57	Smart Optical Catheters for Epidurals. Sensors, 2018, 18, 2101.	3.8	21
58	A novel method for EBT3 Gafchromic films read-out at high dose levels. Physica Medica, 2019, 61, 77-84.	0.7	21
59	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
60	Tuning efficiency and sensitivity of guided resonances in photonic crystals and quasi-crystals: a comparative study. Optics Express, 2010, 18, 17280.	3.4	20
61	Bacteriophage Adhesin-Coated Long-Period Grating-Based Sensor: Bacteria Detection Specificity. Journal of Lightwave Technology, 2016, 34, 4531-4536.	4.6	20
62	Fiber Optic Thermo-Hygrometers for Soil Moisture Monitoring. Sensors, 2017, 17, 1451.	3.8	20
63	Thermo-plasmonic lab-on-fiber optrodes. Optics and Laser Technology, 2020, 132, 106502.	4.6	20
64	Optical fiber technology enables smart needles for epidurals: an in-vivo swine study. Biomedical Optics Express, 2019, 10, 1351.	2.9	20
65	A novel Lab-on-Fiber Radiation Dosimeter for Ultra-high Dose Monitoring. Scientific Reports, 2018, 8, 17841.	3.3	18
66	Experimental evidence of guided-resonances in photonic crystals with aperiodically ordered supercells. Optics Letters, 2010, 35, 3946.	3.3	17
67	Novel Optochemical Sensors Based on Hollow Fibers and Single Walled Carbon Nanotubes. IEEE Photonics Technology Letters, 2006, 18, 2431-2433.	2.5	16
68	Insights into tunnelling rays: outperforming guided rays in fiber-optic sensing device. Optics Express, 2009, 17, 7630.	3.4	16
69	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
70	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
71	Guided resonances in photonic quasicrystals. Optics Express, 2009, 17, 6335-46.	3.4	15
72	Fiber Bragg Grating and Magnetic Shape Memory Alloy: Novel High-Sensitivity Magnetic Sensor. IEEE Sensors Journal, 2007, 7, 228-229.	4.7	13

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73	Lab-on-Fiber Plasmonic Probes for Ultrasound Detection: A Comparative Study. Journal of Lightwave Technology, 2016, 34, 5189-5198.	4.6	13
74	Opto-Mechanical Lab-on-Fiber Accelerometers. Journal of Lightwave Technology, 2020, 38, 1998-2009.	4.6	13
75	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
76	Guided resonances in photonic crystals with point-defected aperiodically-ordered supercells. Optics Express, 2009, 17, 19586.	3.4	11
77	Long-Term Temperature Monitoring in CMS Using Fiber Optic Sensors. IEEE Sensors Journal, 2012, 12, 3392-3398.	4.7	11
78	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
79	Stimuli-responsive hybrid microgels for controlled drug delivery: Sorafenib as a model drug. Journal of Applied Polymer Science, 2021, 138, 50147.	2.6	11
80	(INVITED)Development of custom Surface Plasmon Resonance Au biosensor for liver cancer biomarker detection. Results in Optics, 2021, 5, 100193.	2.0	10
81	(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
82	Sensitivity Characteristics Tuning in Tapered Long-Period Gratings by Nanocoatings. IEEE Photonics Technology Letters, 2007, 19, 1517-1519.	2.5	9
83	One Year of FOS Measurements in CMS Experiment at CERN. Physics Procedia, 2012, 37, 79-84.	1.2	9
84	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
85	Time Delay Measurements as Promising Technique for Tilted Fiber Bragg Grating Sensors Interrogation. IEEE Photonics Technology Letters, 2009, 21, 1752-1754.	2.5	8
86	Integrated Optoelectronic Devices Using Lab-on-Fiber Technology. Advanced Materials Technologies, 2022, 7, .	5.8	8
87	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
88	Self-assembled periodic patterns on the optical fiber tip by microsphere arrays. Proceedings of SPIE, 2015, , .	0.8	7
89	Detection of small DNA fragments by biolayer interferometry. Analytical Biochemistry, 2020, 607, 113898.	2.4	7
90	Nanosphere lithography for advanced all fiber Sers probes. Proceedings of SPIE, 2016, , .	0.8	6

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91	Radiation Sensitivity of Long Period Gratings written in B-Ge doped fiber under proton irradiation at CERN. , 2018, , .		6
92	Liquid Resin Infusion Process Validation through Fiber Optic Sensor Technology. Sensors, 2022, 22, 508.	3.8	6
93	Feasibility analysis of an ultrasound on line diagnostic approach for oral and bone surgery. Scientific Reports, 2022, 12, 905.	3.3	6
94	Design and Optimization of All-Dielectric Fluorescence Enhancing Metasurfaces: Towards Advanced Metasurface-Assisted Optodes. Biosensors, 2022, 12, 264.	4.7	6
95	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
96	Surface vs. bulk sensitivity of sensors based on Rayleigh anomalies in metallic nanogratings. , 2013, , .		5
97	Ultrasound waves in tumors via needle irradiation for precise medicine. Scientific Reports, 2022, 12, 6513.	3.3	5
98	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
99	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
100	Resonant hydrophones based on coated fiber Bragg gratings. Part I: numerical analysis. , 2011, , .		4
101	Porphyrin thin films on fiber optic probes through UV-light induced deposition. Optics and Laser Technology, 2013, 49, 279-283.	4.6	4
102	Lab on fiber by using the breath figure technique. Proceedings of SPIE, 2013, , .	0.8	4
103	Plasmonic Light Trapping in Thin-Film Solar Cells: Impact of Modeling on Performance Prediction. Materials, 2015, 8, 3648-3670.	2.9	4
104	Miniaturized optical fiber probe for prostate cancer screening. Biomedical Optics Express, 2021, 12, 5691.	2.9	4
105	Opto-mechanical lab-on-fibre seismic sensors detected the Norcia earthquake. , 2018, , .		4
106	A fiber optic sensors system for load monitoring on aircraft landing gears. , 2019, , .		4
107	Cavity enhanced lab-on-fiber optrode for ultra-sensitive pH monitoring. Sensors & Diagnostics, 2022, 1, 534-540.	3.8	4
108	Parametric study of guided resonances in octagonal photonic quasicrystals. Microwave and Optical Technology Letters, 2009, 51, 2737-2740.	1.4	3

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109	Design and analysis of photonic quasi-crystal hollow core fibers. Proceedings of SPIE, 2013, , .	0.8	3
110	Opto-mechanical lab-on-fiber accelerometers. , 2019, , .		3
111	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
112	Temperature and strain characterization of long period gratings in air guiding fiber. , 2013, , .		2
113	Ultrasensitive nanoprobe based on metallo-dielectric crystals integrated onto optical fiber tips using the breath figures technique. Proceedings of SPIE, 2013, , .	0.8	2
114	Lab on Fiber by Using the Breath Figure Technique. Springer Series in Surface Sciences, 2015, , 233-250.	0.3	2
115	Triaxial fiber optic magnetic field sensor for MRI applications. , 2016, , .		2
116	Analysis of thermo-plasmonic lab-on-fiber probes in liquid environments. Smart Materials and Structures, 2021, 30, 125007.	3.5	2
117	Absolute calibration for film dosimetry. International Journal of Modern Physics Conference Series, 2020, 50, 2060012.	0.7	2
118	Long Period Grating in hollow core fibers: Fabrication and characterization. , 2011, , .		1
119	A calibration method based on look-up-table for cryogenic temperature fiber Bragg grating sensors. Proceedings of SPIE, 2012, , .	0.8	1
120	Porphyry coated fiber optic probes for acid vapor detection. Proceedings of SPIE, 2013, , .	0.8	1
121	Optical fiber meta-tips: perspectives in sensing applications. Proceedings of SPIE, 2017, , .	0.8	1
122	Tapered multicore optical fiber probe for optogenetics. Results in Optics, 2021, 4, 100109.	2.0	1
123	High Sensitive Long Period Fiber Grating Biosensor for Cancer Biomarker Detection. , 2016, , .		1
124	An innovative extrinsic fiber optic sensor for real-time radiation monitoring. , 2021, , .		1
125	Correction to "Lab-on-a-Fiber Device for Trace Vapor TNT Explosive Detection: Comprehensive Performance Evaluation" [Apr 13 1127-1133]. Journal of Lightwave Technology, 2012, 30, 3068-3068.	4.6	0
126	Plasmonic-photonic resonances in nanostructured metallo-dielectric quasi-crystals: tuning and sensitivity analysis. Proceedings of SPIE, 2012, , .	0.8	0

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127	Special Issue on the Third Mediterranean Photonics Conference (MePhoCo2014). IEEE Photonics Journal, 2014, 6, 1-2.	2.0	0
128	Detection specificity studies of bacteriophage adhesin-coated long-period grating-based biosensor. Proceedings of SPIE, 2015, , .	0.8	0
129	Optical fiber meta-tips. Proceedings of SPIE, 2016, , .	0.8	0
130	Guest Editorial Special Issue on Selected Papers From the IEEE Sensors Conference 2014. IEEE Sensors Journal, 2016, 16, 3348-3348.	4.7	0
131	Lab-on-fiber SERS optrodes for biomedical applications. , 2021, , .		0
132	Coated Fiber Bragg Grating As High Sensitivity Hydrophone. , 2008, , .		0
133	RESONANT HYDROPHONES BASED ON COATED FIBER BRAGG GRATINGS FOR UNDERWATER MONITORING. , 2013, , 145-174.		0
134	Multiresponsive microgels integration onto lab-on-fiber devices. , 2019, , .		0
135	Lab-on-fiber SERS substrates for biomolecular recognition. , 2019, , .		0
136	Innovative lab on fiber dosimeters for ionizing radiation monitoring at ultra-high doses. , 2019, , .		0
137	Opto-mechanical Lab-on-fiber accelerometers. , 2021, , .		0
138	Lab-on-fiber SERS optrodes for biological target detection. , 2021, , .		0
139	Lab on Fiber Technology Towards Advanced and Multifunctional Point-of-Care Platforms for Precision Medicine. , 2023, , 504-527.		0