

Javier Madrigal

List of Publications by Year in descending order

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Version: 2024-02-01

58
papers

2,254
citations

361413

20
h-index

276875

41
g-index

58
all docs

58
docs citations

58
times ranked

2029
citing authors

#	ARTICLE	IF	CITATIONS
1	Coupled-core fiber Bragg gratings for low-cost sensing. Scientific Reports, 2022, 12, 1280.	3.3	13
2	Curvature, twist and pose measurements using fiber Bragg gratings in multi-core fiber: A comparative study between helical and straight core fibers. Sensors and Actuators A: Physical, 2021, 317, 112442.	4.1	25
3	Fiber Optic Shape Sensors: A comprehensive review. Optics and Lasers in Engineering, 2021, 139, 106508.	3.8	136
4	Effects of bonding on the performance of optical fiber strain sensors. Structural Control and Health Monitoring, 2021, 28, e2782.	4.0	10
5	Temperature-insensitive curvature sensor based on Bragg gratings written in strongly coupled multicore fiber. Optics Letters, 2021, 46, 3933.	3.3	12
6	Experimental study of the influence of FBG length on optical shape sensor performance. Optics and Lasers in Engineering, 2020, 126, 105878.	3.8	22
7	Regenerated Fiber Bragg Gratings in Multicore Fiber for Multi-Parameter Sensing. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-6.	2.9	12
8	Opto-Mechanical Interactions in Multi-Core Optical Fibers and Their Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-13.	2.9	13
9	Bend-Direction and Rotation Plastic Optical Fiber Sensor. Sensors, 2020, 20, 5405.	3.8	6
10	Strongly coupled multicore fiber with FBGs for multipoint and multiparameter sensing. Optical Fiber Technology, 2020, 58, 102315.	2.7	5
11	Twisting measurement and compensation of optical shape sensor based on spun multicore fiber. Mechanical Systems and Signal Processing, 2020, 140, 106700.	8.0	36
12	Twisting compensation of optical multicore fiber shape sensors for flexible medical instruments. , 2020, , .		6
13	High-voltage Sensor Based on Fiber Bragg Grating in Fibers with Electrodes. , 2020, , .		1
14	Current Sensor Based on a Fiber Bragg Grating Coated by Electroplated Magnetostrictive Material. , 2020, , .		2
15	Coherent and Incoherent Regimes for Microwave Photonics Fiber Sensing. , 2020, , .		0
16	Refractive Index and Temperature Sensing Using Inter-Core Crosstalk in Multicore Fibers. Journal of Lightwave Technology, 2019, 37, 4703-4709.	4.6	17
17	Effects of core position uncertainty on optical shape sensor accuracy. Measurement: Journal of the International Measurement Confederation, 2019, 139, 21-33.	5.0	19
18	Multi-Core Optical Fibers With Bragg Gratings as Shape Sensor for Flexible Medical Instruments. IEEE Sensors Journal, 2019, 19, 5878-5884.	4.7	136

#	ARTICLE	IF	CITATIONS
19	On the Use of Microwave Photonics Techniques for Novel Sensing Applications. , 2019, , .		2
20	Measurement uncertainty of multicore optical fiber sensors used to sense curvature and bending direction. Measurement: Journal of the International Measurement Confederation, 2019, 132, 35-46.	5.0	34
21	Measurement uncertainty of 7-core multicore fiber shape sensors. , 2019, , .		4
22	Sampled true time delay line operation by inscription of long period gratings in few-mode fibers. Optics Express, 2019, 27, 22787.	3.4	21
23	Multicore optical fiber shape sensors suitable for use under gamma radiation. Optics Express, 2019, 27, 29026.	3.4	19
24	Temperature-insensitive optical tilt sensor based on a single eccentric-core fiber Bragg grating. Optics Letters, 2019, 44, 5570.	3.3	19
25	Sub-cm Temperature Monitoring of 500 Weak Gratings Array Through Chirped Ultra-Short Light Pulses. , 2019, , .		0
26	Microwave Photonics for Optical Fiber Sensors. , 2019, , .		1
27	High-voltage fiber sensor based on fiber Bragg grating in poled fiber. , 2019, , .		1
28	Monitoring temperature and vibration in a long weak grating array with short-pulse generation using a compact gain-switching laser diode module. Optics Express, 2019, 27, 38661.	3.4	6
29	Microwave Photonics Filtering Interrogation Technique Under Coherent Regime For Hot Spot Detection on a Weak FBGs Array. Journal of Lightwave Technology, 2018, 36, 1039-1045.	4.6	17
30	Fast Incoherent OFDR Interrogation of FBG Arrays Using Sparse Radio Frequency Responses. Journal of Lightwave Technology, 2018, 36, 4393-4400.	4.6	8
31	Long Period Gratings in Multicore Optical Fibers for Directional Curvature Sensor Implementation. Journal of Lightwave Technology, 2018, 36, 1063-1068.	4.6	92
32	Few-mode fiber true time delay lines for distributed radiofrequency signal processing. Optics Express, 2018, 26, 25761.	3.4	20
33	Refractive index and temperature sensor based on TFBCs in multicore fiber. , 2018, , .		1
34	Partially Coated Long Period Fiber Bragg Gratings in Multicore Optical Fibers. , 2018, , .		0
35	Opto-Mechanical Point Sensing in a Multi-Core Fiber. , 2018, , .		2
36	Tilted Fiber Bragg Gratings for Selective Coupling in a Multicore Optical Fiber. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
37	Fast Interrogation of Equally-Spaced Arrays of Fiber Bragg Gratings Using Sparse Incoherent OFDR. , 2018, , .		1
38	Spatial Division Multiplexed Microwave Signal processing by selective grating inscription in homogeneous multicore fibers. Scientific Reports, 2017, 7, 41727.	3.3	65
39	Microwave Photonics for Optical Sensors. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 327-339.	2.9	98
40	Directional curvature sensor based on long period gratings in multicore optical fiber. Proceedings of SPIE, 2017, , .	0.8	3
41	Microwave photonics filtering interrogation technique under coherent regime for hot spot detection on cascaded FBG fiber. Proceedings of SPIE, 2017, , .	0.8	0
42	Phase modulation to intensity modulation conversion for sensitive FBG sensor interrogation. Proceedings of SPIE, 2017, , .	0.8	1
43	Microwave Photonic Filtering for Interrogating FBG-Based Multicore Fiber Curvature Sensor. IEEE Photonics Technology Letters, 2017, 29, 1707-1710.	2.5	17
44	Multiplexing FBG sensors combining microwave photonics and phase modulation. , 2017, , .		1
45	FBGs based multicore fiber curvature sensor interrogation using microwave photonics filtering techniques. , 2017, , .		0
46	Characterization of a FBG sensor interrogation system based on a mode-locked laser scheme. Optics Express, 2017, 25, 24650.	3.4	12
47	Tilted fiber Bragg gratings in multicore optical fibers for optical sensing. Optics Letters, 2017, 42, 1460.	3.3	33
48	Multicore fiber-Bragg-grating-based directional curvature sensor interrogated by a broadband source with a sinusoidal spectrum. Optics Letters, 2017, 42, 3710.	3.3	41
49	Interrogation of a Sensor Array of Identical Weak FBGs Using Dispersive Incoherent OFDR. IEEE Photonics Technology Letters, 2016, 28, 1154-1156.	2.5	22
50	[INVITED] Cascade FBGs distributed sensors interrogation using microwave photonics filtering techniques. Optics and Laser Technology, 2016, 77, 144-150.	4.6	10
51	Reconfigurable Radio Access Networks Using Multicore Fibers. IEEE Journal of Quantum Electronics, 2016, 52, 1-7.	1.9	379
52	Multipoint Two-Dimensional Curvature Optical Fiber Sensor Based on a Nontwisted Homogeneous Four-Core Fiber. Journal of Lightwave Technology, 2015, 33, 2445-2450.	4.6	95
53	An Interrogation Technique of FBG Cascade Sensors Using Wavelength to Radio-Frequency Delay Mapping. Journal of Lightwave Technology, 2015, 33, 2222-2227.	4.6	31
54	Long Weak FBG Sensor Interrogation Using Microwave Photonics Filtering Technique. IEEE Photonics Technology Letters, 2014, 26, 2039-2042.	2.5	29

#	ARTICLE	IF	CITATIONS
55	Microwave Photonic Signal Processing. Journal of Lightwave Technology, 2013, 31, 571-586.	4.6	494
56	Long fiber Bragg grating sensor interrogation using discrete-time microwave photonic filtering techniques. Optics Express, 2013, 21, 28175.	3.4	56
57	Packaged Optical Sensors Based on Regenerated Fiber Bragg Gratings for High Temperature Applications. IEEE Sensors Journal, 2012, 12, 107-112.	4.7	100
58	Low-Loss Photonic Crystal Fiber Interferometers for Sensor Networks. Journal of Lightwave Technology, 2010, 28, 3542-3547.	4.6	48