

Johannes Roths

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

46
papers

485
citations

10
h-index

20
g-index

60
ext. papers

605
ext. citations

3.2
avg, IF

3.61
L-index

#	Paper	IF	Citations
46	Fiber Bragg Sensors Embedded in Cast Aluminum Parts: Axial Strain and Temperature Response. <i>Sensors</i> , 2021 , 21,	3.8	5
45	Regenerated Fibre Bragg Gratings: A critical assessment of more than 20 years of investigations. <i>Optics and Laser Technology</i> , 2021 , 134, 106650	4.2	8
44	In-Situ High Temperature and Large Strain Monitoring During a Copper Casting Process Based on Regenerated Fiber Bragg Grating Sensors. <i>Journal of Lightwave Technology</i> , 2021 , 1-1	4	1
43	Transition from purely elastic to viscoelastic behavior of silica optical fibers at high temperatures characterized using regenerated Bragg gratings. <i>Optics Express</i> , 2020 , 28, 7323-7340	3.3	4
42	Early Detection of Cartilage Degeneration: A Comparison of Histology, Fiber Bragg Grating-Based Micro-Indentation, and Atomic Force Microscopy-Based Nano-Indentation. <i>International Journal of Molecular Sciences</i> , 2020 , 21,	6.3	9
41	High-Temperature Profile Monitoring in Gas Turbine Exhaust-Gas Diffusers with Six-Point Fiber-Optic Sensor Array. <i>International Journal of Turbomachinery, Propulsion and Power</i> , 2020 , 5, 25	1	4
40	Strain-Independent Temperature Measurements with Surface-Glued Polarization-Maintaining Fiber Bragg Grating Sensor Elements. <i>Sensors</i> , 2019 , 19,	3.8	5
39	In-situ strain measurements in the plastic deformation regime inside casted parts using fibre-optical strain sensors. <i>Production Engineering</i> , 2019 , 13, 351-360	1.9	2
38	Performance-enhanced optical fiber hydrogen sensors based on WO ₃ -Pd ₂ Pt-Pt composite film with controlled optical heating. <i>Optical Fiber Technology</i> , 2019 , 52, 101979	2.4	4
37	Investigations of Different Ion Intercalations on the Performance of FBG Hydrogen Sensors Based on Pt/MoO. <i>Sensors</i> , 2019 , 19,	3.8	2
36	Fiber-Optic Multipoint Sensor System with Low Drift for the Long-Term Monitoring of High-Temperature Distributions in Chemical Reactors. <i>Sensors</i> , 2019 , 19,	3.8	10
35	A Three-Dimensional-FEM Model With Experimentally Determined Material Parameters of an FBG Sensor Element in a Panda-Type Fiber. <i>Journal of Lightwave Technology</i> , 2018 , 36, 1076-1083	4	7
34	Fiber Optic Measurement System for Fresnel Reflection Sensing: Calibration, Uncertainty, and Exemplary Application in Temperature-Modulated Isothermal Polymer Curing. <i>Journal of Lightwave Technology</i> , 2018 , 36, 939-945	4	9
33	Iterative matrix algorithm for high precision temperature and force decoupling in multi-parameter FBG sensing. <i>Optics Express</i> , 2018 , 26, 12092	3.3	7
32	Regenerated Bragg Grating Sensor Array for Temperature Measurements During an Aluminum Casting Process. <i>IEEE Sensors Journal</i> , 2018 , 18, 5352-5360	4	15
31	Multipoint high temperature sensing with regenerated fiber Bragg gratings 2018 ,		4
30	Fabrication of locally micro-structured fiber Bragg gratings by fs-laser machining. <i>Applied Physics A: Materials Science and Processing</i> , 2018 , 124, 1	2.6	2

29	Iterative matrix algorithm for high precision temperature and force decoupling in multi-parameter FBG sensing. <i>Optics Express</i> , 2018 , 26, 12092-12105	3.3	2
28	In-situ Raman investigation of optical fiber glass structural changes at high temperature 2017 ,		2
27	Raman microstructural investigation of optical fiber at elevated temperature. <i>Optical Engineering</i> , 2017 , 56, 1	1.1	51
26	Total Temperature Measurement of Fast Air Streams With Fiber-Optic Bragg Grating Sensors. <i>IEEE Sensors Journal</i> , 2016 , 16, 6596-6603	4	4
25	. <i>Journal of Lightwave Technology</i> , 2016 , 34, 4557-4563	4	11
24	Regenerated Bragg Gratings in Panda Fibers for Simultaneous Temperature and Force Measurements at High Temperatures. <i>Journal of Lightwave Technology</i> , 2016 , 34, 4550-4556	4	12
23	Temperature Dependence of Glue-Induced Birefringence in Surface-Attached FBG Strain Sensors. <i>Journal of Lightwave Technology</i> , 2016 , 34, 1220-1227	4	9
22	Strain Measurement in Aluminium Alloy during the Solidification Process Using Embedded Fibre Bragg Gratings. <i>Sensors</i> , 2016 , 16,	3.8	8
21	Nonlinear temperature dependence of glue-induced birefringence in polarization maintaining FBG sensors 2016 ,		2
20	Iterative matrix inversion technique for simultaneous strain and temperature sensing in an extended temperature range 2016 ,		1
19	Fiber Bragg gratings in hydrogen-loaded photosensitive fiber with two regeneration regimes. <i>Optics Communications</i> , 2014 , 313, 128-133	2	14
18	Gauge factors of fibre Bragg grating strain sensors in different types of optical fibres. <i>Measurement Science and Technology</i> , 2013 , 24, 094007	2	20
17	FBG inscription in non-hydrogenated SMF28 fiber with a ns Q-switched Nd:VO4laser at 213 nm 2013 ,		1
16	Evidence for a motor somatotopy in the cerebellar dentate nucleus--an fMRI study in humans. <i>Human Brain Mapping</i> , 2012 , 33, 2741-9	5.9	43
15	Polarization dependence of the strain sensitivity of fiber Bragg gratings inscribed in highly birefringent optical fibers 2012 ,		3
14	Herstellung von Faser-Bragg-Gitter in hoch-doppelbrechenden Glasfasern. <i>TM Technisches Messen</i> , 2012 , 79, 52-59	0.7	1
13	Evidence for a motor and a non-motor domain in the human dentate nucleus--an fMRI study. <i>NeuroImage</i> , 2011 , 54, 2612-22	7.9	79
12	High-precision thermal strain measurements using surface-mounted fiber Bragg grating sensors 2010 ,		4

11	Comparison of transverse load sensitivities of fibre Bragg gratings in different types of optical fibres 2010 ,		3
10	Strain calibration of optical FBG-based strain sensors 2010 ,		8
9	OP2 - Determination of the Effective Refractive Index of Various Single Mode Fibres for Fibre Bragg Grating Sensor Applications 2009 ,		3
8	Determination of strain sensitivity of free fiber Bragg gratings 2008 ,		5
7	Vergleich zwischen optischen Faser-Bragg-Gitter-Dehnungssensoren und elektrischen Dehnungsmessstreifen Intercomparison of Optical FBG-based Strain Sensors and Resistive Strain Gages. <i>TM Technisches Messen</i> , 2008 , 75, 647-654	0.7	5
6	Calibration of Fiber Bragg Cryogenic Temperature Sensors 2006 , TuE81		5
5	New modulation technique for unambiguous measurements of phase changes in diode laser interferometers 1997 , 3098, 325		6
4	Interferometric displacement measurements performed with a self-mixing microinterferometer 1997 , 3098, 411		4
3	Four-laser airborne infrared spectrometer for atmospheric trace gas measurements. <i>Applied Optics</i> , 1996 , 35, 7075-84	1.7	28
2	Development of a laser in situ airborne hygrometer (LISAH). <i>Infrared Physics and Technology</i> , 1996 , 37, 33-38	2.7	6
1	Lifetime and collisional depopulation of the metastable 5D 3/2-state of Yb+. <i>Zeitschrift für Physik D-Atoms Molecules and Clusters</i> , 1988 , 8, 235-237		46