Johannes Roths

List of Publications by Citations

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	Evidence for a motor and a non-motor domain in the human dentate nucleus--an fMRI study. *NeuroImage*, **2011**, 54, 2612-22	7.9	79
45	Raman microstructural investigation of optical fiber at elevated temperature. *Optical Engineering*, **2017**, 56, 1	1.1	51
44	Lifetime and collisional depopulation of the metastable 5D 3/2-state of Yb+. *Zeitschrift F Physik D-Atoms Molecules and Clusters*, **1988**, 8, 235-237		46
43	Evidence for a motor somatotopy in the cerebellar dentate nucleus--an FMRI study in humans. *Human Brain Mapping*, **2012**, 33, 2741-9	5.9	43
42	Four-laser airborne infrared spectrometer for atmospheric trace gas measurements. *Applied Optics*, **1996**, 35, 7075-84	1.7	28
41	Gauge factors of fibre Bragg grating strain sensors in different types of optical fibres. *Measurement Science and Technology*, **2013**, 24, 094007	2	20
40	Regenerated Bragg Grating Sensor Array for Temperature Measurements During an Aluminum Casting Process. *IEEE Sensors Journal*, **2018**, 18, 5352-5360	4	15
39	Fiber Bragg gratings in hydrogen-loaded photosensitive fiber with two regeneration regimes. *Optics Communications*, **2014**, 313, 128-133	2	14
38	Regenerated Bragg Gratings in Panda Fibers for Simultaneous Temperature and Force Measurements at High Temperatures. *Journal of Lightwave Technology*, **2016**, 34, 4550-4556	4	12
37	. *Journal of Lightwave Technology*, **2016**, 34, 4557-4563	4	11
36	Fiber-Optic Multipoint Sensor System with Low Drift for the Long-Term Monitoring of High-Temperature Distributions in Chemical Reactors. *Sensors*, **2019**, 19,	3.8	10
35	Fiber Optic Measurement System for Fresnel Reflection Sensing: Calibration, Uncertainty, and Exemplary Application in Temperature-Modulated Isothermal Polymer Curing. *Journal of Lightwave Technology*, **2018**, 36, 939-945	4	9
34	Temperature Dependence of Glue-Induced Birefringence in Surface-Attached FBG Strain Sensors. *Journal of Lightwave Technology*, **2016**, 34, 1220-1227	4	9
33	Early Detection of Cartilage Degeneration: A Comparison of Histology, Fiber Bragg Grating-Based Micro-Indentation, and Atomic Force Microscopy-Based Nano-Indentation. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	9
32	Strain calibration of optical FBG-based strain sensors **2010**,		8
31	Strain Measurement in Aluminium Alloy during the Solidification Process Using Embedded Fibre Bragg Gratings. *Sensors*, **2016**, 16,	3.8	8
30	Regenerated Fibre Bragg Gratings: A critical assessment of more than 20 years of investigations. *Optics and Laser Technology*, **2021**, 134, 106650	4.2	8

29	A Three-Dimensional-FEM Model With Experimentally Determined Material Parameters of an FBG Sensor Element in a Panda-Type Fiber. *Journal of Lightwave Technology*, **2018**, 36, 1076-1083	4	7
28	Iterative matrix algorithm for high precision temperature and force decoupling in multi-parameter FBG sensing. *Optics Express*, **2018**, 26, 12092	3.3	7
27	New modulation technique for unambiguous measurements of phase changes in diode laser interferometers **1997**, 3098, 325		6
26	Development of a laser in situ airborne hygrometer (LISAH). *Infrared Physics and Technology*, **1996**, 37, 33-38	2.7	6
25	Strain-Independent Temperature Measurements with Surface-Glued Polarization-Maintaining Fiber Bragg Grating Sensor Elements. *Sensors*, **2019**, 19,	3.8	5
24	Determination of strain sensitivity of free fiber Bragg gratings **2008**,		5
23	Vergleich zwischen optischen Faser-Bragg-Gitter-Dehnungssensoren und elektrischen Dehnungsmessstreifen Intercomparison of Optical FBG-based Strain Sensors and Resistive Strain Gages. *TM Technisches Messen*, **2008**, 75, 647-654	0.7	5
22	Calibration of Fiber Bragg Cryogenic Temperature Sensors **2006**, TuE81		5
21	Fiber Bragg Sensors Embedded in Cast Aluminum Parts: Axial Strain and Temperature Response. *Sensors*, **2021**, 21,	3.8	5
20	Total Temperature Measurement of Fast Air Streams With Fiber-Optic Bragg Grating Sensors. *IEEE Sensors Journal*, **2016**, 16, 6596-6603	4	4
19	Performance-enhanced optical fiber hydrogen sensors based on WO3-Pd2Pt-Pt composite film with controlled optical heating. *Optical Fiber Technology*, **2019**, 52, 101979	2.4	4
18	High-precision thermal strain measurements using surface-mounted fiber Bragg grating sensors **2010**,		4
17	Interferometric displacement measurements performed with a self-mixing microinterferometer **1997**, 3098, 411		4
16	Multipoint high temperature sensing with regenerated fiber Bragg gratings **2018**,		4
15	Transition from purely elastic to viscoelastic behavior of silica optical fibers at high temperatures characterized using regenerated Bragg gratings. *Optics Express*, **2020**, 28, 7323-7340	3.3	4
14	High-Temperature Profile Monitoring in Gas Turbine Exhaust-Gas Diffusors with Six-Point Fiber-Optic Sensor Array. *International Journal of Turbomachinery, Propulsion and Power*, **2020**, 5, 25	1	4
13	Comparison of transverse load sensitivities of fibre Bragg gratings in different types of optical fibres **2010**,		3
12	Polarization dependence of the strain sensitivity of fiber Bragg gratings inscribed in highly birefringent optical fibers **2012**,		3

11	OP2 - Determination of the Effective Refractive Index of Various Single Mode Fibres for Fibre Bragg Grating Sensor Applications **2009**,		3
10	In-situ Raman investigation of optical fiber glass structural changes at high temperature **2017**,		2
9	In-situ strain measurements in the plastic deformation regime inside casted parts using fibre-optical strain sensors. *Production Engineering*, **2019**, 13, 351-360	1.9	2
8	Nonlinear temperature dependence of glue-induced birefringence in polarization maintaining FBG sensors **2016**,		2
7	Investigations of Different Ion Intercalations on the Performance of FBG Hydrogen Sensors Based on Pt/MoO. *Sensors*, **2019**, 19,	3.8	2
6	Fabrication of locally micro-structured fiber Bragg gratings by fs-laser machining. *Applied Physics A: Materials Science and Processing*, **2018**, 124, 1	2.6	2
5	Iterative matrix algorithm for high precision temperature and force decoupling in multi-parameter FBG sensing. *Optics Express*, **2018**, 26, 12092-12105	3.3	2
4	FBG inscription in non-hydrogenated SMF28 fiber with a ns Q-switched Nd:VO4laser at 213 nm **2013**,		1
3	Herstellung von Faser-Bragg-Gitter in hoch-doppelbrechenden Glasfasern. *TM Technisches Messen*, **2012**, 79, 52-59	0.7	1
2	Iterative matrix inversion technique for simultaneous strain and temperature sensing in an extended temperature range **2016**,		1
1	In-Situ High Temperature and Large Strain Monitoring During a Copper Casting Process Based on Regenerated Fiber Bragg Grating Sensors. *Journal of Lightwave Technology*, **2021**, 1-1	4	1