

Francis Berghmans

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7574566/publications.pdf>

Version: 2024-02-01

289
papers

3,930
citations

117571

34
h-index

197736

49
g-index

290
all docs

290
docs citations

290
times ranked

2162
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly birefringent microstructured fibers with enhanced sensitivity to hydrostatic pressure. <i>Optics Express</i> , 2010, 18, 15113.	1.7	137
2	Temperature monitoring of nuclear reactor cores with multiplexed fiber Bragg grating sensors. <i>Optical Engineering</i> , 2002, 41, 1246.	0.5	88
3	Radiation-tolerant Raman distributed temperature monitoring system for large nuclear infrastructures. <i>IEEE Transactions on Nuclear Science</i> , 2005, 52, 2689-2694.	1.2	88
4	Transversal Load Sensing With Fiber Bragg Gratings in Microstructured Optical Fibers. <i>IEEE Photonics Technology Letters</i> , 2009, 21, 6-8.	1.3	83
5	High total dose radiation effects on temperature sensing fiber Bragg gratings. <i>IEEE Photonics Technology Letters</i> , 1999, 11, 1159-1161.	1.3	78
6	Point-by-point fiber Bragg grating inscription in free-standing step-index and photonic crystal fibers using near-IR femtosecond laser. <i>Optics Letters</i> , 2010, 35, 1647.	1.7	78
7	Microstructured Optical Fiber Sensors Embedded in a Laminate Composite for Smart Material Applications. <i>Sensors</i> , 2011, 11, 2566-2579.	2.1	70
8	Proton- and Gamma-Induced Effects on Erbium-Doped Optical Fibers. <i>IEEE Transactions on Nuclear Science</i> , 2007, 54, 2426-2434.	1.2	68
9	Dose-rate dependencies in gamma-irradiated fiber Bragg grating filters. <i>IEEE Transactions on Nuclear Science</i> , 2002, 49, 2874-2878.	1.2	65
10	Challenges in the fabrication of fibre Bragg gratings in silica and polymer microstructured optical fibres. <i>Laser and Photonics Reviews</i> , 2014, 8, 27-52.	4.4	63
11	A novel fast phase correlation algorithm for peak wavelength detection of fiber Bragg grating sensors. <i>Optics Express</i> , 2014, 22, 7099.	1.7	63
12	Temperature and pressure sensitivities of the highly birefringent photonic crystal fiber with core asymmetry. <i>Applied Physics B: Lasers and Optics</i> , 2005, 81, 325-331.	1.1	62
13	Aerospace-grade surface mounted optical fibre strain sensor for structural health monitoring on composite structures evaluated against in-flight conditions. <i>Smart Materials and Structures</i> , 2019, 28, 065008.	1.8	60
14	Radiation-hardening techniques of dedicated optical fibres used in plasma diagnostic systems in ITER. <i>Journal of Nuclear Materials</i> , 2004, 329-333, 1456-1460.	1.3	59
15	Experimental and theoretical investigations of birefringent holey fibers with a triple defect. <i>Applied Optics</i> , 2005, 44, 2652.	2.1	59
16	Behavior of fibre Bragg gratings under high total dose gamma radiation. <i>IEEE Transactions on Nuclear Science</i> , 2000, 47, 688-692.	1.2	58
17	Large-mode-area photonic crystal fiber with double lattice constant structure and low bending loss. <i>Optics Express</i> , 2011, 19, 22628.	1.7	58
18	Extremely large-mode-area photonic crystal fibre with low bending loss. <i>Optics Express</i> , 2010, 18, 15408.	1.7	56

#	ARTICLE	IF	CITATIONS
19	Fiber Bragg Gratings in Germanium-Doped Highly Birefringent Microstructured Optical Fibers. IEEE Photonics Technology Letters, 2008, 20, 554-556.	1.3	52
20	Effect of ionizing radiation on the properties of arc-induced long-period fiber gratings. Applied Optics, 2005, 44, 6258.	2.1	50
21	Shear stress sensing with Bragg grating-based sensors in microstructured optical fibers. Optics Express, 2013, 21, 20404.	1.7	46
22	Multi-component force sensor based on multiplexed fibre Bragg grating strain sensors. Measurement Science and Technology, 2001, 12, 810-813.	1.4	43
23	Transient optical absorption in pulsed-X-ray-irradiated pure-silica-core optical fibers: Influence of self-trapped holes. Journal of Non-Crystalline Solids, 2006, 352, 2637-2642.	1.5	42
24	Geometrical study of a hexagonal lattice photonic crystal fiber for efficient femtosecond laser grating inscription. Optics Express, 2011, 19, 7705.	1.7	42
25	Effect of gamma neutron nuclear reactor radiation on the properties of Bragg gratings written in photosensitive Ge-doped optical fiber. Nuclear Instruments & Methods in Physics Research B, 2002, 187, 79-86.	0.6	41
26	Bragg Grating Inscription in GeO -Doped Microstructured Optical Fibers. Journal of Lightwave Technology, 2010, 28, 1459-1467.	2.7	41
27	Experimental investigations of bending loss oscillations in large mode area photonic crystal fibers. Optics Express, 2007, 15, 13547.	1.7	40
28	Reduction of the radiation-induced absorption in hydrogenated pure silica core fibres irradiated in situ with β -rays. Journal of Non-Crystalline Solids, 2007, 353, 466-472.	1.5	39
29	Refractive-index changes caused by proton radiation in silicate optical glasses. Applied Optics, 2002, 41, 678.	2.1	38
30	Response of FBGs in Microstructured and Bow Tie Fibers Embedded in Laminated Composite. IEEE Photonics Technology Letters, 2009, 21, 1290-1292.	1.3	37
31	Control Over the Pressure Sensitivity of Bragg Grating-Based Sensors in Highly Birefringent Microstructured Optical Fibers. IEEE Photonics Technology Letters, 2012, 24, 527-529.	1.3	37
32	Poly(D,L-Lactic Acid) (PDLLA) Biodegradable and Biocompatible Polymer Optical Fiber. Journal of Lightwave Technology, 2019, 37, 1916-1923.	2.7	36
33	Gamma radiation effects in Er-doped silica fibers. IEEE Transactions on Nuclear Science, 2004, 51, 2763-2769.	1.2	35
34	An Introduction to Radiation Effects on Optical Components and Fiber Optic Sensors. , 2008, , 127-165.		35
35	Stabilization of Fiber Bragg Gratings Against Gamma Radiation. IEEE Transactions on Nuclear Science, 2008, 55, 2205-2212.	1.2	35
36	FBGs written in specialty fiber for high pressure/high temperature measurement. Optics Express, 2017, 25, 17936.	1.7	35

#	ARTICLE	IF	CITATIONS
37	Data transparent reconfigurable optical interconnections using polarization switching in VCSEL's induced by optical injection. IEEE Photonics Technology Letters, 1999, 11, 985-987.	1.3	34
38	Long-term radiation effects on fibre Bragg grating temperature sensors in a low flux nuclear reactor. Measurement Science and Technology, 2004, 15, 1506-1511.	1.4	34
39	Fibre-optic gamma-flux monitoring in a fission reactor by means of Cerenkov radiation. Measurement Science and Technology, 2007, 18, 3257-3262.	1.4	34
40	Ultra flat supercontinuum generation in silicate dual core microstructured fiber. Laser Physics Letters, 2009, 6, 575-581.	0.6	34
41	Birefringent photonic crystal fibers with zero polarimetric sensitivity to temperature. Applied Physics B: Lasers and Optics, 2009, 94, 635-640.	1.1	34
42	Measurements of polarimetric sensitivity to temperature in birefringent holey fibres. Measurement Science and Technology, 2007, 18, 3055-3060.	1.4	33
43	Radiation assessment of hydrogen-loaded aluminium-coated pure silica core fibres for ITER plasma diagnostic applications. Fusion Engineering and Design, 2007, 82, 2451-2455.	1.0	33
44	Identification of modal strains using sub-microstrain FBG data and a novel wavelength-shift detection algorithm. Mechanical Systems and Signal Processing, 2017, 86, 58-74.	4.4	33
45	Round-robin evaluation of optical fibres for plasma diagnostics. Fusion Engineering and Design, 2001, 56-57, 917-921.	1.0	29
46	Radiation Sensitivity of EDFAs Based on Highly Er-Doped Fibers. Journal of Lightwave Technology, 2009, 27, 1540-1545.	2.7	29
47	Practicalities of BVID detection on aerospace-grade CFRP materials with optical fibre sensors. Composite Structures, 2021, 259, 113243.	3.1	29
48	Effect of the Fiber Coating on the Radiation Sensitivity of Type I FBGs. IEEE Photonics Technology Letters, 2008, 20, 1802-1804.	1.3	28
49	Photonic Crystal Fiber With Large Mode Area and Characteristic Bending Properties. IEEE Photonics Technology Letters, 2012, 24, 1409-1411.	1.3	28
50	Influence of Fiber Bragg Grating Spectrum Degradation on the Performance of Sensor Interrogation Algorithms. Sensors, 2014, 14, 24258-24277.	2.1	28
51	In situ measurement of refractive index changes induced by gamma radiation in germanosilicate fibers. IEEE Photonics Technology Letters, 2003, 15, 1428-1430.	1.3	27
52	Sensing characteristics of the rocking filters in microstructured fibers optimized for hydrostatic pressure measurements. Optics Express, 2012, 20, 23320.	1.7	27
53	Disbond monitoring in adhesive joints using shear stress optical fiber sensors. Smart Materials and Structures, 2014, 23, 075006.	1.8	27
54	Microstructured optical fiber Bragg grating as an internal three-dimensional strain sensor for composite laminates. Smart Materials and Structures, 2015, 24, 055003.	1.8	27

#	ARTICLE	IF	CITATIONS
55	Phase and group modal birefringence of triple-defect photonic crystal fibres. Journal of Optics, 2005, 7, 763-766.	1.5	26
56	Benchmarking of deformation and vibration measurement techniques for nuclear fuel pins. Measurement: Journal of the International Measurement Confederation, 2013, 46, 3647-3653.	2.5	26
57	Operational modal analysis of flow-induced vibration of nuclear fuel rods in a turbulent axial flow. Nuclear Engineering and Design, 2015, 284, 19-26.	0.8	25
58	Distributed Hydrostatic Pressure Measurement Using Phase-OTDR in a Highly Birefringent Photonic Crystal Fiber. Journal of Lightwave Technology, 2019, 37, 4496-4500.	2.7	25
59	Origin of the radiation-induced OH vibration band in polymer-coated optical fibers irradiated in a nuclear fission reactor. IEEE Transactions on Nuclear Science, 2002, 49, 2852-2856.	1.2	24
60	Evaluation of three different optical fibre temperature sensor types for application in gamma radiation environments. IEEE Transactions on Nuclear Science, 1998, 45, 1537-1542.	1.2	23
61	Measurements of sensitivity to hydrostatic pressure and temperature in highly birefringent photonic crystal fibers. Optical and Quantum Electronics, 2007, 39, 481-489.	1.5	23
62	Radiation-resistant WDM optical link for thermonuclear fusion reactor instrumentation. IEEE Transactions on Nuclear Science, 2001, 48, .	1.2	22
63	Influence of Fiber Orientation on Femtosecond Bragg Grating Inscription in Pure Silica Microstructured Optical Fibers. IEEE Photonics Technology Letters, 2011, 23, 1832-1834.	1.3	22
64	A global assessment of barely visible impact damage for CFRP sub-components with FBG-based sensors. Composite Structures, 2021, 272, 114025.	3.1	22
65	Analytical evaluation of bending loss oscillations in photonic crystal fibers. Optics Communications, 2007, 269, 261-270.	1.0	21
66	Temperature-insensitive polarimetric vibration sensor based on HiBi microstructured optical fiber. Applied Optics, 2012, 51, 6130.	0.9	21
67	Vibration Monitoring Using Fiber Optic Sensors in a Lead-Bismuth Eutectic Cooled Nuclear Fuel Assembly. Sensors, 2016, 16, 571.	2.1	21
68	Toward the development of radiation-tolerant instrumentation data links for thermonuclear fusion experiments. IEEE Transactions on Nuclear Science, 2002, 49, 2879-2887.	1.2	20
69	Radiation hardness of fiber optic sensors for monitoring and remote handling applications in nuclear environments. , 1999, 3538, 28.		19
70	Chemical composition fiber gratings in a high mixed gamma neutron radiation field. IEEE Transactions on Nuclear Science, 2006, 53, 1607-1613.	1.2	19
71	Gamma radiation induced loss in erbium doped optical fibers. Journal of Non-Crystalline Solids, 2007, 353, 477-480.	1.5	19
72	Dependence of the POR and NBOHC defects as function of the dose in hydrogen-treated and untreated KU1 glass fibers. IEEE Transactions on Nuclear Science, 2003, 50, 2024-2029.	1.2	18

#	ARTICLE	IF	CITATIONS
73	Core Versus Cladding Effects of Proton Irradiation on Erbium-Doped Optical Fiber: Micro-Luminescence Study. IEEE Transactions on Nuclear Science, 2008, 55, 2223-2228.	1.2	18
74	Low-Loss Patch Cords by Effective Splicing of Various Photonic Crystal Fibers With Standard Single Mode Fiber. Journal of Lightwave Technology, 2011, 29, 2940-2946.	2.7	18
75	Design of a radiation-hard optical fiber Bragg grating temperature sensor. , 1999, , .		16
76	SCKÂ-CEN gamma irradiation facilities for radiation tolerance assessment. , 0, , .		16
77	Gamma dosimetry using red 4034 Harwell dosimeters in mixed fission neutrons and gamma environments. IEEE Transactions on Nuclear Science, 2005, 52, 505-509.	1.2	15
78	Highly birefringent soft glass rectangular photonic crystal fibers with elliptical holes. Applied Physics B: Lasers and Optics, 2010, 99, 13-17.	1.1	15
79	Dedicated optical fibers for dosimetry based on radiation-induced attenuation: experimental results. , 1999, , .		14
80	Radiation tolerance qualification for maintenance tasks in the future fusion reactors: from fibre-optic components to robust data links. Fusion Engineering and Design, 2003, 69, 191-195.	1.0	14
81	Comparative Study of Pulsed X-Ray and γ -Ray Radiation-Induced Effects in Pure-Silica-Core Optical Fibers. IEEE Transactions on Nuclear Science, 2006, 53, 1756-1763.	1.2	14
82	Thermal effects on the photoelastic coefficient of polymer optical fibers. Optics Letters, 2016, 41, 2517.	1.7	14
83	Design and two-photon direct laser writing of low-loss waveguides, tapers and S-bends. JPhys Photonics, 2021, 3, 045001.	2.2	14
84	Design and Analysis of a Next-Generation Wide Field-of-View Earth Radiation Budget Radiometer. Remote Sensing, 2020, 12, 425.	1.8	14
85	High total dose irradiation experiments on fiber optic components for fusion reactor environments. , 1999, , .		13
86	Photonic crystal fibers with material anisotropy. Optical and Quantum Electronics, 2005, 37, 253-264.	1.5	13
87	Photonic crystal fibers: new opportunities for sensing. Proceedings of SPIE, 2007, , .	0.8	13
88	Design and Assessment of a Circuit and Layout Level Radiation Hardened CMOS VCSEL Driver. IEEE Transactions on Nuclear Science, 2007, 54, 1055-1060.	1.2	13
89	Development of flexible pressure sensing polymer foils based on embedded fibre Bragg grating sensors. Procedia Engineering, 2010, 5, 272-275.	1.2	13
90	Photonic Crystal Mikaelian Lenses and Their Potential Use as Transverse Focusing Elements in Microstructured Fibers. IEEE Photonics Journal, 2013, 5, 7100512-7100512.	1.0	13

#	ARTICLE	IF	CITATIONS
91	A Micro-Computed Tomography Technique to Study the Quality of Fibre Optics Embedded in Composite Materials. <i>Sensors</i> , 2015, 15, 10852-10871.	2.1	13
92	On the Characterization of Novel Step-Index Biocompatible and Biodegradable poly(D,L-lactic acid) Based Optical Fiber. <i>Journal of Lightwave Technology</i> , 2020, 38, 1905-1914.	2.7	13
93	Challenges in the Fabrication of Biodegradable and Implantable Optical Fibers for Biomedical Applications. <i>Materials</i> , 2021, 14, 1972.	1.3	13
94	Effect of combined gamma-neutron radiation on multiplexed fiber Bragg grating sensors. , 2000, 4134, 86.		12
95	Fibre Bragg grating temperature sensors for harsh nuclear environments. , 0, , .		12
96	Supercontinuum generation in all-solid photonic crystal fiber with low index core. <i>Laser Physics</i> , 2012, 22, 784-790.	0.6	12
97	Numerical modeling of femtosecond laser inscribed IR gratings in photonic crystal fibers. <i>Optics Express</i> , 2015, 23, 709.	1.7	12
98	Characterizing Flow-Induced Vibrations of Fuel Assemblies for Future Liquid Metal Cooled Nuclear Reactors Using Quasi-Distributed Fibre-Optic Sensors. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 864.	1.3	12
99	Effect of hydrogen gas on FBG-based optical fiber sensors for downhole pressure and temperature monitoring. <i>Optics Express</i> , 2019, 27, 5487.	1.7	12
100	Evaluation of a pragmatic approach for the prediction of radiation-induced losses in optical fibers exposed to a gamma-ray environment. , 2000, , .		11
101	Radiation effects in optical communication devices. , 0, , .		11
102	<title>Dosimetry with optical fibers: results for pure silica, phosphorous, and erbium doped samples</title>. , 2001, 4204, 151.		11
103	Towards micro-structured optical fiber sensors for transverse strain sensing in smart composite materials. , 2011, , .		11
104	Development of a mechanical strain amplifying transducer with Bragg grating sensor for low-amplitude strain sensing. <i>Smart Materials and Structures</i> , 2017, 26, 075006.	1.8	11
105	Fiber Bragg gratings as a candidate technology for satellite optical communication payloads: radiation-induced spectral effects. , 2000, , .		10
106	Induced optical absorption of silicate glasses due to gamma irradiation at high temperatures. <i>Fusion Engineering and Design</i> , 2010, 85, 1-6.	1.0	10
107	Anomalous transparency in photonic crystals and its application to point-by-point grating inscription in photonic crystal fibers. <i>Scientific Reports</i> , 2018, 8, 5470.	1.6	10
108	Single-Polarization Single-Mode Photonic Band Gap Fiber. <i>Acta Physica Polonica A</i> , 2007, 111, 239-245.	0.2	10

#	ARTICLE	IF	CITATIONS
109	<title>Multiplexed fiber Bragg grating sensors for in-core thermometry in nuclear reactors</title>. , 2001, , .		9
110	Design and characterization of a radiation-tolerant optical transmitter using discrete COTS bipolar transistors and VCSELs. IEEE Transactions on Nuclear Science, 2002, 49, 1414-1420.	1.2	9
111	In situ in-reactor testing of fusion materials and components. Fusion Engineering and Design, 2005, 75-79, 819-822.	1.0	9
112	Design and Assessment of a High Gamma-Dose Tolerant VCSEL Driver With Discrete SiGe HBTs. IEEE Transactions on Nuclear Science, 2006, 53, 2033-2039.	1.2	9
113	Radiation-induced transmission degradation of borosilicate crown optical glass from four different manufacturers. Optical Engineering, 2007, 46, 043004.	0.5	9
114	Fibre Bragg Gratings in Embedded Microstructured Optical Fibres Allow Distinguishing between Symmetric and Anti-Symmetric Lamb Waves in Carbon Fibre Reinforced Composites. Sensors, 2017, 17, 1948.	2.1	9
115	Spectral Verification of the Mechanisms behind FBG-Based Ultrasonic Guided Wave Detection. Sensors, 2020, 20, 6571.	2.1	9
116	Influence of gamma radiation on the electrooptic behavior of planar nematic liquid crystal cells. IEEE Photonics Technology Letters, 1997, 9, 481-483.	1.3	8
117	Comparison of radiation-induced transmission degradation of borosilicate crown optical glass from four different manufacturers. , 2005, 5897, 164.		8
118	High-Vacuum Gamma Irradiation Facilities for Synergistic Effects Testing on Optoelectronic Components and Materials. IEEE Transactions on Nuclear Science, 2006, 53, 3726-3730.	1.2	8
119	Pulsed X-Ray and Continuous Gamma Radiation Effects on Erbium Doped Optical Fibers Properties. IEEE Transactions on Nuclear Science, 2007, 54, 2598-2603.	1.2	8
120	Experimental developments towards an ITER thermography diagnostic. Journal of Nuclear Materials, 2007, 363-365, 1466-1471.	1.3	8
121	Mechanical Strength of Microstructured Optical Fibers. Journal of Lightwave Technology, 2014, 32, 2193-2201.	2.7	8
122	Signal-to-Noise Ratio Evaluation of Fibre Bragg Gratings for Dynamic Strain Sensing at Elevated Temperatures in a Liquid Metal Environment. Journal of Lightwave Technology, 2015, 33, 2378-2385.	2.7	8
123	Optical System Design of a Wide Field-of-View Camera for the Characterization of Earth's Reflected Solar Radiation. Remote Sensing, 2020, 12, 2556.	1.8	8
124	<title>Radiation effects on nematic liquid crystal devices</title>. , 1996, , .		7
125	Preliminary results on high-total-dose testing of semiconductor photonic sources: a comparison of VCSELs and resonant-cavity LEDs. , 1998, 3440, 47.		7
126	High-total-dose gamma and neutron radiation tolerance of VCSEL assemblies. , 2002, , .		7

#	ARTICLE	IF	CITATIONS
127	Dispersion and refractive index measurement for Ge, B-Ge doped and photonic crystal fibre following irradiation at MGy levels. Measurement Science and Technology, 2004, 15, 1659-1664.	1.4	7
128	Wavelength dependence of the response of Si and InGaAs pin photodiodes under gamma radiation. , 2004, , .		7
129	Optical fiber sensors and their application in monitoring stress build-up in dental resin cements. , 2005, , .		7
130	Radiation-induced absorption in a photo-thermo-refractive glass. , 2005, 5897, 172.		7
131	SPICE Modelling of a Discrete COTS SiGe HBT for Digital Applications up to MGy Dose Levels. IEEE Transactions on Nuclear Science, 2006, 53, 1945-1949.	1.2	7
132	Monitoring of Torque Induced Strain in Composite Shafts with Embedded and Surface-Mounted Optical Fiber Bragg Gratings. Sensors, 2021, 21, 2403.	2.1	7
133	Plasmon-Enhanced Refractometry Through Cladding Mode Excitation by a Fiber Bragg Grating in Photonic Crystal Fiber. Journal of Lightwave Technology, 2022, 40, 1121-1129.	2.7	7
134	Analysis of photoinduced stress distribution in fiber Bragg gratings. Optics Letters, 1999, 24, 1334.	1.7	6
135	On-line gamma dosimetry with phosphorous and germanium co-doped optical fibres. , 0, , .		6
136	Reliability study of photodiodes for their potential use in future fusion reactor environments. , 2004, , .		6
137	Reliability of optical fibers and components (Invited Paper). , 2005, , .		6
138	Gamma dosimetry using commercial PMMA optical fibres for nuclear environments. , 2005, 5855, 499.		6
139	High total dose gamma radiation assessment of commercially available SiGe heterojunction bipolar transistors. , 2005, , .		6
140	Guidelines for the characterization and use of fibre optic sensors: basic definitions and a proposed standard for FBG-based strain sensors. , 2009, , .		6
141	Optical fiber sensors embedded in flexible polymer foils. Proceedings of SPIE, 2010, , .	0.8	6
142	Influence of measurement noise on the determination of the radial profile of the photoelastic coefficient in step-index optical fibers. Applied Optics, 2013, 52, 8451.	0.9	6
143	Peak detection in fiber Bragg grating using a fast phase correlation algorithm. , 2014, , .		6
144	IR femtosecond pulsed laser-based fiber Bragg grating inscription in a photonic crystal fiber using a phase mask and a short focal length lens. Optics Express, 2018, 26, 14741.	1.7	6

#	ARTICLE	IF	CITATIONS
145	Optical fiber-based sensors as an experimental tool to assess the weft and warp yarn tension beam-to-roll in rapier weaving machines. Textile Research Journal, 2020, 90, 857-865.	1.1	6
146	Wide-Field-of-View Longwave Camera for the Characterization of the Earth's Outgoing Longwave Radiation. Sensors, 2021, 21, 4444.	2.1	6
147	An Introduction to Reliability of Optical Components and Fiber Optic Sensors. , 2008, , 73-100.		6
148	Packaged FBG based optical fiber sensor for simultaneous pressure and temperature monitoring. , 2018, , .		6
149	Fiber-optic link components for maintenance tasks in thermonuclear fusion environments. , 0, , .		5
150	<title>Radiation hardness of passive fiber optic components for the future thermonuclear fusion reactor instrumentation links</title>. , 2002, , .		5
151	<title>Photonic crystal fibers: state of the art and future perspectives</title>. , 2004, , .		5
152	Evaluation of long-period fiber grating temperature sensors in nuclear environments. , 2004, 5502, 88.		5
153	Numerical Analysis of Highly Birefringent Photonic Crystal Fibers with Bragg Reflectors. Optical and Quantum Electronics, 2006, 38, 535-545.	1.5	5
154	Influence of the coating type on the radiation sensitivity of FBGs. , 2008, , .		5
155	Polarizing photonic crystal fiber with low index inclusion in the core. Journal of Optics (United Tj ETQq1 1 0.784314 rgBT / Overlock 10	1.0	5
156	Photonic crystal fiber Bragg grating based sensors: opportunities for applications in healthcare. Proceedings of SPIE, 2011, , .	0.8	5
157	Characterisation of Tactile Sensors based on Fibre Bragg gratings Towards Temperature Independent Pressure Sensing. Procedia Engineering, 2012, 47, 1402-1405.	1.2	5
158	Temperature monitoring using fibre optic sensors in a lead-bismuth eutectic cooled nuclear fuel assembly. Nuclear Engineering and Design, 2016, 297, 54-59.	0.8	5
159	Transverse propagation of ultraviolet and infrared femtosecond laser pulses in photonic crystal fibers. Photonics Letters of Poland, 2012, 4, .	0.2	5
160	Simultaneous modal phase and group velocity matching in microstructured optical fibers for second harmonic generation with ultrashort pulses. Optics Express, 2022, 30, 12026.	1.7	5
161	<title>Optical fiber semiconductor absorption temperature sensor for temperature monitoring in a gas-cooled nuclear reactor</title>. , 1996, , .		4
162	Index and density changes induced by proton radiation in lanthanum crown glass. Applied Physics Letters, 2001, 78, 3196-3198.	1.5	4

#	ARTICLE	IF	CITATIONS
163	Long-term irradiation of fiber Bragg gratings in a low-dose-rate gamma-neutron radiation field. , 2002, , .		4
164	Application of microinterferometric tomography as an evaluation tool for phase micro-objects. , 2005, 5776, 596.		4
165	Polarizing Properties of Photonic Crystal Fibers. , 2006, , .		4
166	Assessment of space radiation effects on solid-state Brillouin phase conjugate mirrors. Applied Optics, 2007, 46, 5329.	2.1	4
167	Plastic Optical Fibers for Sensing Applications. , 2014, , .		4
168	Microstructured optical fiber Bragg grating-based strain and temperature sensing in the concrete buffer of the Belgian supercontainer concept. Proceedings of SPIE, 2014, , .	0.8	4
169	Algorithms for determining the radial profile of the photoelastic coefficient in glass and polymer optical fibers. Optics Express, 2015, 23, 18943.	1.7	4
170	Fatigue failure monitoring of 316L stainless steel coupons using optical fibre based distributed strain sensing. Smart Materials and Structures, 2019, 28, 105054.	1.8	4
171	A cascable polarization-based 1-to-9 multimode optical fiber switch using a PMMA fiber array holder. Journal of Lightwave Technology, 1998, 16, 1464-1472.	2.7	3
172	Long-term prediction of radiation induced losses in single mode optical fibers exposed to gamma rays using a pragmatic approach. , 0, , .		3
173	True dose rate enhancement effect in phosphorous-doped fibre optic radiation sensors. , 2004, , .		3
174	<title>Multiparameter sensitivities of birefringent photonic crystal fiber</title>. , 2004, , .		3
175	Round-robin for fiber Bragg grating metrology during COST270 action. , 2004, , .		3
176	Kinetic approach to the decomposition of radiation-induced absorption spectra. Journal of Non-Crystalline Solids, 2006, 352, 3343-3349.	1.5	3
177	Sensing with photonic crystal fibres. , 2007, , .		3
178	Stabilization of fiber Bragg gratings against gamma radiation. , 2007, , .		3
179	Proton and gamma radiation of 0.13 µm 200 GHz NPN SiGe:C HBTs featuring an airgap deep trench isolation. , 2007, , .		3
180	Comparison of gamma and proton-induced radiation damage in long-wavelength VCSELs. , 2007, , .		3

#	ARTICLE	IF	CITATIONS
181	Photonic crystal fibers for sensing applications. , 2008, , .		3
182	Transverse UV-laser irradiation-induced defects and absorption in a single-mode erbium-doped optical fiber. Optical Materials, 2009, 31, 1296-1299.	1.7	3
183	Design of a low-bending-loss large-mode-area photonic crystal fiber. Proceedings of SPIE, 2012, , .	0.8	3
184	Reflective polarimetric vibration sensor based on temperature-independent FBG in HiBi microstructured optical fiber. , 2014, , .		3
185	Self-centering fiber alignment structures for high-precision field installable single-mode fiber connectors. Proceedings of SPIE, 2014, , .	0.8	3
186	Signal-to-noise ratio evaluation with draw tower fibre Bragg gratings (DTGs) for dynamic strain sensing at elevated temperatures and corrosive environment. Proceedings of SPIE, 2014, , .	0.8	3
187	Radiation-Induced Effects on Fiber Bragg Gratings Inscribed in Highly Birefringent Photonic Crystal Fiber. IEEE Transactions on Nuclear Science, 2019, 66, 120-124.	1.2	3
188	Thermal poling of glass modified by gamma radiation. , 2003, , .		2
189	<title>Birefringence in photonic crystal fibers: a numerical approach based on the plane-wave method</title>. , 2004, 5576, 54.		2
190	Analysis of birefringent doped-core holey fibers for Bragg gratings. , 2005, 5855, 351.		2
191	Sensitivity of highly birefringent photonic bandgap fibers to temperature and strain. , 2005, , .		2
192	SPICE modelling of a discrete COTS SiGe HBT for digital applications up to MGy dose levels. , 2005, , .		2
193	Design and Assessment of a High Gamma-Dose Tolerant VCSEL Driver wit Discrete SiGe HBT's. European Conference on Radiation and Its Effects on Components and Systems, Proceedings of the, 2005, , .	0.0	2
194	Sensing properties of Bragg grating in highly birefringent and single mode photonic crystal fiber. , 2007, , .		2
195	Radial distribution of proton-induced effects in erbium-doped optical fibers: micro-luminescence study. , 2007, , .		2
196	An active vacuum general-purpose radiation test facility for assessment of ceramic insulators and diagnostic components. Fusion Engineering and Design, 2007, 82, 2531-2535.	1.0	2
197	Dynamic characteristics of nonlinear Bragg gratings in photonic crystal fibres. Optical and Quantum Electronics, 2007, 39, 455-467.	1.5	2
198	Toward supercontinuum generation with non-symmetric double core microstructured fibers. , 2008, , .		2

#	ARTICLE	IF	CITATIONS
199	Photonic skins for optical sensing: highlights of the PHOSFOS Project. , 2009, , .		2
200	Microstructure-assisted grating inscription in photonic crystal fibers. , 2012, , .		2
201	Mechanical reliability of microstructured optical fibers: a comparative study of tensile and bending strength. Proceedings of SPIE, 2012, , .	0.8	2
202	Applying optical design methods to the development of application specific photonic crystal fibres. , 2012, , .		2
203	Embedded fiber Bragg gratings in photonic crystal fiber for cure cycle monitoring of carbon fiber-reinforced polymer materials. Proceedings of SPIE, 2013, , .	0.8	2
204	<title>Photonics for nuclear industry: issues, problems, and potential solutions</title>. , 1999, , .		2
205	Aerospace-grade compatible surface mounted optical fibre sensor for structural health monitoring of composite structures. , 2018, , .		2
206	Radiation effects in optical communication devices. , 2001, , .		2
207	Evaluation of three different optical fibre temperature sensor types for application in gamma radiation environments. , 0, , .		1
208	Behavior of fibre Bragg gratings under high total dose gamma radiation. , 0, , .		1
209	Feasibility study for distributed dose monitoring in ionizing radiation environments with standard and custom-made optical fibers. , 2002, 4823, 213.		1
210	Design and characterization of a radiation tolerant optical transmitter using discrete COTS bipolar transistors and VCSELs. , 0, , .		1
211	Reliability issues for optical fibre technology in nuclear applications. , 0, , .		1
212	Reliability of components for fiber optic sensors (Invited Paper). , 2005, , .		1
213	Application of the microinterferometric tomography setup to the reliability tests of the fiber sensors exposed to cumulated gamma radiation. , 2005, , .		1
214	Mechanical reliability studies of optical fibres under high-dose gamma radiation. , 2006, , .		1
215	Technology of high-birefringent photonic crystal fibers for sensing applications. , 2006, , .		1
216	Use of the polarization properties of fiber Bragg gratings for sensing purposes. , 2006, 6189, 516.		1

#	ARTICLE	IF	CITATIONS
217	<title>Sensing applications of photonic crystal fibres</title>. , 2007, , .		1
218	Gamma radiation and low-temperature effect on a low-birefringence fibre for current sensing application in plasma burning reactors. Proceedings of SPIE, 2007, , .	0.8	1
219	Effect of Ionizing Radiation on the Performance of Volume Holographic Elements. IEEE Transactions on Nuclear Science, 2008, 55, 2248-2251.	1.2	1
220	The fabrication and characterization of fiber Bragg gratings in highly birefringent photonic crystal fibers for sensing applications. Proceedings of SPIE, 2008, , .	0.8	1
221	Investigations of bending loss oscillations in large mode area photonic crystal fibers. Proceedings of SPIE, 2008, , .	0.8	1
222	UV Bragg grating inscription in germanium-doped photonic crystal fibers. Proceedings of SPIE, 2010, , .	0.8	1
223	Polymer photonic sensing skin. Proceedings of SPIE, 2010, , .	0.8	1
224	On the influence of hexagonal lattice photonic crystal fiber parameters on femtosecond grating inscription. Proceedings of SPIE, 2012, , .	0.8	1
225	On a possible method to measure the radial profile of the photoelastic constant in step-index optical fiber. , 2014, , .		1
226	Internal strain monitoring in composite materials with embedded photonic crystal fiber Bragg gratings. Proceedings of SPIE, 2014, , .	0.8	1
227	Fiber Bragg grating-based shear strain sensors for adhesive bond monitoring. Proceedings of SPIE, 2014, , .	0.8	1
228	Mechanical strain-amplifying transducer for fiber Bragg grating sensors with applications in structural health monitoring. , 2017, , .		1
229	Identification of modal strains in concrete beams at sub-microstrain amplitude excitation using fibre Bragg grating sensors mounted on a strain-amplifying transducer. Structural Health Monitoring, 2021, 20, 1221-1230.	4.3	1
230	Compact wide field-of-view camera design for remote sensing of the Earth's emitted thermal radiation. , 2021, , .		1
231	Photonic crystal fiber Bragg grating based sensors – opportunities for applications in healthcare. , 2011, , .		1
232	Photonic Crystal Fibers for Femtosecond Laser Point-by-Point Grating Inscription. , 2016, , .		1
233	Selective liquid filling of photonic crystal fibers using two-photon polymerization lithography without post-exposure development. , 2020, , .		1
234	Optical interconnections and photonic devices for space applications: a review of radiation effects. , 1998, 3490, 159.		0

#	ARTICLE	IF	CITATIONS
235	Realization of polarization-reconfigurable optical interconnections using VCSELs and polarization selective diffractive optical elements. , 1999, , .		0
236	<title>Development of a high total radiation dose-resistant vertical-cavity surface-emitting laser driver with discrete COTS components</title>. , 2002, , .		0
237	Mode analysis of doped-core holey fibers. , 0, , .		0
238	Modeling Bragg gratings in doped-core holey fibers. , 0, , .		0
239	<title>Light propagation in birefringent doped-core holey fibers</title>. , 2004, , .		0
240	Theoretical investigations of birefringent holey fiber of new construction. , 2005, , .		0
241	Investigation of highly birefringent microstructured fibres for Bragg gratings inscription. , 2005, , .		0
242	Temperature sensitivity in birefringent photonic crystal fiber with triple defect. , 2005, , .		0
243	Polarization properties of photonic bandgap holey fibers. , 2005, , .		0
244	Measurements of hydrostatic pressure and temperature sensitivity in birefringent holey fibers. , 2006, 6182, 586.		0
245	Reliability studies of microoptical components in NEMO. , 2006, , .		0
246	Effect of ionizing radiation on the performance of volume holographic elements. , 2007, , .		0
247	Investigations of birefringence of the fundamental and the higher order modes in index guiding photonic crystal fiber. , 2007, , .		0
248	<title><title>Polarizing photonic crystal fibers for different operation range</title>. Proceedings of SPIE, 2007, , .	0.8	0
249	Effect of simulated space radiation on solid-state Brillouin phase conjugate mirrors. , 2007, , .		0
250	Highly birefringent holey fibers with zero polarimetric sensitivity to temperature. Proceedings of SPIE, 2008, , .	0.8	0
251	Gamma-irradiation tests of IR optical fibres for ITER thermographyâ€”a case study. AIP Conference Proceedings, 2008, , .	0.3	0
252	<title>Soft glass photonic crystal fibers for supercontinuum generation</title>. , 2008, , .		0

#	ARTICLE	IF	CITATIONS
253	Characterization of all-glass photonic band gap fiber. Proceedings of SPIE, 2008, , .	0.8	0
254	Broadband supercontinuum generation with photonic crystal fibers made of soft glass. , 2008, , .		0
255	Fiber Bragg gratings in microstructured optical fibers for stress monitoring. Proceedings of SPIE, 2009, , .	0.8	0
256	Towards flexible photonic sensing skins with optical fiber sensors. , 2012, , .		0
257	Rocking filter in microstructured fiber for high resolution hydrostatic pressure measurements. , 2012, , .		0
258	Photonic crystal fiber with large-mode area and low-bending loss for high-power compact lasers and amplifiers. , 2012, , .		0
259	Experimental investigation of bending properties of large mode area photonic crystal fibre with double lattice constant structure. , 2013, , .		0
260	Microstructured optical fiber Bragg grating-based shear stress sensing in adhesive bonds. , 2014, , .		0
261	Photonic crystal lenses for transverse focusing of laser illumination in microstructured optical fibers. , 2014, , .		0
262	The novel potential for embedded strain measurements offered by micro-structured optical fiber Bragg gratings. , 2015, , 529-535.		0
263	Microstructured optical fibre-based sensors for structural health monitoring applications. , 2015, , 139-174.		0
264	The role of highly non-linear index change mechanism during femtosecond grating writing in microstructured optical fibers. , 2015, , .		0
265	Opportunities for designing microstructured optical fibers for efficient femtosecond laser grating inscription. , 2015, , .		0
266	A numerical study on the importance of non-uniform index modification during femtosecond grating inscription in microstructured optical fibers. , 2016, , .		0
267	Inverse Abel transform algorithms to determine the radial profile of the photoelastic coefficient of glass optical fibers. , 2016, , .		0
268	Understanding the influence of the structured cladding on the reflectivity of femtosecond laser written gratings in photonic crystal fibers. , 2016, , .		0
269	Determination of the radial profile of the photoelastic coefficient of polymer optical fibers. , 2016, , .		0
270	Fiber Bragg grating sensors written by femtosecond laser pulses in micro-structured fiber for downhole pressure monitoring. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
271	Fibre optic sensor based measurements of flow-induced vibration in a liquid metal cooled nuclear reactor set-up. , 2017, , .		0
272	Dynamic 3D strain measurements with embedded micro-structured optical fiber Bragg grating sensors during impact on a CFRP coupon. , 2017, , .		0
273	Point-by-point fiber Bragg grating inscription in a dedicated multi-ring hexagonal lattice photonic crystal fiber. , 2017, , .		0
274	Distributed hydrostatic pressure measurement using phase-OTDR in a highly birefringent photonic crystal fibre. , 2018, , .		0
275	Phase mask-based IR femtosecond grating inscription in a photonic crystal fiber with short focal length cylindrical lens. , 2018, , .		0
276	Numerical and Experimental Study on the IR Femtosecond Laser and Phase Mask-Based Grating Inscription in Photonic Crystal Fibers. , 2019, , .		0
277	Anomalous Transparency in Photonic Crystals and its Dependence on the Refractive Index Difference. , 2019, , .		0
278	Design and Fabrication of Straight Waveguides, Tapers and S-Bends with Two-Photon Direct Laser Writing. , 2021, , .		0
279	<title>High birefringent photonic crystal optical fiber for Bragg gratings inscriptions</title>. Proceedings of SPIE, 2007, , .	0.8	0
280	Supercontinuum generation with microstructured fibers made of soft glass. Photonics Letters of Poland, 2009, 1, .	0.2	0
281	Development of silicate hollow core photonic crystal fiber. Photonics Letters of Poland, 2010, 2, .	0.2	0
282	Microstructured fibers optimized for transverse load and pressure sensing. , 2014, , .		0
283	Fibre Optic Sensors: Potential, applications and state of the art of the technology. , 1995, , 647-689.		0
284	Optical Fiber Bragg Grating Sensors for Torque Induced Strain Monitoring in Filament Wound Composite Shafts. , 2018, , .		0
285	Highly birefringent photonic crystal fiber compatible with IR femtosecond grating inscription methods. , 2018, , .		0
286	Instrumentation of a Lead-Bismuth Eutectic Cooled Nuclear Fuel Assembly Using Fibre Bragg Gratings for Characterizing the Flow-Induced Vibrations. , 2018, , .		0
287	Micro-structured fiber Bragg grating based pressure sensors in a downhole-like hydrogen rich environment. , 2018, , .		0
288	Highly birefringent photonic crystal fiber for distributed hydrostatic pressure sensing. , 2021, , .		0

#	ARTICLE	IF	CITATIONS
289	VACNT versus Black Velvet: a coating analysis for the next-generation Earth Radiation Budget radiometer. , 2020, , .		0