Elfed Lewis

List of Publications by Citations

290 papers	3,245 citations	28 h-index	40 g-index
388 ext. papers	4,073 ext. citations	2.9 avg, IF	5.35 L-index

#	Paper	IF	Citations
290	Fiber Optic Sensors for Temperature Monitoring during Thermal Treatments: An Overview. *Sensors*, **2016**, 16,	3.8	103
289	Optical Fibre Pressure Sensors in Medical Applications. *Sensors*, **2015**, 15, 17115-48	3.8	95
288	Novel optical fiber SPR temperature sensor based on MMF-PCF-MMF structure and gold-PDMS film. *Optics Express*, **2018**, 26, 1910-1917	3.3	84
287	. *Journal of Lightwave Technology*, **1995**, 13, 1407-1414	4	69
286	A comparative review of wireless sensor network mote technologies **2009**,		59
285	Fiber-optic chirped FBG for distributed thermal monitoring of ex-vivo radiofrequency ablation of liver. *Biomedical Optics Express*, **2014**, 5, 1799-811	3.5	54
284	A review of recent advances in optical fibre sensors for in vivo dosimetry during radiotherapy. *British Journal of Radiology*, **2015**, 88, 20140702	3.4	52
283	Feedback Stabilized Interrogation Technique for EFPI/FBG Hybrid Fiber-Optic Pressure and Temperature Sensors. *IEEE Sensors Journal*, **2012**, 12, 133-138	4	48
282	A review of optical fibre radiation dosimeters. *Sensor Review*, **2008**, 28, 136-142	1.4	48
281	Real-time gamma dosimetry using PMMA optical fibres for applications in the sterilization industry. *Measurement Science and Technology*, **2007**, 18, 3171-3176	2	48
280	A Humidity Sensor Based on a Singlemode-Side Polished Multimode–Singlemode Optical Fibre Structure Coated with Gelatin. *Journal of Lightwave Technology*, **2017**, 35, 4087-4094	4	44
279	Intensity-modulated fiber optic sensor for health monitoring applications: a comparative review. *Sensor Review*, **2013**, 33, 57-67	1.4	44
278	Strain sensor based on gourd-shaped single-mode-multimode-single-mode hybrid optical fibre structure. *Optics Express*, **2017**, 25, 18885-18896	3.3	43
277	Detection of carbon dioxide emissions from a diesel engine using a mid-infrared optical fibre based sensor. *Sensors and Actuators A: Physical*, **2007**, 136, 104-110	3.9	43
276	Wireless Sensor Node hardware: A review **2008**,		41
275	Real-time fibre optic radiation dosimeters for nuclear environment monitoring around thermonuclear reactors. *Fusion Engineering and Design*, **2008**, 83, 50-59	1.7	40
274	Radiation Dosimeter Using an Extrinsic Fiber Optic Sensor. *IEEE Sensors Journal*, **2014**, 14, 673-685	4	39

273	Monitoring of radiofrequency thermal ablation in liver tissue through fibre Bragg grating sensors array. *Electronics Letters*, **2014**, 50, 981-983	1.1	38
272	A Curvature Sensor Based on Twisted Single-Mode–Multimode–Single-Mode Hybrid Optical Fiber Structure. *Journal of Lightwave Technology*, **2017**, 35, 1725-1731	4	37
271	Selective doping of Ni in highly transparent glass-ceramics containing nano-spinels ZnGaO and Zn Ga Ge O for broadband near-infrared fiber amplifiers. *Scientific Reports*, **2017**, 7, 1783	4.9	35
270	Underwater Depth and Temperature Sensing Based on Fiber Optic Technology for Marine and Fresh Water Applications. *Sensors*, **2017**, 17,	3.8	34
269	Sensitive detection of CO2 implementing tunable thulium-doped all-fiber laser. *Applied Optics*, **2013**, 52, 3957-63	1.7	34
268	Simultaneous Measurement of Displacement and Temperature Based on a Balloon-Shaped Bent SMF Structure Incorporating an LPG. *Journal of Lightwave Technology*, **2018**, 36, 4960-4966	4	33
267	Combining principal component analysis with an artificial neural network to perform online quality assessment of food as it cooks in a large-scale industrial oven. *Sensors and Actuators B: Chemical*, **2005**, 107, 104-112	8.5	33
266	Plastic optical fibre sensor for spine bending monitoring with power fluctuation compensation. *Sensors*, **2013**, 13, 14466-83	3.8	31
265	Principal component analysis and artificial neural network based approach to analysing optical fibre sensors signals. *Sensors and Actuators A: Physical*, **2007**, 136, 28-38	3.9	31
264	Highly sensitive temperature sensor using packaged optical microfiber coupler filled with liquids. *Optics Express*, **2018**, 26, 356-366	3.3	30
263	Optical fiber sensors-based temperature distribution measurement in ex vivo radiofrequency ablation with submillimeter resolution. *Journal of Biomedical Optics*, **2014**, 19, 117004	3.5	30
262	An optical fibre based ultra violet and visible absorption spectroscopy system for ozone concentration monitoring. *Sensors and Actuators B: Chemical*, **2007**, 125, 372-378	8.5	28
261	Hazardous gas detection using an integrating sphere as a multipass gas absorption cell. *Sensors and Actuators A: Physical*, **2008**, 141, 414-421	3.9	28
260	"All-fiber" tunable laser in the 2 μm region, designed for CO2 detection. *Applied Optics*, **2012**, 51, 7011-5	1.7	26
259	Security for wireless sensor networks: A review **2009**,		25
258	CO2monitoring and detection using an integrating sphere as a multipass absorption cell. *Measurement Science and Technology*, **2007**, 18, 3187-3194	2	25
257	Highly sensitive strain sensor based on composite interference established within S-tapered multimode fiber structure. *Optics Express*, **2018**, 26, 33982-33992	3.3	25
256	Comparison of k-NN and neural network methods in the classification of spectral data from an optical fibre-based sensor system used for quality control in the food industry. *Sensors and Actuators B: Chemical*, **2005**, 111-112, 354-362	8.5	24

255	Measurement of Ultralow Level Bioethanol Concentration for Production Using Evanescent Wave Based Optical Fiber Sensor. *IEEE Transactions on Instrumentation and Measurement*, **2018**, 67, 780-788	5.2	23
254	Recent Improvement of Medical Optical Fibre Pressure and Temperature Sensors. *Biosensors*, **2015**, 5, 432-49	5.9	23
253	Femtosecond-Laser-Based Inscription Technique for Post-Fiber-Bragg Grating Inscription in an Extrinsic Fabry□Perot Interferometer Pressure Sensor. *IEEE Sensors Journal*, **2016**, 16, 3396-3402	4	22
252	Adaptive filter-based interrogation of high-sensitivity fiber optic Fabry-Perot interferometry sensors. *Sensors and Actuators A: Physical*, **2014**, 206, 144-150	3.9	22
251	. *IEEE Sensors Journal*, **2014**, 14, 2335-2340	4	22
250	Directional Bending Sensor Based on a Dual Side-Hole Fiber Mach□ehnder Interferometer. *IEEE Photonics Technology Letters*, **2018**, 30, 375-378	2.2	21
249	On-board monitoring of vehicle exhaust emissions using an ultraviolet optical fibre based sensor. *Journal of Optics*, **2007**, 9, S24-S31		21
248	Review of luminescent based fibre optic temperature sensors. *Sensor Review*, **2005**, 25, 56-62	1.4	21
247	Glass-ceramic optical fiber containing BaTiSiO nanocrystals for frequency conversion of lasers. *Scientific Reports*, **2017**, 7, 44456	4.9	20
246	Fiber-optic combined FPI/FBG sensors for monitoring of radiofrequency thermal ablation of liver tumors: ex vivo experiments. *Applied Optics*, **2014**, 53, 2136-44	1.7	20
245	A Microfiber Knot Incorporating a Tungsten Disulfide Saturable Absorber Based Multi-Wavelength Mode-Locked Erbium-Doped Fiber Laser. *Journal of Lightwave Technology*, **2018**, 36, 5633-5639	4	20
244	A high sensitivity temperature sensor based on balloon-shaped bent SMF structure with its original polymer coating. *Measurement Science and Technology*, **2018**, 29, 085104	2	20
243	Differential in vivo urodynamic measurement in a single thin catheter based on two optical fiber pressure sensors. *Journal of Biomedical Optics*, **2015**, 20, 037005	3.5	19
242	In-fiber whispering-gallery mode microsphere resonator-based integrated device. *Optics Letters*, **2018**, 43, 3961-3964	3	19
241	. *Journal of Lightwave Technology*, **2017**, 35, 4567-4573	4	19
240	Efficiently securing data on a wireless sensor network. *Journal of Physics: Conference Series*, **2007**, 76, 012063	0.3	19
239	A High-Temperature Humidity Sensor Based on a Singlemode-Side Polished Multimode-Singlemode Fiber Structure. *Journal of Lightwave Technology*, **2018**, 36, 2730-2736	4	18
238	An Optical Fibre-Based Sensor for Real-Time Monitoring of Clinical Linear Accelerator Radiotherapy Delivery. *IEEE Journal of Selected Topics in Quantum Electronics*, **2016**, 22, 35-42	3.8	18

237	Dual-wavelength mode-locked erbium-doped fiber laser based on tin disulfide thin film as saturable absorber. *Journal of Applied Physics*, **2019**, 125, 243104	2.5	18
236	Optical fibre cavity for ring-down experiments with low coupling losses. *Measurement Science and Technology*, **2010**, 21, 094034	2	18
235	A novel multi-point ultraviolet optical fibre sensor based on cladding luminescence. *Measurement Science and Technology*, **2003**, 14, 1477-1483	2	18
234	A novel multipoint luminescent coated ultra violet fibre sensor utilising artificial neural network pattern recognition techniques. *Sensors and Actuators A: Physical*, **2004**, 115, 267-272	3.9	18
233	High sensitivity temperature sensor based on singlemode-no-core-singlemode fibre structure and alcohol. *Sensors and Actuators A: Physical*, **2018**, 284, 28-34	3.9	18
232	Pressure, temperature and refractive index determination of fluids using a single fibre optic point sensor. *Sensors and Actuators A: Physical*, **2017**, 256, 84-88	3.9	17
231	Graphene□Gold□Au@Ag NPs-PDMS Films Coated Fiber Optic for Refractive Index and Temperature Sensing. *IEEE Photonics Technology Letters*, **2019**, 31, 1205-1208	2.2	17
230	Optical fibre based sensing using chromatic modulation. *Optics and Laser Technology*, **1987**, 19, 297-303	4.2	17
229	Highly sensitive displacement sensor based on composite interference established within a balloon-shaped bent multimode fiber structure. *Applied Optics*, **2018**, 57, 9662-9668	1.7	17
228	Intra-Tissue Pressure Measurement in Ex Vivo Liver Undergoing Laser Ablation with Fiber-Optic Fabry-Perot Probe. *Sensors*, **2016**, 16,	3.8	17
227	Gold Enhanced Hemoglobin Interaction in a Fabry□Pe□ot Based Optical Fiber Sensor for Measurement of Blood Refractive Index. *Journal of Lightwave Technology*, **2018**, 36, 1118-1124	4	16
226	An Optical Fibre Depth (Pressure) Sensor for Remote Operated Vehicles in Underwater Applications. *Sensors*, **2017**, 17,	3.8	16
225	Largest Enhancement of Broadband Near-Infrared Emission of Ni2+ in Transparent Nanoglass Ceramics: Using Nd3+ as a Sensitizer and Yb3+ as an Energy-Transfer Bridge. *Journal of Physical Chemistry C*, **2019**, 123, 10021-10027	3.8	15
224	Fibre optic pressure and temperature sensor for geothermal wells **2010**,		15
223	Non-invasive optical real-time measurement of total hemoglobin content. *Procedia Engineering*, **2010**, 5, 488-491		15
222	A mid-infrared optical fibre sensor for the detection of carbon monoxide exhaust emissions. *Sensors and Actuators A: Physical*, **2008**, 144, 13-17	3.9	15
221	Analysis of Hardware Encryption Versus Software Encryption on Wireless Sensor Network Motes. *Lecture Notes in Electrical Engineering*, **2008**, 3-14	0.2	15
220	Chalcogenide glasses with embedded ZnS nanocrystals: Potential mid-infrared laser host for divalent transition metal ions. *Journal of the American Ceramic Society*, **2018**, 101, 666-673	3.8	14

219	Topological Engineering of Photoluminescence Properties of Bismuth- or Erbium-Doped Phosphosilicate Glass of Arbitrary P2O5 to SiO2 Ratio. *Advanced Optical Materials*, **2018**, 6, 1800024	8.1	14
218	Conception and preliminary evaluation of an optical fibre sensor for simultaneous measurement of pressure and temperature. *Journal of Physics: Conference Series*, **2009**, 178, 012016	0.3	14
217	Deep UV based DOAS system for the monitoring of nitric oxide using ratiometric separation techniques. *Sensors and Actuators B: Chemical*, **2008**, 134, 317-323	8.5	14
216	Low Concentration Monitoring of Exhaust Gases Using a UV-Based Optical Sensor. *IEEE Sensors Journal*, **2007**, 7, 685-691	4	14
215	Interpreting complex data from a three-sensor multipoint optical fibre ethanol concentration sensor system using artificial neural network pattern recognition. *Measurement Science and Technology*, **2004**, 15, 1560-1567	2	14
214	Ultra-high-resolution detection of Pb2+ ions using a black phosphorus functionalized microfiber coil resonator. *Photonics Research*, **2019**, 7, 622	6	14
213	Design of a system that uses optical-fiber sensors and neural networks to control a large-scale industrial oven by monitoring the food quality online. *IEEE Sensors Journal*, **2005**, 5, 1407-1420	4	13
212	Proximal object and hazard detection for autonomous underwater vehicle with optical fibre sensors. *Robotics and Autonomous Systems*, **2005**, 53, 214-229	3.5	13
211	Tm-Ho codoped tellurite glass microsphere laser in the 1.47 □m wavelength region. *Optics Letters*, **2019**, 44, 511-513	3	13
210	Water-equivalent fiber radiation dosimeter with two scintillating materials. *Biomedical Optics Express*, **2016**, 7, 4919-4927	3.5	13
209	A twelve-wavelength Thulium-doped fibre laser based on a microfibre coil resonator incorporating black phosphorus. *Optics Communications*, **2019**, 437, 342-345	2	13
208	An Overlap-Splicing-Based Cavity in FBG Sensor for the Measurement of Strain and Temperature. *IEEE Photonics Technology Letters*, **2017**, 29, 235-238	2.2	12
207	Optical Fibre Bending Sensor With Automatic Intensity Compensation. *Journal of Lightwave Technology*, **2015**, 33, 2492-2498	4	12
206	Dissipative soliton generation in Er-doped fibre laser using SnS2 as a saturable absorber. *Applied Physics Express*, **2019**, 12, 102008	2.4	12
205	A comparison of CIE L*a*b* and spectral methods for the analysis of fading in sliced cured ham. *Journal of Optics*, **2007**, 9, S32-S39		12
204	An optical fibre sensor for particle concentration measurement in water systems based on inter-fibre light coupling between polymer optical fibres. *Transactions of the Institute of Measurement and Control*, **2000**, 22, 413-430	1.8	12
203	Investigation of a novel SMS fiber based planar multimode waveguide and its sensing performance. *Optics Express*, **2018**, 26, 26534-26543	3.3	12
202	Novel layered 2D materials for ultrafast photonics. *Nanophotonics*, **2020**, 9, 1743-1786	6.3	12

201	A fibre optic sensor for the in situ determination of rock physical properties. *International Journal of Rock Mechanics and Minings Sciences*, **2012**, 55, 55-62	6	11
200	U-bend fibre optic pH sensors using layer-by-layer electrostatic self-assembly technique. *Journal of Physics: Conference Series*, **2009**, 178, 012046	0.3	11
199	Ammonia Sensing and a Cross Sensitivity Evaluation with Atmosphere Gases using Optical Fiber Sensor. *Procedia Chemistry*, **2009**, 1, 959-962		11
198	An optical fibre ethanol concentration sensor utilizing Fourier transform signal processing analysis and artificial neural network pattern recognition. *Journal of Optics*, **2003**, 5, S69-S75		11
197	Nanosecond passively Q-switched fibre laser using a NiS based saturable absorber. *Optics Express*, **2019**, 27, 19843-19851	3.3	11
196	LED Based Sensor System for Non-Invasive Measurement of the Hemoglobin Concentration in Human Blood. *IFMBE Proceedings*, **2009**, 825-828	0.2	11
195	High-sensitivity salinity sensor based on optical microfiber coil resonator. *Optics Express*, **2018**, 26, 34633-34640	3.3	11
194	Sensitive variables extraction, non-destructive detection and visualization of total viable count (TVC) and pH in vacuum packaged lamb using hyperspectral imaging. *Analytical Methods*, **2017**, 9, 3172-3183	3.2	10
193	Investigation of Temperature Dependence of Microfiber Coil Resonators. *Journal of Lightwave Technology*, **2018**, 36, 4887-4893	4	10
192	Temperature Sensing Performance of Microsphere Resonators. *Sensors*, **2018**, 18,	3.8	10
191	Characterization of scintillating X-ray optical fiber sensors. *Sensors*, **2014**, 14, 3445-57	3.8	10
190	2.4 GHz IEEE 802.15.4 channel interference classification algorithm running live on a sensor node **2012**,		10
189	Optical Fibers and Optical Fiber Sensors Used in Radiation Monitoring **2012**,		10
188	Coexistence measurements and analysis of IEEE 802.15.4 with Wi-Fi and bluetooth for vehicle networks **2012**,		10
187	Monitoring of carbon dioxide exhaust emissions using mid-infrared spectroscopy. *Journal of Optics*, **2007**, 9, S87-S91		10
186	A large core polymer optical fibre sensor for x-ray dosimetry based on luminescence occurring in the cladding. *Measurement Science and Technology*, **2004**, 15, 1586-1590	2	10
185	An optical fibre distributed sensor based on pattern recognition. *Journal of Materials Processing Technology*, **2002**, 127, 23-30	5.3	10
184	Optical interleaver based on nested multiple knot microfiber resonators. *Optics Letters*, **2019**, 44, 1864-1867	3	10

183	Compound Glass Microsphere Resonator Devices. *Micromachines*, **2018**, 9,	3.3	10
182	Radiotherapy dosimetry based on plastic optical fibre sensors **2013**,		9
181	Power Management in Operating Systems for Wireless Sensor Nodes **2007**,		9
180	A multipoint optical fibre sensor system for use in process water systems based on artificial neural network pattern recognition techniques. *Sensors and Actuators A: Physical*, **2004**, 115, 293-302	3.9	9
179	Using a reflection-based optical fibre system and Neural Networks to evaluate the quality of food in a large-scale industrial oven. *Sensors and Actuators A: Physical*, **2004**, 115, 424-433	3.9	9
178	An optical-fiber sensor for use in water systems utilizing digital signal processing techniques and artificial neural network pattern recognition. *IEEE Sensors Journal*, **2004**, 4, 21-27	4	9
177	A multi-point optical fibre sensor for condition monitoring in process water systems based on pattern recognition. *Measurement: Journal of the International Measurement Confederation*, **2003**, 34, 301-312	4.6	9
176	Hazardous gas detection with an integrating sphere in the near-infrared. *Journal of Physics: Conference Series*, **2005**, 15, 250-255	0.3	9
175	Temperature-insensitive refractometer based on an RI-modulated singlemode-multimode-singlemode fibre structure. *Optics Express*, **2019**, 27, 13754-13764	3.3	9
174	In-fiber temperature sensor based on green up-conversion luminescence in an Er-Ybco-doped tellurite glass microsphere. *Optics Letters*, **2019**, 44, 3214-3217	3	9
173	NiS2 as a broadband saturable absorber for ultrafast pulse lasers. *Optics and Laser Technology*, **2020**, 132, 106492	4.2	9
172	Characterization of fiber radiation dosimeters with different embedded scintillator materials for radiotherapy applications. *Sensors and Actuators A: Physical*, **2018**, 269, 188-195	3.9	9
171	Motion artefact minimization from photoplethysmography based non-invasive hemoglobin sensor based on an envelope filtering algorithm. *Measurement: Journal of the International Measurement Confederation*, **2018**, 115, 288-298	4.6	9
170	Investigation of the self-imaging position of a singlemode-multimode-singlemode optical fiber structure. *Microwave and Optical Technology Letters*, **2017**, 59, 1645-1651	1.2	8
169	Multidisciplinary evaluation of X-ray optical fiber sensors. *Sensors and Actuators A: Physical*, **2014**, 213, 79-88	3.9	8
168	A Lightweight Classification Algorithm for External Sources of Interference in IEEE 802.15.4-Based Wireless Sensor Networks Operating at the 2.4 GHz. *International Journal of Distributed Sensor Networks*, **2014**, 10, 265286	1.7	8
167	Fabrication of a miniature all-glass fibre optic pressure and temperature sensor. *Procedia Engineering*, **2011**, 25, 503-506		8
166	Non-invasive sensor for an in vivo hemoglobin measurement **2011**,		8

165	Cross-sensitivity evaluation for ammonia sensing using absorption spectroscopy in the UV region. *Sensors and Actuators B: Chemical*, **2011**, 154, 226-231	8.5	8
164	Interrogation of multipoint optical fibre sensor signals based on artificial neural network pattern recognition techniques. *Sensors and Actuators A: Physical*, **2004**, 114, 7-12	3.9	8
163	Miniature Fabry-Perot interferometer based on a movable microsphere reflector. *Optics Letters*, **2020**, 45, 787-790	3	8
162	Low cost portable 3-D printed optical fiber sensor for real-time monitoring of lower back bending. *Sensors and Actuators A: Physical*, **2017**, 265, 193-201	3.9	7
161	Highly Selective Optical Fibre Ammonia Sensor for use in Agriculture. *Procedia Engineering*, **2011**, 25, 1113-1116		7
160	Non-invasive continuous online hemoglobin monitoring system **2010**,		7
159	A neural network based approach for determination of optical scattering and absorption coefficients of biological tissue. *Journal of Physics: Conference Series*, **2009**, 178, 012047	0.3	7
158	. *IEEE Sensors Journal*, **2007**, 7, 1685-1692	4	7
157	Monitoring food quality using an optical fibre based sensor system□ comparison of Kohonen and back-propagation neural network classification techniques. *Measurement Science and Technology*, **2006**, 17, 229-234	2	7
156	Optical fibre sensor for the measurement of ozone. *Journal of Physics: Conference Series*, **2005**, 15, 213-218	2.8	7
155	Neural networks and pattern recognition techniques applied to optical fibre sensors. *Transactions of the Institute of Measurement and Control*, **2000**, 22, 385-404	1.8	7
154	An Optical Fiber Sensor Based on La□□:Eu Scintillator for Detecting Ultraviolet Radiation in Real-Time. *Sensors*, **2018**, 18,	3.8	7
153	An Yb3+-Ho3+ Codoped Glass Microsphere Laser in the $2.0~mu$ m Wavelength Regions. *IEEE Photonics Technology Letters*, **2018**, 30, 1543-1546	2.2	7
152	Effect of Tm concentration on the emission wavelength shift in Tm-doped silica microsphere lasers. *Optics Letters*, **2018**, 43, 4325-4328	3	7
151	Comparison of models and visualization of total volatile basic nitrogen content in mutton using hyperspectral imaging and variable selection methods. *Spectroscopy Letters*, **2018**, 51, 226-235	1.1	6
150	Investigation of YAG:Ce-Based Optical Fibre Sensor for Use in Ultra-Fast External Beam Radiotherapy Dosimetry. *Journal of Lightwave Technology*, **2019**, 37, 4741-4747	4	6
149	Cloud computing and Internet of Things fusion: Cost issues **2017**,		6
148	An Experimental Study of the Effects of External Physiological Parameters on the Photoplethysmography Signals in the Context of Local Blood Pressure (Hydrostatic Pressure Changes). *Sensors*, **2017**, 17,	3.8	6

147	UV LED-based fiber coupled optical sensor for detection of ozone in the ppm and ppb range **2009**,		6
146	Ammonia detection in the UV region using an optical fiber sensor **2009**,		6
145	Conception and preliminary evaluation of an optical fibre sensor for simultaneous measurement of pressure and temperature **2009**,		6
144	Intelligent Processing of Spectroscopic Signals Obtained Using an Optical Fibre Based System for Food Quality Control. *International Journal of Smart Engineering System Design*, **2003**, 5, 409-416		6
143	An optical fiber sensor for the detection of germicidal UV irradiation using narrowband luminescent coatings. *IEEE Sensors Journal*, **2004**, 4, 619-626	4	6
142	An optical fiber sensor based on cladding photoluminescence for high power microwave plasma ultraviolet lamps used in water treatment. *Optical Review*, **2001**, 8, 459-462	0.9	6
141	New model for explaining the over-response phenomenon in percentage of depth dose curve measured using inorganic scintillating materials for optical fiber radiation sensors. *Optics Express*, **2019**, 27, 23693-23706	3.3	6
140	High sensitivity, low temperature-crosstalk strain sensor based on a microsphere embedded Fabry□Perot interferometer. *Sensors and Actuators A: Physical*, **2020**, 310, 112048	3.9	6
139	Triple-wavelength lasing at 1.50 □m, 1.84 □m and 2.08 □m in a Ho3+/Tm3+ co-doped fluorozirconate glass microsphere. *Journal of Luminescence*, **2020**, 219, 116889	3.8	6
138	Investigation on the Polarization Dependence of An Angled Polished Multimode Fibre Structure. *Journal of Lightwave Technology*, **2020**, 38, 4520-4525	4	5
137	YAG:Ce-Phosphor Scintillators for Optical Fiber Radiation Sensors With High Temporal Resolution. *IEEE Photonics Technology Letters*, **2018**, 30, 1653-1656	2.2	5
136	Portable 3-D Printed Plastic Optical Fibre Motion Sensor for Monitoring of Breathing Pattern and Respiratory Rate. **2019**,		5
135	Directly Pumped Ho3+-Doped Microspheres Lasing at $2.0~mu$ m. *IEEE Photonics Technology Letters*, **2019**, 31, 1366-1368	2.2	5
134	**2015**,		5
133	Optical sensor system for continuous non-invasive hemodynamic monitoring in real-time **2011**,		5
132	Mid-infrared point sensor for in situ monitoring of CO2 emissions from large-scale engines. *Applied Optics*, **2012**, 51, 7636-42	1.7	5
131	Optical fibre sensors for assessing food quality in full scale production ovens □a principal component analysis and artificial neural network based approach. *Nonlinear Analysis: Hybrid Systems*, **2008**, 2, 51-57	4.5	5
130	An investigation into the use of an integrating sphere as a gas absorption cell. *Journal of Optics*, **2007**, 9, S12-S18		5

129	Measuring of exhaust gas emissions using absorption spectroscopy. *International Journal of Intelligent Systems Technologies and Applications*, **2007**, 3, 33	0.5	5
128	Response changes of thin film palladium based optical fibre hydrogen sensors over time. *Journal of Physics: Conference Series*, **2007**, 76, 012004	0.3	5
127	Gamma dosimetry using commercial PMMA optical fibres for nuclear environments **2005**, 5855, 499		5
126	Development of an extrinsic optical fibre temperature sensor for monitoring liquid temperature in harsh industrial environments. *Journal of Optics*, **2005**, 7, S331-S339		5
125	U-bend evanescent wave plastic optical fibre sensor for minute level concentration detection of ethanol corresponding to biofuel production rate **2017**,		4
124	Low cost portable sensor for real-time monitoring of lower back bending **2017**,		4
123	A Validation Study of a Polymer Optical Fiber Sensor for Monitoring Lumbar Spine Movement. *Materials*, **2019**, 12,	3.5	4
122	Simultaneous measurement of displacement and temperature based on two cascaded balloon-like bent fibre structures. *Optical Fiber Technology*, **2020**, 58, 102277	2.4	4
121	Optical fiber plasmonic sensor for the ultrasensitive detection of copper (II) ion based on trimetallic Au@AgPt core-shell nanospheres. *Sensors and Actuators B: Chemical*, **2020**, 321, 128480	8.5	4
120	**2013**,		4
119	A Mote Interface for Fiber Optic Spectral Sensing With Real-Time Monitoring of the Marine Environment. *IEEE Sensors Journal*, **2013**, 13, 2619-2625	4	4
118	Novel FBG femtosecond laser inscription method for improved FPI sensors for medical applications **2014**,		4
117	Novel miniature pressure and temperature optical fibre sensor based on an extrinsic Fabry-Perot Interferometer (EFPI) and Fibre Bragg Gratings (FBG) for the Ocean environment **2014**,		4
116	Miniature Optical fiber combined pressure- and temperature sensor for medical applications **2012**,		4
115	Optical sensor technology for a noninvasive continuous monitoring of blood components **2010**,		4
114	High resolution led-spectroscopy for sensor application in harsh environment **2010**,		4
113	Optical fibre radiation dosimetry for low dose applications **2010**,		4
112	Temperature compensated miniature all-glass fibre optic pressure sensor **2011**,		4

111	Optical fibre X-ray radiation dosimeter sensor for low dose applications **2011**,		4
110	Simulation and measurement of carbon dioxide exhaust emissions using an optical-fibre-based mid-infrared point sensor. *Journal of Optics*, **2009**, 11, 054013		4
109	Sensor System Concept for Non-Invasive Blood Diagnosis. *Procedia Chemistry*, **2009**, 1, 493-496		4
108	Fibre-optic evanescent-wave field fluid concentration sensor **2009**,		4
107	Fabrication of a high temperature-resistance optical fibre micro pressure sensor **2009**,		4
106	Detection of high level carbon dioxide emissions using a compact optical fibre based mid-infrared sensor system for applications in environmental pollution monitoring. *Journal of Physics: Conference Series*, **2009**, 178, 012008	0.3	4
105	Hazardous exhaust gas monitoring using a deep UV based differential optical absorption spectroscopy (DOAS) system. *Journal of Physics: Conference Series*, **2007**, 76, 012021	0.3	4
104	Gas detection using an integrating sphere as a multipass absorption cell **2006**,		4
103	An optical fibre sensor for on-line temperature control of germicidal microwave plasma powered UV lamps. *Measurement: Journal of the International Measurement Confederation*, **2003**, 33, 341-346	4.6	4
102	A Review of Optical Fibre Ethanol Sensors: Current State and Future Prospects.. *Sensors*, **2022**, 22,	3.8	4
101	Enhanced sensitivity of heterocore structure surface plasmon resonance sensors based on local microstructures. *Optical Engineering*, **2018**, 57, 1	1.1	4
100	Up-Conversion Luminescence and C-Band Laser in Er3+-Doped Fluorozirconate Glass Microsphere Resonator. *IEEE Photonics Journal*, **2019**, 11, 1-7	1.8	4
99	Discriminating Twisting Direction by Polarization Maintaining Fiber Bragg Grating. *IEEE Photonics Technology Letters*, **2018**, 30, 654-657	2.2	3
98	Low-cost miniature fiber-optic extrinsic Fabry-Perot interferometric pressure sensor for biomedical applications **2013**,		3
97	An Extrinsic Optical Fiber Bending Sensor: A Theoretical Investigation and Validation. *IEEE Sensors Journal*, **2015**, 15, 5333-5339	4	3
96	Plastic optical fibre sensor for in-vivo radiation monitoring during brachytherapy **2015**,		3
95	Real-time monitoring of agricultural ammonia emissions based on optical fibre sensing technology **2010**,		3
94	Non-invasive measurement of blood components **2011**,		3

93	Low dose plastic optical fibre radiation dosimeter for clinical dosimetry applications **2009**,		3
92	A Compact Optical Fibre Based Mid- Infrared Sensor System for Detection of High Level Carbon Dioxide Emissions in Exhaust Automotive Applications. *Procedia Chemistry*, **2009**, 1, 593-596		3
91	Sensor system for non-invasive optical hemoglobin determination **2009**,		3
90	Real time exhaust gas sensor with high resolution for onboard sensing of harmful components **2008**,		3
89	Investigation of binary liquid aqueous methanol and ethanol mixtures using meander-shaped fibre-optic evanescent-wave absorption sensors **2008**,		3
88	Vibration-insensitive temperature sensing system based on fluorescence decay and using a digital processing approach. *Measurement Science and Technology*, **2006**, 17, 2010-2014	2	3
87	Development of an inexpensive optical fiber based harmful algae bloom sensor **2007**,		3
86	UV-based pollutant quantification in automotive exhausts **2006**, 6198, 52		3
85	A Coating Process For Multi-Point Luminescent Clad Fibre Optic Sensors. *Optical Review*, **2003**, 10, 330-334	3.9	3
84	Ozone measurement in visible region: an optical fibre sensor system. *Electronics Letters*, **2005**, 41, 1317	1.1	3
83	An optical fibre sensor for in situ measurement of external species in fluids based on artificial neural network pattern recognition. *Physiological Measurement*, **2001**, 22, 635-46	2.9	3
82	Multiwavelength Q-switched pulse operation with gold nanoparticles as saturable absorber. *Optical Engineering*, **2019**, 58, 1	1.1	3
81	Modal sensitivity enhancement of few-mode fiber Bragg gratings for refractive index measurement **2016**,		3
80	Bump in the wire (BITW) security solution for a marine ROV remote control application. *Journal of Information Security and Applications*, **2018**, 38, 111-121	3.5	2
79	An LED PLD based controller for experimental characterization of an optical fibre sensor system for measurement of x-ray radiation in clinical linacs. *Sensors and Actuators A: Physical*, **2019**, 296, 292-301	3.9	2
78	Miniature low-cost extrinsic Fabry-Perot interferometer for low-pressure detection **2013**,		2
77	Distributed fiber-optic sensors for thermal monitoring in radiofrequency thermal ablation in porcine phantom **2014**,		2
76	Fibre optic pressure sensor system for high temperature exhaust gas flows **2011**,		2

75	LED based spectroscopy - A low cost solution for high resolution concentration measurements e.g. for gas monitoring applications **2011**,		2
74	Temperature measurement of gases using acoustic means **2009**,		2
73	Utilisation of pattern recognition techniques to interpret complex data from a multipoint optical fibre ethanol concentration sensor system. *Sensors and Actuators A: Physical*, **2007**, 136, 144-153	3.9	2
72	Development of a Fibre-Optic DOAS Sensor for the Detection of Exhaust Gases Using Ratiometric Separation Techniques **2007**,		2
71	**2007**,		2
70	Ozone Measurement Using Optical Fibre Sensors in the Visible Region		2
69	A narrow-band photoluminescent optical fibre sensor for the detection of high-intensity germicidal ultraviolet radiation (254 nm) from a microwave plasma ultraviolet lamp. *Journal of Optics*, **2003**, 5, S63-S68		2
68	Experimental investigation into low pressure gas discharges in microwave electric field optical sensor probes. *Sensor Review*, **2003**, 23, 44-47	1.4	2
67	Employing spectroscopic and pattern recognition techniques to examine food quality both internally and externally as it cooks in an industrial oven **2004**,		2
66	Online monitoring of exhaust emissions using mid-infrared spectroscopy. *Journal of Physics: Conference Series*, **2005**, 15, 33-38	0.3	2
65	Vibration-insensitive temperature sensing system based on fluorescence decay and using a digital processing approach. *Journal of Physics: Conference Series*, **2005**, 15, 315-322	0.3	2
64	Development of temperature sensitive glassware for monitoring temperatures in harsh industrial environments. *Sensors and Actuators A: Physical*, **2005**, 123-124, 408-417	3.9	2
63	An optical fibre sensor for germicidal microwave plasma powered UV lamps output with potential for on-line temperature control		2
62	Multimode-interference-effect-based all-fiber displacement sensing system for an orthopedic Ilizarov apparatus device. *Applied Optics*, **2019**, 58, 3209-3213	1.7	2
61	A multi-wavelength discriminating sensor with a wireless mote interface for aquatic pollution monitoring. *International Journal on Smart Sensing and Intelligent Systems*, **2020**, 7, 1-4	0.4	2
60	Observing the Viscous Relaxation Process of Silica Optical Fiber at ~1000 °C Using Regenerated Fiber Bragg Grating. *Sensors*, **2019**, 19,	3.8	1
59	Effects of autonomic nervous system on the quality of non-invasive blood diagnosis by PPG-based sensor system **2015**,		1
58	Multi FBG femtosecond laser inscription in FPI based pressure sensors for temperature distribution **2015**,		1

57	Color Variation of the Up-Conversion Luminescence in Er3+-Yb3+ Co-Doped Lead Germanate Glasses and Microsphere Integrated Devices. *Journal of Lightwave Technology*, **2020**, 38, 4397-4401	4	1
56	Novel ultrahigh resolution optical fibre temperature sensor **2016**,		1
55	An efficient implementation of FPGA based high speed IPSec (AH/ESP) core. *International Journal of Internet Protocol Technology*, **2018**, 11, 97	0.3	1
54	Electric-arc-induced strength-controllable weak polarization mode coupling in polarization maintaining fiber. *Applied Optics*, **2018**, 57, 6446-6450	1.7	1
53	Underwater pressure measurement using fibre optic extrinsic Fabry-Perot interferometric (EFPI) sensors **2014**,		1
52	A comparison of clinic based dosimeters based on silica optical fibre and plastic optical fibre for in vivo dosimetry **2017**,		1
51	All plastic optical fiber-based respiration monitoring sensor **2017**,		1
50	Ultra sensitive high temporal resolution measurement of X-Ray pulses from modern Linac machines **2017**,		1
49	**2015**,		1
48	Compensated intensity-modulated optical fibre bending sensor based on tilt angle loss measurement **2014**,		1
47	Characterisation of radioluminesence based optical fibre dosimeter in radiotherapy beam applications **2013**,		1
46	**2013**,		1
45	Plastic optical fibre sensor for spine bending monitoring. *Journal of Physics: Conference Series*, **2013**, 450, 012004	0.3	1
44	Development of a prototyping platform for the integration of multiple fiber optic sensing devices to a SHIMMER system for in-situ maritime monitoring. **2009**,		1
43	Low cost hydrocarbon spillage sensor for the marine environment with interfacing to a mote platform **2011**,		1
42	Optical fibre radiation dosimeter for radiotherapy applications **2012**,		1
41	Comparison of palladium thin films used in a transmission based optical fibre hydrogen sensor **2008**,		1
40	Development of an optical fibre sensor system for online monitoring of microwave plasma UV and ozone generation system **2008**,		1

39	On-board monitoring of hazardous exhaust emissions in passenger cars (category M1) **2006**, 6379, 162		1
38	Development of a fibre optic sensor for the detection of harmful algae bloom and in particular domoic acid. *Conference Record - IEEE Instrumentation and Measurement Technology Conference*, **2007**,		1
37	The potential for development of an NH3 optical fibre gas sensor. *Journal of Physics: Conference Series*, **2007**, 85, 012015	0.3	1
36	Ozone detection using an integrating sphere as an optical absorption cell. *Journal of Physics: Conference Series*, **2007**, 76, 012041	0.3	1
35	An examination of ham color fading using optical fiber methods **2006**,		1
34	A 3 sensor multipoint optical fibre water sensor utilising artificial neural network pattern recognition		1
33	Investigation of the characteristics of a fiber-optic gas-liquid two-phase flow sensor. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2020**, 37, 1687-1694	1.8	1
32	Ultra-compact in-core-parallel-written FBG and Mach-Zehnder interferometer for simultaneous measurement of strain and temperature. *Optics Letters*, **2021**, 46, 5595-5598	3	1
31	Tellurite Glass and Its Application in Lasers **2020**,		1
30	A novel structure optical fiber radiation dosimeter for radiotherapy applications **2016**,		1
29	An Analytical Model for Describing the Power Coupling Ratio between Multimode Fibers with Transverse Displacement and Angular Misalignment in an Optical Fiber Bend Sensor. *Sensors*, **2019**, 19,	3.8	1
28	Distributed Measurement of Regeneration Ratios of an Apodized Type I Fiber Bragg Grating. *Journal of Lightwave Technology*, **2019**, 37, 6127-6132	4	1
27	Utilization of Data Classification in the Realization of a Surface Plasmon Resonance Readout System Using an FPGA Controlled RGB LED Light Source. *IEEE Sensors Journal*, **2018**, 1-1	4	0
26	Monitoring of Environmentally Hazardous Exhaust Emissions from Cars Using Optical Fibre Sensors. *Lecture Notes in Computer Science*, **2008**, 238-247	0.9	0
25	Reproducible coating and testing techniques for large core luminescent clad optical fibre probes for UV detection. *Sensors and Actuators A: Physical*, **2005**, 118, 57-62	3.9	0
24	All-optical modulator based on a microfibre coil resonator functionalized with MXene. *Optical Fiber Technology*, **2022**, 68, 102776	2.4	0
23	Bismuth-doped compound germanate glass microsphere lasing in the near-infrared region. *Microwave and Optical Technology Letters*, **2020**, 62, 67-71	1.2	0
22	An experimental and theoretical study of the influence of Cerenkov radiation on optical fiber X-ray sensors. *Measurement: Journal of the International Measurement Confederation*, **2021**, 171, 108863	4.6	0

21	Guest Editorial Special Issue on Advances in Fiber Optic Sensing Technologies. *IEEE Sensors Journal*, **2021**, 21, 16-16	4	0
20	Influence of probe geometry on the characteristics of optical fiber gas-liquid two-phase flow measurement signals. *Applied Optics*, **2021**, 60, 1660-1666	1.7	0
19	The Interference Study of Green-House Gases for an Ammonia Sensor. *Applied Mechanics and Materials*, **2014**, 704, 244-247	0.3	
18	Spectral eigendecomposition-based algorithm for cavity estimation in fibre-optic Fabry-Pérot pressure sensors. *Electronics Letters*, **2013**, 49, 1555-1556	1.1	
17	Guest Editorial Special Issue on Selected Papers From the IEEE Sensors 2011 Conference. *IEEE Sensors Journal*, **2013**, 13, 889-889	4	
16	In-situ monitoring of ammonia gas using an optical fibre based approach. *Journal of Physics: Conference Series*, **2011**, 307, 012058	0.3	
15	Overview of the OPTO-EMI-SENSE Project: Optical Fibre Sensor Network for Automotive Emission Monitoring. *Lecture Notes in Electrical Engineering*, **2008**, 179-196	0.2	
14	Optical fibre sensor for the online monitoring of gamma radiation doses. *Journal of Physics: Conference Series*, **2007**, 76, 012015	0.3	
13	Detection of premature browning in ground beef with an integrated optical-fibre based sensor using reflection spectroscopy and fibre Bragg grating technology. *Journal of Physics: Conference Series*, **2007**, 76, 012026	0.3	
12	Radioluminescent clad optical fibre X-ray sensor. *Electronics Letters*, **2003**, 39, 1575	1.1	
11	Toward a multipoint optical fibre sensor system for use in process water systems based on artificial neural network pattern recognition. *Journal of Physics: Conference Series*, **2005**, 15, 237-243	0.3	
10	Low pressure gas discharges for electric field intensity monitoring in microwave resonant cavities **2005**, 5826, 460		
9	Blood detection in the spinal column of whole cooked chicken using an optical fibre based sensor system. *Journal of Physics: Conference Series*, **2005**, 15, 189-193	0.3	
8	Optical fiber sensor for germicidal microwave plasma UV lamps for water and wastewater treatment **2001**, 4416, 90		
7	All-fiber optic displacement sensing system for an Ilizarov transverse tibial bone transport device. *Applied Optics*, **2020**, 59, 2077-2084	1.7	
6	GEANT4 simulation study of over-response phenomenon of fiber x-ray sensor*. *Chinese Physics B*, **2021**, 30, 048701	1.2	
5	Advanced characterization of an optical fibre sensor system based on an MPPC detector for measurement of X-ray radiation in clinical linacs. *Sensors and Actuators A: Physical*, **2021**, 318, 112129	3.9	
4	Topological Engineering of Glass Structures: Topological Engineering of Photoluminescence Properties of Bismuth- or Erbium-Doped Phosphosilicate Glass of Arbitrary P2O5 to SiO2 Ratio (Advanced Optical Materials 13/2018). *Advanced Optical Materials*, **2018**, 6, 1870051	8.1	

3	A Distributed Bonding Interfacial Loss Characterizing Method of Composite Crystal Based on Optical Low-Coherence Domain Reflectometry. *IEEE Transactions on Instrumentation and Measurement*, **2022**, 71, 1-7	5.2
2	Investigation on the Dependence of Directional Torsion Measurement on Multimode Fiber Geometry. *Journal of Lightwave Technology*, **2022**, 1-1	4
1	Correlation between emission and relative intensity noise spectral profiles of an Er-doped fiber superfluorescent source. *AIP Advances*, **2022**, 12, 055226	1.5