Stephen Christopher Warren-Smith

List of Publications by Year
in descending order

90 papers	2,264 citations	172207 29 h-index	223531 46 g-index
90 all docs	90 docs citations	90 times ranked	1617 citing authors

#	Article	IF	Citations
1	Sensing with suspended-core optical fibers. Optical Fiber Technology, 2010, 16, 343-356.	1.4	165
2	Suspended nanowires: fabrication, design and characterization of fibers with nanoscale cores. Optics Express, 2009, 17, 2646.	1.7	138
3	Enhancement of fluorescence-based sensing using microstructured optical fibres. Optics Express, 2007, 15, 17891.	1.7	99
4	Exposed-core microstructured optical fibers for real-time fluorescence sensing. Optics Express, 2009, 17, 18533.	1.7	88
5	High-sensitivity Sagnac-interferometer biosensor based on exposed core microstructured optical fiber. Sensors and Actuators B: Chemical, 2018, 269, 103-109.	4.0	88
6	Simultaneous measurement of temperature and refractive index using focused ion beam milled Fabry-Perot cavities in optical fiber micro-tips. Optics Express, 2016, 24, 14053.	1.7	86
7	Silica exposed-core microstructured optical fibers. Optical Materials Express, 2012, 2, 1538.	1.6	76
8	Fluorescence-Based Aluminum Ion Sensing Using a Surface-Functionalized Microstructured Optical Fiber. Langmuir, 2011, 27, 5680-5685.	1.6	69
9	Exposed core microstructured optical fiber Bragg gratings: refractive index sensing. Optics Express, 2014, 22, 1480.	1.7	69
10	Antibody immobilization within glass microstructured fibers: a route to sensitive and selective biosensors. Optics Express, 2008, 16, 18514.	1.7	64
11	Interferometric high temperature sensor using suspended-core optical fibers. Optics Express, 2016, 24, 8967.	1.7	61
12	Enhanced fluorescence sensing using microstructured optical fibers: a comparison of forward and backward collection modes. Optics Letters, 2008, 33, 1473.	1.7	60
13	Temperature sensing up to 1300Â°C using suspended-core microstructured optical fibers. Optics Express, 2016, 24, 3714.	1.7	56
14	Fabrication, splicing, Bragg grating writing, and polyelectrolyte functionalization of exposed-core microstructured optical fibers. Optics Express, 2014, 22, 29493.	1.7	51
15	In Situ Temperature-Compensated DNA Hybridization Detection Using a Dual-Channel Optical Fiber Sensor. Analytical Chemistry, 2021, 93, 10561-10567.	3.2	51
16	Interferometric-type optical biosensor based on exposed core microstructured optical fiber. Sensors and Actuators B: Chemical, 2015, 221, 320-327.	4.0	47
17	Predicting the drawing conditions for Microstructured Optical Fiber fabrication. Optical Materials Express, 2014, 4, 29.	1.6	44
18	Sensing in the presence of strong noise by deep learning of dynamic multimode fiber interference. Photonics Research, 2021, 9, B109.	3.4	42

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19	Nitric oxide optical fiber sensor based on exposed core fibers and CdTe/CdS quantum dots. Sensors and Actuators B: Chemical, 2018, 273, 9-17.	4.0	39
20	Temperature-Compensated Refractive Index Measurement Using a Dual Fabryâ€“Perot Interferometer Based on C-Fiber Cavity. IEEE Sensors Journal, 2020, 20, 6408-6413.	2.4	37
21	In-situ DNA detection with an interferometric-type optical sensor based on tapered exposed core microstructured optical fiber. Sensors and Actuators B: Chemical, 2022, 351, 130942.	4.0	37
22	Identification and Quantification of Explosives in Nanolitre Solution Volumes by Raman Spectroscopy in Suspended Core Optical Fibers. Sensors, 2013, 13, 13163-13177.	2.1	35
23	Taming the Light in Microstructured Optical Fibers for Sensing. International Journal of Applied Glass Science, 2015, 6, 229-239.	1.0	35
24	Simultaneous Measurement of Temperature and Refractive Index Using an Exposed Core Microstructured Optical Fiber. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-7.	1.9	34
25	Fluorescence-based sensing with optical nanowires: a generalized model and experimental validation. Optics Express, 2010, 18, 9474.	1.7	32
26	Driving down the Detection Limit in Microstructured Fiberâ€‘Based Chemical Dip Sensors. Sensors, 2011, 11, 2961-2971.	2.1	31
27	Perspective: Biomedical sensing and imaging with optical fibersâ€”Innovation through convergence of science disciplines. APL Photonics, 2018, 3, .	3.0	31
28	Scalable Functionalization of Optical Fibers Using Atomically Thin Semiconductors. Advanced Materials, 2020, 32, e2003826.	11.1	31
29	Molecular beacons immobilized within suspended core optical fiber for specific DNA detection. Optics Express, 2012, 20, 29378.	1.7	30
30	Multimode exposed core fiber specklegram sensor. Optics Letters, 2020, 45, 3212.	1.7	30
31	Distributed Fluorescence Sensing Using Exposed Core Microstructured Optical Fiber. IEEE Photonics Technology Letters, 2010, 22, 1385-1387.	1.3	29
32	Optical fiber refractive index sensor with low detection limit and large dynamic range using a hybrid fiber interferometer. Journal of Lightwave Technology, 2019, , 1-1.	2.7	28
33	Sensing with ultra-short Fabry-Perot cavities written into optical micro-fibers. Sensors and Actuators B: Chemical, 2017, 244, 1016-1021.	4.0	27
34	All-fiber all-optical quantitative polymerase chain reaction (qPCR). Sensors and Actuators B: Chemical, 2020, 323, 128681.	4.0	27
35	Stability of Grating-Based Optical Fiber Sensors at High Temperature. IEEE Sensors Journal, 2019, 19, 2978-2983.	2.4	26
36	Plug-in label-free optical fiber DNA hybridization sensor based on C-type fiber Vernier effect. Sensors and Actuators B: Chemical, 2022, 354, 131212.	4.0	26

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37	Direct core structuring of microstructured optical fibers using focused ion beam milling. Optics Express, 2016, 24, 378.	1.7	25
38	Silk: A bio-derived coating for optical fiber sensing applications. Sensors and Actuators B: Chemical, 2020, 311, 127864.	4.0	24
39	Simultaneous Measurement of Temperature and Relative Humidity Using Cascaded C-shaped Fabry-Perot interferometers. Journal of Lightwave Technology, 2022, 40, 1209-1215.	2.7	24
40	Plasmonic nanoparticle-functionalized exposed-core fiberâ€"an optofluidic refractive index sensing platform. Optics Letters, 2017, 42, 4395.	1.7	22
41	Quantification of the fluorescence sensing performance of microstructured optical fibers compared to multi-mode fiber tips. Optics Express, 2016, 24, 18541.	1.7	20
42	Multiplexed Optical Fiber Biochemical Sensing Using Cascaded C-Shaped Fabryâ€"Perot Interferometers. IEEE Sensors Journal, 2019, 19, 10425-10431.	2.4	19
43	Machine learning for sensing with a multimode exposed core fiber specklegram sensor. Optics Express, 2022, 30, 10443.	1.7	18
44	Generating and measuring photochemical changes inside the brain using optical fibers: exploring stroke. Biomedical Optics Express, 2014, 5, 3975.	1.5	16
45	Third harmonic generation in exposed-core microstructured optical fibers. Optics Express, 2016, 24, 17860.	1.7	16
46	Temperature-Compensated Interferometric High-Temperature Pressure Sensor Using a Pure Silica Microstructured Optical Fiber. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-12.	2.4	16
47	Temperature independent refractive index measurement using a fiber Bragg grating on abrupt tapered tip. Optics and Laser Technology, 2018, 101, 227-231.	2.2	15
48	Temperature Compensated Magnetic Field Sensor Using Magnetic Fluid Filled Exposed Core Microstructure Fiber. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-8.	2.4	15
49	Enzyme activity assays within microstructured optical fibers enabled by automated alignment. Biomedical Optics Express, 2012, 3, 3304.	1.5	11
50	Soft-glass imaging microstructured optical fibers. Optics Express, 2018, 26, 33604.	1.7	11
51	Nanofilm-induced spectral tuning of third harmonic generation. Optics Letters, 2017, 42, 1812.	1.7	10
52	Distributed optical fiber sensing of micron-scale particles. Sensors and Actuators A: Physical, 2020, 303, 111762.	2.0	9
53	Tunable multi-wavelength third-harmonic generation using exposed-core microstructured optical fiber. Optics Letters, 2019, 44, 626.	1.7	9
54	Whispering gallery mode excitation using exposed-core fiber. Optics Express, 2021, 29, 23549.	1.7	8

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55	Quantum noise limited nanoparticle detection with exposed-core fiber. Optics Express, 2019, 27, 18601.	1.7	8
56	Genotyping Single Nucleotide Polymorphisms Using Different Molecular Beacon Multiplexed within a Suspended Core Optical Fiber. Sensors, 2014, 14, 14488-14499.	2.1	7
57	Exposed-core fiber multimode interference sensor. Results in Optics, 2021, 5, 100125.	0.9	6
58	Temperature compensated fiber optic magnetic sensor based on the combination interference principle. Optics Letters, 2022, 47, 2558.	1.7	6
59	Cross-fence comparisons: Theory for spatially comprehensive, controlled variable assessment of treatment effects in managed landscapes. Ecological Informatics, 2011, 6, 170-176.	2.3	5
60	Optical Fibres for Distributed Corrosion Sensing - Architecture and Characterisation. Key Engineering Materials, 2013, 558, 522-533.	0.4	4
61	Exposed-core microstructured fibres for real-time fluorescence sensing. , 2009, , .		3
62	Design considerations for graded index fiber tip Fabryâ€“Perot interferometers. Measurement Science and Technology, 2021, 32, 055201.	1.4	3
63	Single-peak fiber Bragg gratings in suspended-core optical fibers. Optics Express, 2020, 28, 23354.	1.7	3
64	Sensing in suspended-core optical fibers. , 2011, , .		2
65	Fabrication of imaging microstructured optical fibers. , 2019, , .		2
66	Multimode optical fiber specklegram smart bed sensor array. Journal of Biomedical Optics, 2022, 27, .	1.4	2
67	DNA detection using molecular beacon in soft-glass microstructured optical fibers. Proceedings of SPIE, 2012, , .	0.8	1
68	Ultra-small Fabry-Perot cavities in tapered optical fibers. Proceedings of SPIE, 2016, , .	0.8	1
69	Tapered optical fiber tip probes based on focused ion beam-milled Fabry-Perot microcavities. , 2016, , .		1
70	Combined microfiber knot resonator and focused ion beam-milled Mach-Zehnder interferometer for refractive index measurement. Proceedings of SPIE, 2017, , .	0.8	1
71	Wavelength shifted third harmonic generation in an exposed-core microstructured optical fiber. , 2017, , .		1
72	Two-dimensional mapping of surface scatterers on an optical fiber core using selective mode launching. APL Photonics, 2021, 6, 026105.	3.0	1

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73	Highly efficient fluorescence sensing using microstructured optical fibres: general model and experiment. , 2008, , .		0
74	Interferometric fiber sensor using exposed core microstructured optical fiber for refractive index based biochemical sensing. Proceedings of SPIE, 2014, , .	0.8	0
75	High temperature fiber sensor using the interference effect within a suspended core microstructured optical fiber. , 2016, , .		0
76	Multiplexed refractive index-based sensing using optical fiber microcavities. , 2016, , .		0
77	Fiber probe microcavities for refractive index and temperature discrimination. Proceedings of SPIE, 2016, , .	0.8	0
78	High temperature sensing with single material silica optical fibers. , 2017, , .		0
79	Refractive Index and Temperature Sensing with Sagnac-Mach Zehnder Hybrid Fiber Interferometer. , 2020, , .		0
80	Integrated Photonics: Scalable Functionalization of Optical Fibers Using Atomically Thin Semiconductors (Adv. Mater. 47/2020). Advanced Materials, 2020, 32, 2070354.	11.1	0
81	Scalable Integrated Waveguide with CVD-Grown MoS2 and WS2 Monolayers on Exposed-Core Fibers. , 2021, , .		0
82	Advances in chemical and biological sensing using emerging soft glass optical fibers. , 2009, , .		0
83	Focused Ion Beam Structuring of Exposed-Core Microstructured Optical Fibers. , 2015, , .		0
84	Comparison of the Fluorescence Sensing Performance of Microstructured Optical Fibres and Multi-mode Fibre Tips. , 2016, , .		0
85	High Temperature Sensing with Suspended Core Fibers. , 2016, , .		0
86	Microstructured optical fiber high-temperature sensors. , 2019, , .		0
87	Novel concepts for sensing, imaging and mode generation in fibers using high-index glass. , 2019, , .		0
88	Multi-point high temperature optical fiber sensor. , 2019, , .		0
89	Towards distributed particle sensing using a few-mode exposed-core optical fibre with a spatially referenced evanescent field. , 2020, , .		0
90	Photoluminescence and Third Harmonic Generation in Directly-Grown MoS2 and WS2 Exposed-Core Fibers. , 2020, , .		0