

Christophe Caucheteur

List of Publications by Year in descending order

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154
papers

6,044
citations

76326

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76900

74
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154
all docs

154
docs citations

154
times ranked

4223
citing authors

#	ARTICLE	IF	CITATIONS
1	Overview and emerging trends in optical fiber aptasensing. <i>Biosensors and Bioelectronics</i> , 2022, 196, 113694.	10.1	38
2	Plasmon-Enhanced Refractometry Through Cladding Mode Excitation by a Fiber Bragg Grating in Photonic Crystal Fiber. <i>Journal of Lightwave Technology</i> , 2022, 40, 1121-1129.	4.6	7
3	Tilted Fiber Bragg Grating Inscription in Boron Co-Doped Photosensitive Optical Fiber Using 266 nm Solid State Laser Pulses. <i>IEEE Sensors Journal</i> , 2022, 22, 2229-2236.	4.7	4
4	Mode-division and spatial-division optical fiber sensors. <i>Advances in Optics and Photonics</i> , 2022, 14, 1.	25.5	37
5	Femtosecond laser point-by-point Bragg grating inscription in BDK-doped step-index PMMA optical fibers. <i>Optics Letters</i> , 2022, 47, 249.	3.3	10
6	Relevance of the Spectral Analysis Method of Tilted Fiber Bragg Grating-Based Biosensors: A Case-Study for Heart Failure Monitoring. <i>Sensors</i> , 2022, 22, 2141.	3.8	4
7	Label-free plasmonic immunosensor for cortisol detection in a D-shaped optical fiber. <i>Biomedical Optics Express</i> , 2022, 13, 3259.	2.9	73
8	Direct Bragg Grating Inscription in Single Mode Step-Index TOPAS/ZEONEX Polymer Optical Fiber Using 520 nm Femtosecond Pulses. <i>Polymers</i> , 2022, 14, 1350.	4.5	8
9	Optimization of Cladding Diameter for Refractive Index Sensing in Tilted Fiber Bragg Gratings. <i>Sensors</i> , 2022, 22, 2259.	3.8	10
10	Ultralow Limit Detection of Soluble HER2 Biomarker in Serum with a Fiber-Optic Ball-Tip Resonator Assisted by a Tilted FBG. <i>ACS Measurement Science Au</i> , 2022, 2, 309-316.	4.4	19
11	Smart Railway Traffic Monitoring Using Fiber Bragg Grating Strain Gauges. <i>Sensors</i> , 2022, 22, 3429.	3.8	7
12	Partially gold-coated tilted FBGs for enhanced surface biosensing. <i>Optics Express</i> , 2022, 30, 16518.	3.4	9
13	Multiresonant Fiber Gratings. <i>Optics and Photonics News</i> , 2022, 33, 42.	0.5	7
14	Femtosecond laser point-by-point Bragg grating inscription in BDK-doped step-index PMMA optical fibers: erratum. <i>Optics Letters</i> , 2022, 47, 3547.	3.3	1
15	HER2 breast cancer biomarker detection using a sandwich optical fiber assay. <i>Talanta</i> , 2021, 221, 121452.	5.5	85
16	Plasmonic Fiber Grating Biosensors Demodulated Through Spectral Envelopes Intersection. <i>Journal of Lightwave Technology</i> , 2021, 39, 7288-7295.	4.6	38
17	Plasmonic sensors based on tilted Bragg gratings in multicore optical fibers. <i>Optics Express</i> , 2021, 29, 18469.	3.4	20
18	Thermal Regeneration of Tilted Bragg Gratings UV Photo-Inscribed in Hydrogen-Loaded Standard Optical Fibers. <i>Journal of Lightwave Technology</i> , 2021, 39, 3582-3590.	4.6	7

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19	PfHRP2 detection using plasmonic optrodes: performance analysis. Malaria Journal, 2021, 20, 332.	2.3	10
20	Ultra-fast fiber Bragg grating inscription in CYTOP polymer optical fibers using phase mask and 400 nm femtosecond laser. Optics Express, 2021, 29, 25824.	3.4	14
21	800 nm femtosecond pulses for direct inscription of FBGs in CYTOP polymer optical fiber. Optics Letters, 2021, 46, 4272.	3.3	12
22	Plasmonic optical fiber grating biomedical aptasensor. , 2021, , .		0
23	Cortisol in-fiber ultrasensitive plasmonic immunosensing. IEEE Sensors Journal, 2020, , 1-1.	4.7	49
24	Narrow bandwidth fiber-optic spectral combs for renewable hydrogen detection. Science China Information Sciences, 2020, 63, 1.	4.3	45
25	Implementation of a Mobile Platform Based on Fiber Bragg Grating Sensors for Automotive Traffic Monitoring. Sensors, 2020, 20, 1567.	3.8	24
26	Rapid Detection of Circulating Breast Cancer Cells Using a Multiresonant Optical Fiber Aptasensor with Plasmonic Amplification. ACS Sensors, 2020, 5, 454-463.	7.8	120
27	Femtosecond Laser Inscribed Tilted Gratings for Leaky Mode Excitation in Optical Fibers. Journal of Lightwave Technology, 2020, 38, 1921-1928.	4.6	9
28	Comparison of regenerated fiber Bragg gratings properties in standard and B/Ge co-doped single-mode silica fibers. , 2020, , .		2
29	High-temperature resistance refractometric sensors based on regenerated TFBGs. , 2020, , .		3
30	HER2 biosensing through SPR-envelope tracking in plasmonic optical fiber gratings. Biomedical Optics Express, 2020, 11, 4862.	2.9	49
31	Multimodal plasmonic optical fiber grating aptasensor. Optics Express, 2020, 28, 7539.	3.4	28
32	Selective detection of cadmium ions using plasmonic optical fiber gratings functionalized with bacteria. Optics Express, 2020, 28, 19740.	3.4	50
33	Plasmonic Optical Fiber Grating Aptasensing. , 2020, , .		0
34	Refractometric sensing with plasmonic tilted Bragg gratings in different fiber types. , 2020, , .		3
35	CYTOP Fibre Bragg Grating Sensors for Harsh Radiation Environments. Sensors, 2019, 19, 2853.	3.8	27
36	Non-enzymatic D-glucose plasmonic optical fiber grating biosensor. Biosensors and Bioelectronics, 2019, 142, 111506.	10.1	77

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37	Functionalized etched tilted fiber Bragg grating aptasensor for label-free protein detection. <i>Biosensors and Bioelectronics</i> , 2019, 146, 111765.	10.1	85
38	Electrochemical Plasmonic Fiber-optic Sensors for Ultra-Sensitive Heavy Metal Detection. <i>Journal of Lightwave Technology</i> , 2019, 37, 3495-3502.	4.6	45
39	Optical Fiber Gratings Immunoassays. <i>Sensors</i> , 2019, 19, 2595.	3.8	30
40	In situ cancer diagnosis through online plasmonics. <i>Biosensors and Bioelectronics</i> , 2019, 131, 104-112.	10.1	68
41	Toward Commercial Polymer Fiber Bragg Grating Sensors: Review and Applications. <i>Journal of Lightwave Technology</i> , 2019, 37, 2605-2615.	4.6	185
42	Functionalized gold electroless-plated optical fiber gratings for reliable surface biosensing. <i>Sensors and Actuators B: Chemical</i> , 2019, 280, 54-61.	7.8	25
43	Fiber Bragg grating characterization using factorial design. <i>Applied Optics</i> , 2019, 58, 4898.	1.8	7
44	Effect of hydrogen gas on FBG-based optical fiber sensors for downhole pressure and temperature monitoring. <i>Optics Express</i> , 2019, 27, 5487.	3.4	12
45	Fiber Bragg grating regeneration at 450Å°C for improved high temperature sensing. <i>Optics Letters</i> , 2019, 44, 4036.	3.3	18
46	Palladium-coated plasmonic optical fiber gratings for hydrogen detection. <i>Optics Letters</i> , 2019, 44, 4483.	3.3	41
47	Fiber Grating Devices. , 2019, , 1351-1377.		0
48	An L-band ultrasonic probe using polymer optical fibre. , 2019, , .		2
49	Fibre Bragg gratings wavelength evolution and thermal sensitivity under gamma irradiation. , 2019, , .		1
50	Optical fiber gratings: hybrid gold structures for immunoassays. , 2019, , .		0
51	Intrinsic Fabry-Perot Sensors for Magnetic Field Detection. <i>EPJ Web of Conferences</i> , 2018, 170, 02001.	0.3	1
52	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.	3.3	10
53	Bragg Gratings and Fabry-Perot Cavities in Low-Loss Multimode CYTOP Polymer Fiber. <i>IEEE Photonics Technology Letters</i> , 2018, 30, 857-860.	2.5	47
54	Fiber Grating Devices. , 2018, , 1-27.		0

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55	Microstructured PMMA POF chirped Bragg gratings for strain sensing. <i>Optical Fiber Technology</i> , 2018, 45, 330-335.	2.7	28
56	Higher-order cladding mode excitation of femtosecond-laser-inscribed tilted FBGs. <i>Optics Letters</i> , 2018, 43, 2169.	3.3	11
57	Polymer optical fiber Bragg grating inscription with a single Nd:YAG laser pulse. <i>Optics Express</i> , 2018, 26, 18096.	3.4	32
58	Optical Fibre NO ₂ Sensor Based on Lutetium Bisphthalocyanine in a Mesoporous Silica Matrix. <i>Sensors</i> , 2018, 18, 740.	3.8	8
59	Bragg Gratings Inscription in TS-Doped PMMA POF by Using 248-nm KrF Pulses. <i>IEEE Photonics Technology Letters</i> , 2018, 30, 1609-1612.	2.5	10
60	Railway monitoring system using optical fiber grating accelerometers. <i>Smart Materials and Structures</i> , 2018, 27, 105033.	3.5	37
61	Cytokeratins Biosensing Using Tilted Fiber Gratings. <i>Biosensors</i> , 2018, 8, 74.	4.7	44
62	Thermal Profile Detection Through High-Sensitivity Fiber Optic Chirped Bragg Grating on Microstructured PMMA Fiber. <i>Journal of Lightwave Technology</i> , 2018, 36, 4723-4729.	4.6	29
63	Surface plasmon resonance sensing in gaseous media with optical fiber gratings. <i>Optics Letters</i> , 2018, 43, 2308.	3.3	40
64	Hot water-assisted fabrication of chirped polymer optical fiber Bragg gratings. <i>Optics Express</i> , 2018, 26, 34655.	3.4	9
65	Largely tunable dispersion chirped polymer FBG. <i>Optics Letters</i> , 2018, 43, 5106.	3.3	27
66	A Trackside Sensor System for Train Axle Counting by Fiber Bragg Grating Accelerometer. , 2018, , .		1
67	Immunosensing using Narrowband Cladding Mode Resonances. , 2018, , .		0
68	Cost-effective optical fiber gas leakage detector around buried pipelines. , 2018, , .		0
69	Requirements for surface plasmon resonance excitation in air with slightly tilted fiber Bragg gratings. , 2018, , .		0
70	Coating influence on the refractometric sensitivity of plasmonic optical fiber grating spectral combs. , 2018, , .		0
71	Molecularly imprinted electropolymerization on a metal-coated optical fiber for gas sensing applications. <i>Sensors and Actuators B: Chemical</i> , 2017, 244, 1145-1151.	7.8	61
72	Narrowband interrogation of plasmonic optical fiber biosensors based on spectral combs. <i>Optics and Laser Technology</i> , 2017, 96, 141-146.	4.6	33

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73	Immunosensing with Near-Infrared Plasmonic Optical Fiber Gratings. <i>Methods in Molecular Biology</i> , 2017, 1571, 47-71.	0.9	0
74	Cancer biomarker sensing using packaged plasmonic optical fiber gratings: Towards in vivo diagnosis. <i>Biosensors and Bioelectronics</i> , 2017, 92, 449-456.	10.1	149
75	Polarization-Assisted Fiber Bragg Grating Sensors: Tutorial and Review. <i>Journal of Lightwave Technology</i> , 2017, 35, 3311-3322.	4.6	79
76	Optical power-based interrogation of Near-infrared fibre grating spectral combs. , 2017, , .		0
77	FBGs written in specialty fiber for high pressure/high temperature measurement. <i>Optics Express</i> , 2017, 25, 17936.	3.4	35
78	Direct writing of plane-by-plane tilted fiber Bragg gratings using a femtosecond laser. <i>Optics Letters</i> , 2017, 42, 5198.	3.3	75
79	Plasmonic Optical Fiber-Grating Immunosensing: A Review. <i>Sensors</i> , 2017, 17, 2732.	3.8	96
80	BDK-doped core microstructured PMMA optical fiber for effective Bragg grating photo-inscription. <i>Optics Letters</i> , 2017, 42, 2209.	3.3	34
81	Bragg grating inscription in PMMA optical fibers using 400-nm femtosecond pulses. <i>Optics Letters</i> , 2017, 42, 2794.	3.3	14
82	Negative axial strain sensitivity in gold-coated eccentric fiber Bragg gratings. <i>Scientific Reports</i> , 2016, 6, 38042.	3.3	25
83	Railway structure monitoring solutions using fibre Bragg grating sensors. <i>International Journal of Rail Transportation</i> , 2016, 4, 135-150.	2.7	30
84	Visible vs near-infrared optical fiber plasmonics: performance comparison for protein sensing. , 2016, , .		0
85	Edge-filter technique and dominant frequency analysis for high-speed railway monitoring with fiber Bragg gratings. <i>Smart Materials and Structures</i> , 2016, 25, 075029.	3.5	21
86	Behavior of femtosecond laser-induced eccentric fiber Bragg gratings at very high temperatures. <i>Optics Letters</i> , 2016, 41, 4048.	3.3	37
87	Control over photo-inscription and thermal annealing to obtain high-quality Bragg gratings in doped PMMA optical fibers. <i>Optics Letters</i> , 2016, 41, 2930.	3.3	20
88	Near-infrared spectral combs probe molecular interactions. , 2016, , .		0
89	Ultrasensitive plasmonic sensing in air using optical fibre spectral combs. <i>Nature Communications</i> , 2016, 7, 13371.	12.8	183
90	[INVITED] Cell sensing with near-infrared plasmonic optical fiber sensors. <i>Optics and Laser Technology</i> , 2016, 78, 116-121.	4.6	23

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91	Small biomolecule immunosensing with plasmonic optical fiber grating sensor. Biosensors and Bioelectronics, 2016, 77, 315-322.	10.1	97
92	Review of Trackside Monitoring Solutions: From Strain Gages to Optical Fibre Sensors. Sensors, 2015, 15, 20115-20139.	3.8	85
93	Fiber-Optic SPR Immunosensors Tailored To Target Epithelial Cells through Membrane Receptors. Analytical Chemistry, 2015, 87, 5957-5965.	6.5	58
94	Review of plasmonic fiber optic biochemical sensors: improving the limit of detection. Analytical and Bioanalytical Chemistry, 2015, 407, 3883-3897.	3.7	556
95	Reversible NO ₂ Optical Fiber Chemical Sensor Based on LuPc ₂ Using Simultaneous Transmission of UV and Visible Light. Sensors, 2015, 15, 9870-9881.	3.8	12
96	Near-infrared grating-assisted SPR optical fiber sensors: design rules for ultimate refractometric sensitivity. Optics Express, 2015, 23, 2918.	3.4	104
97	Polarization effects in polymer FBGs: study and use for transverse force sensing. Optics Express, 2015, 23, 4581.	3.4	71
98	Distribution profiling of a transverse load using the DGD spectrum of chirped FBGs. Optics Express, 2015, 23, 18203.	3.4	10
99	Surface plasmon excitation at near-infrared wavelengths in polymer optical fibers. Optics Letters, 2015, 40, 3998.	3.3	35
100	Highly reflective Bragg gratings in slightly etched polymer optical fibers and their application for sensing. , 2015, , .		0
101	Anomalous effective strain-optic constants of nonparaxial optical fiber modes. Optics Letters, 2014, 39, 578.	3.3	7
102	Surface plasmon resonance in eccentric femtosecond-laser-induced fiber Bragg gratings. Optics Letters, 2014, 39, 6887.	3.3	20
103	Long-Range Surface Plasmon Polariton Excitation Using Tilted Fiber Bragg Gratings. , 2014, , .		0
104	Surface Waves on Optical Fibers for Biochemical Sensing and Plasmonics. , 2014, , .		0
105	Tilted Bragg gratings in step-index polymer optical fiber. Optics Letters, 2014, 39, 6835.	3.3	47
106	Highly reflective Bragg gratings in slightly etched step-index polymer optical fiber. Optics Express, 2014, 22, 18807.	3.4	57
107	Analysis of the intrinsic refractometric sensitivity of optical fiber plasmonic sensors. Proceedings of SPIE, 2014, , .	0.8	1
108	Long-range surface plasmons on gold-coated single-mode fibers. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2354.	2.1	10

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109	Fiber Bragg Grating Sensors toward Structural Health Monitoring in Composite Materials: Challenges and Solutions. <i>Sensors</i> , 2014, 14, 7394-7419.	3.8	404
110	Highly sensitive detection of molecular interactions with plasmonic optical fiber grating sensors. <i>Biosensors and Bioelectronics</i> , 2014, 51, 249-254.	10.1	106
111	Biofunctionalized surface-Plasmon optical fiber grating sensors. , 2014, , .		1
112	Tilted fiber Bragg gratings as a new sensing device for in situ and real time monitoring of surface-initiated polymerization. <i>Polymer Chemistry</i> , 2014, 5, 2506.	3.9	5
113	Surface Plasmon Resonances in Oriented Silver Nanowire Coatings on Optical Fibers. <i>Journal of Physical Chemistry C</i> , 2014, 118, 11035-11042.	3.1	42
114	Tilted fiber Bragg grating sensors. <i>Laser and Photonics Reviews</i> , 2013, 7, 83-108.	8.7	565
115	Biochemical sensing with Surface Plasmon-assisted optical fibers. , 2013, , .		1
116	High resolution grating-assisted surface plasmon resonance fiber optic aptasensor. <i>Methods</i> , 2013, 63, 239-254.	3.8	78
117	Residual strain monitoring of out-of-autoclave cured parts by use of polarization dependent loss measurements in embedded optical fiber Bragg gratings. <i>Composites Part A: Applied Science and Manufacturing</i> , 2013, 52, 38-44.	7.6	33
118	Femtosecond-laser-induced highly birefringent Bragg gratings in standard optical fiber. <i>Optics Letters</i> , 2013, 38, 594.	3.3	62
119	Fast thermal regeneration of fiber Bragg gratings. <i>Optics Letters</i> , 2013, 38, 4178.	3.3	38
120	Shear stress sensing with Bragg grating-based sensors in microstructured optical fibers. <i>Optics Express</i> , 2013, 21, 20404.	3.4	46
121	Optical Excitation of Metal Nanoparticles by Optical Fiber Cladding Mode Wavelength Combs. , 2013, , .		0
122	High-refractive-index transparent coatings enhance the optical fiber cladding modes refractometric sensitivity. <i>Optics Express</i> , 2013, 21, 29073.	3.4	45
123	Polarized spectral combs probe optical fiber surface plasmons. <i>Optics Express</i> , 2013, 21, 3055.	3.4	80
124	Macromolecular detection of streptavidin with gold-coated tilted FBG refractometers. <i>Proceedings of SPIE</i> , 2012, , .	0.8	0
125	Plasmonics on Fibers Coated with Metal Nanoparticles. , 2012, , .		0
126	Temperature-insensitive polarimetric vibration sensor based on HiBi microstructured optical fiber. <i>Applied Optics</i> , 2012, 51, 6130.	1.8	21

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127	Photothermal Group Delay Tuning in Nonpermanently Phase-Shifted Chirped FBGs. IEEE Photonics Technology Letters, 2012, 24, 557-559.	2.5	1
128	Self-Referenced Photon Counting OTDR Technique for Quasi-Distributed Fiber Bragg Gratings Sensors. IEEE Sensors Journal, 2012, 12, 118-123.	4.7	5
129	Control Over the Pressure Sensitivity of Bragg Grating-Based Sensors in Highly Birefringent Microstructured Optical Fibers. IEEE Photonics Technology Letters, 2012, 24, 527-529.	2.5	37
130	Infrared radiation detector interrogated by optical frequency-domain reflectometer. Optics and Lasers in Engineering, 2012, 50, 308-311.	3.8	4
131	Measurement of magnetic field using Rayleigh backscattering in optical fibres. , 2011, , .		5
132	Quasi-distributed measurement of surrounding refractive index using photon-counting time domain reflectometry. , 2011, , .		1
133	Comparison of the Radiation Sensitivity of Fiber Bragg Gratings Made by Four Different Manufacturers. IEEE Transactions on Nuclear Science, 2011, 58, 906-909.	2.0	13
134	Interrogation technique for TFBG-SPR refractometers based on differential orthogonal light states. Applied Optics, 2011, 50, 4257.	2.1	36
135	High resolution interrogation of tilted fiber grating SPR sensors from polarization properties measurement. Optics Express, 2011, 19, 1656.	3.4	140
136	Signal Processing, Management and Monitoring in Transmission Networks. Signals and Communication Technology, 2011, , 53-122.	0.5	0
137	Infrared Radiation Detection With Matched Fiber Bragg Gratings. IEEE Photonics Technology Letters, 2010, 22, 1732-1734.	2.5	5
138	All-fiber tunable optical delay line. Optics Express, 2010, 18, 3093.	3.4	78
139	Hybrid fiber grating cavity for multi-parametric sensing. Optics Express, 2010, 18, 10473.	3.4	12
140	Experimental demonstration of optical parametric chirped pulse amplification in optical fiber. Optics Letters, 2010, 35, 1786.	3.3	42
141	Original interrogation system for quasi-distributed FBC-based temperature sensor with fast demodulation technique. Sensors and Actuators A: Physical, 2009, 150, 192-198.	4.1	27
142	Fast and slow light in optical fibers through tilted fiber Bragg gratings. Optics Express, 2009, 17, 23502.	3.4	14
143	Tilted Bragg grating multipoint sensor based on wavelength-gated cladding-modes coupling. Applied Optics, 2009, 48, 3915.	2.1	13
144	Influence of the Grating Parameters on the Polarization Properties of Fiber Bragg Gratings. Journal of Lightwave Technology, 2009, 27, 1000-1010.	4.6	31

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145	PDL and DGD Reduction in Bragg Gratings Using Twisted Fibers for the Inscription. IEEE Photonics Technology Letters, 2009, 21, 1689-1691.	2.5	2
146	Time Delay Measurements as Promising Technique for Tilted Fiber Bragg Grating Sensors Interrogation. IEEE Photonics Technology Letters, 2009, 21, 1752-1754.	2.5	8
147	Hybrid fiber gratings coated with a catalytic sensitive layer for hydrogen sensing in air. Optics Express, 2008, 16, 16854.	3.4	83
148	Quasi-distributed refractometer using tilted Bragg gratings and time domain reflectometry. Optics Express, 2008, 16, 17882.	3.4	20
149	External Refractive Index Sensitivity of Weakly Tilted Fiber Bragg Gratings With Different Coating Thicknesses. IEEE Sensors Journal, 2008, 8, 1330-1336.	4.7	28
150	Hydrogen leak optical sensor using radiating fiber gratings. , 2008, , .		2
151	Theoretical and experimental study of differential group delay and polarization dependent loss of Bragg gratings written in birefringent fiber. Optics Communications, 2007, 269, 331-337.	2.1	30
152	Wavelength dependency of degree of polarization for uniform Bragg gratings written into polarization maintaining optical fibers. Optics Communications, 2005, 247, 325-333.	2.1	5
153	Polarization properties of uniform fiber Bragg gratings written in highly birefringent fibers. Optics Communications, 2005, 247, 239-245.	2.1	20
154	Fiber Bragg grating sensor demodulation technique by synthesis of grating parameters from its reflection spectrum. Optics Communications, 2004, 240, 329-336.	2.1	11