

Tuan Guo

List of Publications by Year in descending order

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132
papers

4,953
citations

81743

39
h-index

98622

67
g-index

135
all docs

135
docs citations

135
times ranked

3485
citing authors

#	ARTICLE	IF	CITATIONS
1	Review of plasmonic fiber optic biochemical sensors: improving the limit of detection. Analytical and Bioanalytical Chemistry, 2015, 407, 3883-3897.	1.9	556
2	[INVITED] Tilted fiber grating mechanical and biochemical sensors. Optics and Laser Technology, 2016, 78, 19-33.	2.2	231
3	Ultrasensitive plasmonic sensing in air using optical fibre spectral combs. Nature Communications, 2016, 7, 13371.	5.8	183
4	Reflective tilted fiber Bragg grating refractometer based on strong cladding to core recoupling. Optics Express, 2009, 17, 5736.	1.7	147
5	Highly sensitive detection of urinary protein variations using tilted fiber grating sensors with plasmonic nanocoatings. Biosensors and Bioelectronics, 2016, 78, 221-228.	5.3	144
6	Temperature-independent tilted fiber grating vibration sensor based on cladding-core recoupling. Optics Letters, 2008, 33, 1004.	1.7	133
7	In-situ DNA hybridization detection with a reflective microfiber grating biosensor. Biosensors and Bioelectronics, 2014, 61, 541-546.	5.3	130
8	Tilted fiber grating accelerometer incorporating an abrupt biconical taper for cladding to core recoupling. Optics Express, 2009, 17, 20651.	1.7	129
9	In situ plasmonic optical fiber detection of the state of charge of supercapacitors for renewable energy storage. Light: Science and Applications, 2018, 7, 34.	7.7	129
10	Fiber Grating-Assisted Surface Plasmon Resonance for Biochemical and Electrochemical Sensing. Journal of Lightwave Technology, 2017, 35, 3323-3333.	2.7	120
11	Temperature-insensitive fiber Bragg grating liquid-level sensor based on bending cantilever beam. IEEE Photonics Technology Letters, 2005, 17, 2400-2402.	1.3	109
12	Plasmonic Optical Fiber-Grating Immunosensing: A Review. Sensors, 2017, 17, 2732.	2.1	96
13	Ultrasensitive detection of endocrine disruptors via superfine plasmonic spectral combs. Light: Science and Applications, 2021, 10, 181.	7.7	96
14	In-situ detection of density alteration in non-physiological cells with polarimetric tilted fiber grating sensors. Biosensors and Bioelectronics, 2014, 55, 452-458.	5.3	82
15	Polarization-Assisted Fiber Bragg Grating Sensors: Tutorial and Review. Journal of Lightwave Technology, 2017, 35, 3311-3322.	2.7	79
16	Transition-metal dichalcogenides heterostructure saturable absorbers for ultrafast photonics. Optics Letters, 2017, 42, 4279.	1.7	79
17	Highly sensitive detection of dopamine using a graphene functionalized plasmonic fiber-optic sensor with aptamer conformational amplification. Sensors and Actuators B: Chemical, 2018, 264, 440-447.	4.0	75
18	Plasmonic fiber-optic vector magnetometer. Applied Physics Letters, 2016, 108, .	1.5	74

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19	Highly Sensitive Temperature Sensor Using PANDA Fiber Sagnac Interferometer. <i>Journal of Lightwave Technology</i> , 2011, 29, 3640-3644.	2.7	70
20	High-damage-resistant tungsten disulfide saturable absorber mirror for passively Q-switched fiber laser. <i>Optics Express</i> , 2016, 24, 16287.	1.7	68
21	Wide Range Refractive Index Measurement Using a Multi-Angle Tilted Fiber Bragg Grating. <i>IEEE Photonics Technology Letters</i> , 2017, 29, 719-722.	1.3	66
22	Operando monitoring of ion activities in aqueous batteries with plasmonic fiber-optic sensors. <i>Nature Communications</i> , 2022, 13, 547.	5.8	66
23	Electrochemical Surface Plasmon Resonance Fiber-Optic Sensor: <i>In Situ</i> Detection of Electroactive Biofilms. <i>Analytical Chemistry</i> , 2016, 88, 7609-7616.	3.2	64
24	Highly sensitive bending sensor based on Er ³⁺ -doped DBR fiber laser. <i>Optics Express</i> , 2010, 18, 17834.	1.7	60
25	Hydrogen peroxide and glucose concentration measurement using optical fiber grating sensors with corrodible plasmonic nanocoatings. <i>Biomedical Optics Express</i> , 2018, 9, 1735.	1.5	60
26	Gold Nanoparticle-Functionalized Surface Plasmon Resonance Optical Fiber Biosensor: <i>In Situ</i> Detection of Thrombin With 1 nM Detection Limit. <i>Journal of Lightwave Technology</i> , 2019, 37, 2748-2755.	2.7	51
27	Monitoring battery electrolyte chemistry <i>via</i> in-operando tilted fiber Bragg grating sensors. <i>Energy and Environmental Science</i> , 2021, 14, 6464-6475.	15.6	51
28	Selective detection of cadmium ions using plasmonic optical fiber gratings functionalized with bacteria. <i>Optics Express</i> , 2020, 28, 19740.	1.7	50
29	Reflective fiber-optic refractometer based on a thin-core fiber tailored Bragg grating reflection. <i>Optics Letters</i> , 2012, 37, 323.	1.7	48
30	Power-Referenced and Temperature-Calibrated Optical Fiber Refractometer. <i>IEEE Photonics Technology Letters</i> , 2008, 20, 635-637.	1.3	47
31	Mach-Zehnder Interferometer Based on a Sandwich Fiber Structure for Refractive Index Measurement. <i>IEEE Sensors Journal</i> , 2012, 12, 2081-2085.	2.4	46
32	Discrimination of Bulk and Surface Refractive Index Change in Plasmonic Sensors with Narrow Bandwidth Resonance Combs. <i>ACS Sensors</i> , 2021, 6, 3013-3023.	4.0	46
33	Electrochemical Plasmonic Fiber-optic Sensors for Ultra-Sensitive Heavy Metal Detection. <i>Journal of Lightwave Technology</i> , 2019, 37, 3495-3502.	2.7	45
34	Narrow bandwidth fiber-optic spectral combs for renewable hydrogen detection. <i>Science China Information Sciences</i> , 2020, 63, 1.	2.7	45
35	Label-Free Detection of DNA Hybridization Using a Reflective Microfiber Bragg Grating Biosensor With Self-Assembly Technique. <i>Journal of Lightwave Technology</i> , 2017, 35, 3354-3359.	2.7	43
36	Plasmonic Fiber-Optic Photothermal Anemometers With Carbon Nanotube Coatings. <i>Journal of Lightwave Technology</i> , 2019, 37, 3373-3380.	2.7	43

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37	Label-Free Thrombin Detection Using a Tapered Fiber-Optic Interferometric Aptasensor. <i>Journal of Lightwave Technology</i> , 2019, 37, 2756-2761.	2.7	43
38	VCSEL-Based Tilted Fiber Grating Vibration Sensing System. <i>IEEE Photonics Technology Letters</i> , 2010, 22, 1235-1237.	1.3	42
39	Beat-frequency adjustable Er ³⁺ -doped DBR fiber laser for ultrasound detection. <i>Optics Express</i> , 2011, 19, 2485.	1.7	42
40	Palladium-coated plasmonic optical fiber gratings for hydrogen detection. <i>Optics Letters</i> , 2019, 44, 4483.	1.7	41
41	Polarimetric multi-mode tilted fiber grating sensors. <i>Optics Express</i> , 2014, 22, 7330.	1.7	38
42	In-Situ Detection of Small Biomolecule Interactions Using a Plasmonic Tilted Fiber Grating Sensor. <i>Journal of Lightwave Technology</i> , 2019, 37, 2792-2799.	2.7	38
43	Specific Detection of Aquaporin-2 Using Plasmonic Tilted Fiber Grating Sensors. <i>Journal of Lightwave Technology</i> , 2017, 35, 3360-3365.	2.7	37
44	Mode-division and spatial-division optical fiber sensors. <i>Advances in Optics and Photonics</i> , 2022, 14, 1.	12.1	37
45	Fiber-optic vector vibroscope. <i>Optics Letters</i> , 2012, 37, 2703.	1.7	35
46	Orientation-dependent fiber-optic accelerometer based on grating inscription over fiber cladding. <i>Optics Letters</i> , 2014, 39, 6616.	1.7	35
47	Sensitivity-Improved Strain Sensor over a Large Range of Temperatures Using an Etched and Regenerated Fiber Bragg Grating. <i>Sensors</i> , 2014, 14, 18575-18582.	2.1	34
48	High-resolution and temperature-compensational HER2 antigen detection based on microwave photonic interrogation. <i>Sensors and Actuators B: Chemical</i> , 2017, 245, 583-589.	4.0	34
49	Highly sensitive fiber-optic accelerometer by grating inscription in specific core dip fiber. <i>Scientific Reports</i> , 2017, 7, 11856.	1.6	31
50	Twist sensor based on surface plasmon resonance excitation using two spectral combs in one tilted fiber Bragg grating. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2019, 36, 1176.	0.9	31
51	Wideband-adjustable reflection-suppressed rejection filters using chirped and tilted fiber gratings. <i>Optics Express</i> , 2014, 22, 24430.	1.7	30
52	Polarization-maintaining fiber-optic-grating vector vibroscope. <i>Optics Letters</i> , 2013, 38, 531.	1.7	28
53	Liquid Crystal-Embedded Tilted Fiber Grating Electric Field Intensity Sensor. <i>Journal of Lightwave Technology</i> , 2017, 35, 3347-3353.	2.7	28
54	Fiber Optic Refractive Index Distributed Multi-Sensors by Scattering-Level Multiplexing With MgO Nanoparticle-Doped Fibers. <i>IEEE Sensors Journal</i> , 2020, 20, 2504-2510.	2.4	28

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55	Ultrahigh Sensitive Detection of Tau Protein as Alzheimer's Biomarker via Microfluidics and Nanofunctionalized Optical Fiber Sensors. <i>Advanced Photonics Research</i> , 2022, 3, .	1.7	28
56	Fiber-integrated tungsten disulfide saturable absorber (mirror) for pulsed fiber lasers. <i>Optical Engineering</i> , 2016, 55, 081318.	0.5	27
57	Ultrasensitive and in situ DNA detection in various pH environments based on a microfiber with a graphene oxide linking layer. <i>RSC Advances</i> , 2017, 7, 13177-13183.	1.7	27
58	Temperature-insensitive fiber Bragg grating dynamic pressure sensing system. <i>Optics Letters</i> , 2006, 31, 2269.	1.7	26
59	Orientation-dependant inclinometer based on intermodal coupling of two-LP-modes in a polarization-maintaining photonic crystal fiber. <i>Optics Express</i> , 2013, 21, 17576.	1.7	26
60	VCSEL-powered and polarization-maintaining fiber-optic grating vector rotation sensor. <i>Optics Express</i> , 2013, 21, 19097.	1.7	26
61	Operando optical fiber monitoring of nanoscale and fast temperature changes during photo-electrocatalytic reactions. <i>Light: Science and Applications</i> , 2022, 11, .	7.7	26
62	Simultaneous Measurement of Refractive Index and Temperature Using a Michelson Fiber Interferometer With a Hi-Bi Fiber Probe. <i>IEEE Sensors Journal</i> , 2013, 13, 2061-2065.	2.4	25
63	Self-Starting Mode-Locking by Fiber-Integrated WS ₂ Saturable Absorber Mirror. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2017, 23, 33-38.	1.9	25
64	A fiber-optic sensor for neurotransmitters with ultralow concentration: near-infrared plasmonic electromagnetic field enhancement using raspberry-like meso-SiO ₂ nanospheres. <i>Nanoscale</i> , 2017, 9, 14929-14936.	2.8	24
65	Real-Time Monitoring of Wind-Induced Vibration of High-Voltage Transmission Tower Using an Optical Fiber Sensing System. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020, 69, 268-274.	2.4	24
66	Temperature-insensitive fiber Bragg grating force sensor via a bandwidth modulation and optical-power detection technique. <i>Journal of Lightwave Technology</i> , 2006, 24, 3797-3802.	2.7	23
67	Evanescently coupled optical fiber refractometer based a tilted fiber Bragg grating and a D-shaped fiber. <i>Optics Express</i> , 2015, 23, 20971.	1.7	22
68	Fast-Response Oxygen Optical Fiber Sensor based on PEA ₂ Sn ₄ Perovskite with Extremely Low Limit of Detection. <i>Advanced Science</i> , 2022, 9, e2104708.	5.6	20
69	Resolution-improved in situ DNA hybridization detection based on microwave photonic interrogation. <i>Optics Express</i> , 2015, 23, 27061.	1.7	19
70	<i>In situ</i> determination of the complex permittivity of ultrathin H ₂ -infused palladium coatings for plasmonic fiber optic sensors in the near infrared. <i>Journal of Materials Chemistry C</i> , 2018, 6, 5161-5170.	2.7	19
71	Plasmonic Fiber-Optic Refractometers Based on a High Q-Factor Amplitude Interrogation. <i>IEEE Sensors Journal</i> , 2016, 16, 5974-5978.	2.4	18
72	Highly-Sensitive Temperature Sensor Using a Hi-Bi Fiber Tip Probe. <i>IEEE Sensors Journal</i> , 2012, 12, 2077-2080.	2.4	17

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73	Q-Switched Fiber Laser Using a Fiber-Tip-Integrated TI Saturable Absorption Mirror. IEEE Photonics Journal, 2016, 8, 1-6.	1.0	17
74	Real-time, in-situ analysis of silver ions using nucleic acid probes modified silica microfiber interferometry. Talanta, 2017, 165, 245-250.	2.9	17
75	Ultrasensitive and label-free detection of $\hat{1}^3$ -aminobutyric acid using fiber-optic interferometric sensors functionalized with size-selective molecular sieve arrays. Sensors and Actuators B: Chemical, 2017, 244, 934-940.	4.0	16
76	Photocatalysis in an evanescent field: an <i>in situ</i> approach to studying photocatalytic performance by tracing interfacial refractive index changes and kinetics. Journal of Materials Chemistry A, 2018, 6, 20513-20522.	5.2	16
77	Reflective Fiber-Optic Refractometer Using Broadband Cladding Mode Coupling Mediated by a Tilted Fiber Bragg Grating and an In-Fiber Mirror. Journal of Lightwave Technology, 2019, 37, 2815-2819.	2.7	16
78	Optical detection of the percolation threshold of nanoscale silver coatings with optical fiber gratings. APL Photonics, 2020, 5, .	3.0	16
79	Beat frequency trimming of dual-polarization fiber grating lasers for multiplexed sensor applications. Optics Express, 2011, 19, 218.	1.7	14
80	Mesoporous nanospheres functionalized optical microfiber biosensor for low concentration neurotransmitter detection. Optics Express, 2016, 24, 27152.	1.7	14
81	Ultrahigh-Temperature Chirped Fiber Bragg Grating Through Thermal Activation. IEEE Photonics Technology Letters, 2015, 27, 1305-1308.	1.3	13
82	Fiber-Optic Accelerometer Using Tilted Grating Inscribed in Depressed Cladding Fibers. IEEE Photonics Technology Letters, 2017, 29, 2171-2174.	1.3	13
83	High-sensitive and temperature-self-calibrated tilted fiber grating biological sensing probe. Science Bulletin, 2013, 58, 2611-2615.	1.7	12
84	High Temperature Measurement Up to 1100 $^{\circ}\text{C}$ Using a Polarization-Maintaining Photonic Crystal Fiber. IEEE Photonics Journal, 2014, 6, 1-10.	1.0	12
85	Nonradiation Cellular Thermometry Based on Interfacial Thermally Induced Phase Transformation in Polymer Coating of Optical Microfiber. ACS Applied Materials & Interfaces, 2017, 9, 9024-9028.	4.0	12
86	Nb_2CT_x MXene-tilted fiber Bragg grating optofluidic system based on photothermal spectroscopy for pesticide detection. Biomedical Optics Express, 2021, 12, 7051.	1.5	12
87	Mode Splitting in ITO-Nanocoated Tilted Fiber Bragg Gratings for Vector Twist Measurement. Journal of Lightwave Technology, 2021, 39, 4151-4157.	2.7	11
88	Understanding the pH-dependent interaction between graphene oxide and single-stranded DNA through a fiber-optic interferometer. Physical Chemistry Chemical Physics, 2016, 18, 32266-32271.	1.3	10
89	High sensitivity stretched-abrupt-tapered Mach-Zehnder interferometer with optical attractive force for active microsensing applications. Applied Physics Letters, 2013, 102, .	1.5	9
90	Optical microfiber-loaded surface plasmonic TE-pass polarizer. Optics and Laser Technology, 2016, 78, 101-105.	2.2	9

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91	Improved detection sensitivity of \hat{I}^3 -aminobutyric acid based on graphene oxide interface on an optical microfiber. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 14117-14123.	1.3	9
92	Synergistic SERS enhancement and <i>in situ</i> monitoring of photocatalytic reactions in a plasmonic metal/ferroelectric hybrid system by the light-induced pyroelectric effect. <i>Journal of Materials Chemistry A</i> , 2022, 10, 14078-14089.	5.2	9
93	Smart Sensing Technologies and Their Applications in Civil Infrastructures 2016. <i>Journal of Sensors</i> , 2016, 2016, 1-2.	0.6	7
94	High-Speed and High-Resolution Microwave Photonic Interrogation of a Fiber-Optic Refractometer With Plasmonic Spectral Comb. <i>Journal of Lightwave Technology</i> , 2020, 38, 2073-2080.	2.7	7
95	Improving Accuracy and Sensitivity of a Tilted Fiber Bragg Grating Refractometer Using Cladding Mode Envelope Derivative. <i>Journal of Lightwave Technology</i> , 2023, 41, 4123-4129.	2.7	7
96	Light Coupling Between a Singlemode- Multimode-Singlemode (SMS) Fiber Structure and a Long Period Fiber Grating. <i>Journal of Lightwave Technology</i> , 2011, 29, 3683-3688.	2.7	6
97	Insight into the local near-infrared photothermal dynamics of graphene oxide functionalized polymers through optical microfibers. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 5256-5263.	1.3	6
98	Saturable Absorption and Bistable Switching of Single Mode Fiber Core-Guided Light by a 6Åm-thick, Few Layers Graphene Coating on the Cladding Surface. <i>Annalen Der Physik</i> , 2020, 532, 2000157.	0.9	6
99	Radiation mode resonances of tilted fiber Bragg gratings for high index media measurement. , 2008, , .		5
100	Low-frequency vibration measurement by a dual-frequency DBR fiber laser. <i>Photonic Sensors</i> , 2017, 7, 206-210.	2.5	5
101	Combined physical confinement and chemical adsorption on co-doped hollow TiO_2 for long-term cycle lithium-sulfur batteries. <i>Nanoscale</i> , 2022, 14, 9401-9408.	2.8	5
102	Reflective Fiber-Optic Refractometer Based on a Compact Hi-Bi Fiber Tip. <i>IEEE Sensors Journal</i> , 2013, 13, 1473-1477.	2.4	4
103	Vector Magnetometer Based On Localized Scattering Between Optical Fiber Spectral Combs and Magnetic Nanoparticles. <i>Journal of Lightwave Technology</i> , 2021, 39, 6599-6605.	2.7	4
104	Smart Sensing Technologies and Their Applications in Civil Infrastructures. <i>Journal of Sensors</i> , 2015, 2015, 1-1.	0.6	3
105	Guest Editorial - Guided Lightwaves for Sensors & Measurement Systems: Advanced Techniques and Applications. <i>Journal of Lightwave Technology</i> , 2021, 39, 3623-3625.	2.7	3
106	Microwave Photonic Interrogation of a High-Speed and High-Resolution Multipoint Refractive Index Sensor. <i>Journal of Lightwave Technology</i> , 2022, 40, 1245-1251.	2.7	3
107	Orientation-recognized rotation measurement using single polarimetric multi-mode tilted fiber grating. , 2014, , .		1
108	Surface plasmon resonance based on multi-angle tilted fiber Bragg grating for highly sensitive and wide range refractive index measurement. , 2016, , .		1

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109	Determination of the complex permittivity of ultrathin H ₂ -infused palladium coatings for plasmonic fiber optic sensors in the near infrared. , 2018, , .		1
110	Optical Fiber Sensing System for Online Monitoring Wind-induced Vibration on Power Transmission Tower Survey. , 2018, , .		1
111	Label-free Detection of Breast Cancer Cells Using a Fiber-optic Grating Sensor Functionalized with Halloysite Nanotubes. , 2019, , .		1
112	Fiber grating assisted surface plasmon resonance for biochemical and electrochemical sensing. , 2018, , .		1
113	Photothermal anemometer based on carbon nanotube-coated highly tilted fiber Bragg grating-assisted SPR sensor. , 2019, , .		1
114	Determining the Orientation of Tilted Fiber Bragg Gratings Using a Planar Substrate. Journal of Lightwave Technology, 2023, 41, 4315-4321.	2.7	1
115	Optimizing Method for Synchronization of Small-World Networks. , 2012, , .		0
116	Theoretical and Experimental Study of a Code-Division Multiplexing Fiber Bragg Grating Sensor System. Fiber and Integrated Optics, 2014, 33, 26-36.	1.7	0
117	Highly sensitive and specific detection of urinary Aquaporin-2 using tilted fiber grating sensors with Plasmonic nanocoatings. , 2016, , .		0
118	Fiber-integrated tungsten disulfide saturable absorber mirrors by magnetron sputtering technique. , 2016, , .		0
119	Fiber Grating Devices. , 2018, , 1-27.		0
120	Plasmonic Optical Fibre Sensors for Electrochemical Activities Monitoring in Energy Storage Devices. Journal of Physics: Conference Series, 2018, 1065, 202010.	0.3	0
121	Ultra-sensitive Detection of Heavy Metal Using a Fiber Grating-Assisted Plasmonic Electrochemical Sensor. , 2019, , .		0
122	Advanced Photonic Technology in Instrumentation and Measurement: IEEE IMS TC-42 in Action. IEEE Instrumentation and Measurement Magazine, 2021, 24, 28-30.	1.2	0
123	In-situ protein detection based on cut-off mode monitoring of a tilted fiber Bragg grating biosensor. , 2015, , .		0
124	Sensitivity-improved plasmonic fiber-optic refractometer based on differential measurement between cut-off and plasmonic resonances. , 2015, , .		0
125	Fiber Grating Devices. , 2019, , 1351-1377.		0
126	High speed TFBG-SPR sensing demodulation system based on microwave photonics interrogation. , 2019, , .		0

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127	Twist sensor based on surface plasmon resonance excitation using two spectral combs in one tilted fiber Bragg grating: publisher's note. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 1435.	0.9	0
128	Ultra-sensitive detection of heavy metal using a fiber grating-assisted plasmonic electrochemical sensor. , 2019, , .		0
129	Fiber-optics: a new route towards ultra-low detection limit label-free biosensing. , 2019, , .		0
130	Tilted fiber grating with metal nanocoating for calmodulin detection. , 2020, , .		0
131	The Plasmonic Optical Fiber as the Instrument: The Rising Trend of In-Situ Biomedical Measurement. IEEE Instrumentation and Measurement Magazine, 2021, 24, 70-74.	1.2	0
132	High Sensitivity Hydrogen Sensors Based on Optical Micro/Nanofiber Couplers Working at the Dispersion Turning Point. Journal of Lightwave Technology, 2023, 41, 4283-4289.	2.7	0