

Waleed S Mohammed

List of Publications by Year in descending order

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144
papers

1,735
citations

361413

20
h-index

302126

39
g-index

144
all docs

144
docs citations

144
times ranked

1459
citing authors

#	ARTICLE	IF	CITATIONS
1	All-fiber multimode interference bandpass filter. <i>Optics Letters</i> , 2006, 31, 2547.	3.3	274
2	Wavelength Tunable Fiber Lens Based on Multimode Interference. <i>Journal of Lightwave Technology</i> , 2004, 22, 469-477.	4.6	269
3	Multimode interference-based fiber-optic displacement sensor. <i>IEEE Photonics Technology Letters</i> , 2003, 15, 1129-1131.	2.5	213
4	A fingerprinting-based indoor localization system using intensity modulation of light emitting diodes. <i>Microwave and Optical Technology Letters</i> , 2012, 54, 1218-1227.	1.4	53
5	Optimization of a horizontal slot waveguide biosensor to detect DNA hybridization. <i>Applied Optics</i> , 2015, 54, 4881.	2.1	45
6	Selective excitation of the LP_{11} mode in step index fiber using a phase mask. <i>Optical Engineering</i> , 2006, 45, 074602.	1.0	37
7	Fabrication and simulation studies on D-shaped optical fiber sensor via surface plasmon resonance. <i>Journal of Modern Optics</i> , 2017, 64, 1443-1449.	1.3	36
8	Bifocal Right Ventricular Cardiac Resynchronization Therapies in Patients with Unsuccessful Percutaneous Lateral Left Ventricular Venous Access. <i>PACE - Pacing and Clinical Electrophysiology</i> , 2005, 28, S27-S30.	1.2	32
9	Single-arm three-wave interferometer for measuring dispersion of short lengths of fiber. <i>Optics Express</i> , 2007, 15, 16896.	3.4	31
10	Controlled side coupling of light to cladding mode of ZnO nanorod coated optical fibers and its implications for chemical vapor sensing. <i>Sensors and Actuators B: Chemical</i> , 2014, 202, 543-550.	7.8	31
11	Group velocity inversion in AlGaAs nanowires. <i>Optics Express</i> , 2007, 15, 12755.	3.4	30
12	Ochratoxin A detection in coffee by competitive inhibition assay using chitosan-based surface plasmon resonance compact system. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 174, 569-574.	5.0	30
13	Fiber-optic beam shaper based on multimode interference. <i>Optics Letters</i> , 2007, 32, 3170.	3.3	28
14	Additive lithography for fabrication of diffractive optics. <i>Applied Optics</i> , 2002, 41, 6176.	2.1	26
15	Fiber Bragg grating in large-mode-area fiber for high power fiber laser applications. <i>Applied Optics</i> , 2010, 49, 5297.	2.1	26
16	Compact and Low-Cost Optical Fiber Respiratory Monitoring Sensor Based on Intensity Interrogation. <i>Journal of Lightwave Technology</i> , 2017, 35, 4567-4573.	4.6	25
17	All-Fiber Laser Beam Shaping Using a Long-Period Grating. <i>IEEE Photonics Technology Letters</i> , 2008, 20, 1130-1132.	2.5	24
18	Demonstration of all-fiber WDM for multimode fiber local area networks. <i>IEEE Photonics Technology Letters</i> , 2006, 18, 244-246.	2.5	23

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19	Multiwavelength guided mode resonance sensor array. Applied Physics Express, 2015, 8, 092004.	2.4	23
20	Design and Characterization of Porous Core Polarization Maintaining Photonic Crystal Fiber for THz Guidance. Journal of Lightwave Technology, 2016, 34, 5583-5590.	4.6	21
21	Demonstration of side coupling to cladding modes through zinc oxide nanorods grown on multimode optical fiber. Optics Letters, 2013, 38, 3620.	3.3	20
22	Design of electric-field assisted surface plasmon resonance system for the detection of heavy metal ions in water. AIP Advances, 2015, 5, .	1.3	18
23	Plasmon resonance tuning of gold and silver nanoparticle-insulator multilayered composite structures for optical filters. Micro and Nano Letters, 2011, 6, 342.	1.3	15
24	Side coupling of multiple optical channels by spiral patterned zinc oxide coatings on large core plastic optical fibers. Micro and Nano Letters, 2016, 11, 122-126.	1.3	14
25	Utilizing ZnO Nanorods for CO gas detection by SPR technique. Optics Communications, 2020, 463, 125490.	2.1	14
26	Optical dynamic range maximization for humidity sensing by controlling growth of zinc oxide nanorods. Photonics and Nanostructures - Fundamentals and Applications, 2018, 30, 57-64.	2.0	13
27	Selective excitation of the TE/sub 01/ mode in hollow-glass waveguide using a subwavelength grating. IEEE Photonics Technology Letters, 2005, 17, 1441-1443.	2.5	12
28	Applied light-side coupling with optimized spiral-patterned zinc oxide nanorod coatings for multiple optical channel alcohol vapor sensing. Journal of Nanophotonics, 2016, 10, 036009.	1.0	12
29	Low-Cost Integrated Zinc Oxide Nanorod-Based Humidity Sensors for Arduino Platform. IEEE Sensors Journal, 2019, 19, 2442-2449.	4.7	12
30	Long-period grating and its application in laser beam shaping in the 10 μ m wavelength region. Applied Optics, 2009, 48, 2249.	2.1	11
31	Optical thin film filters of colloidal gold and silica nanoparticles prepared by a layer-by-layer self-assembly method. Journal of Materials Science, 2011, 46, 6877-6882.	3.7	11
32	Low-Cost Transducer Based On Surface Scattering Using Side-Polished D-Shaped Optical Fibers. IEEE Photonics Journal, 2015, 7, 1-10.	2.0	11
33	Monolithic integration of dual-layer optics into broad-area semiconductor laser diodes. Optics Letters, 2003, 28, 651.	3.3	10
34	Effect of the cladding layer on resonance response in guided mode resonance structures and its sensing applications. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 671.	2.1	10
35	Light backscattering (e.g. reflectance) by ZnO nanorods on tips of plastic optical fibres with application for humidity and alcohol vapour sensing. Micro and Nano Letters, 2016, 11, 832-836.	1.3	10
36	Single-step 3D-printed integrated optical system and its implementation for a sensing application using digital light processing technology. Applied Optics, 2020, 59, 122.	1.8	10

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37	Virtual reference interferometry: theory and experiment. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 3201.	2.1	9
38	Optical fiber-based sensor for in situ monitoring of cadmium sulfide thin-film growth. Optics Letters, 2013, 38, 5385.	3.3	9
39	Visible-Light-Induced Directed Gold Microwires by Self-Organization of Nanoparticles on <i>Aspergillus Niger</i> . Particle and Particle Systems Characterization, 2013, 30, 473-480.	2.3	9
40	Excitation of core modes through side coupling to multimode optical fiber by hydrothermal growth of ZnO nanorods for wide angle optical reception. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2232.	2.1	9
41	Fabrication and characterization of high order filter based on resonance in hybrid multi-knots microfiber structure. Optics and Laser Technology, 2016, 78, 120-124.	4.6	9
42	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.	4.1	9
43	Image-based 3D laser scanner. , 2011, , .		8
44	Realization of a polymer nanowire optical transducer by using the nanoimprint technique. Applied Optics, 2014, 53, 7487.	2.1	8
45	Demonstration of a Periodic Passband Filter Based on Coupled Microfiber Knots. IEEE Photonics Technology Letters, 2016, 28, 1061-1064.	2.5	8
46	TEMPERATURE SENSING BY SIDE COUPLING OF LIGHT THROUGH ZINC OXIDE NANORODS ON OPTICAL FIBERS. Sensors and Actuators A: Physical, 2017, 257, 15-19.	4.1	8
47	Prevention of premature failures of plate bonded flexurally strengthened RC slab using end anchor and connector. AEJ - Alexandria Engineering Journal, 2018, 57, 287-299.	6.4	8
48	Optical Fiber Biosensor toward E-coli Bacterial Detection on the Pollutant Water. Engineering Journal, 2021, 25, 1-8.	1.0	8
49	Chromatic dispersion measurements using a virtually referenced interferometer. Optics Letters, 2012, 37, 1598.	3.3	7
50	Hybrid mode calculations for novel photonic crystal fibers. Optical Engineering, 2003, 42, 2311.	1.0	6
51	Linear and quadratic dispersion characterization of millimeter-length fibers and waveguides using common-path interferometry. Optics Letters, 2007, 32, 3312.	3.3	6
52	Multimode Fiber Bragg Grating Wavelength Filter in a 10-Gb/s System. IEEE Photonics Technology Letters, 2008, 20, 584-586.	2.5	6
53	Application of Fano resonance effects in optical antennas formed by regular clusters of nanospheres. Applied Physics A: Materials Science and Processing, 2015, 118, 139-150.	2.3	6
54	A Validation Study of a Polymer Optical Fiber Sensor for Monitoring Lumbar Spine Movement. Materials, 2019, 12, 762.	2.9	6

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55	Demonstration of a Polymer-Based Single Step Waveguide by 3D Printing Digital Light Processing Technology for Isopropanol Alcohol-Concentration Sensor. <i>Photonic Sensors</i> , 2022, 12, 10-22.	5.0	6
56	All fiber on-axis coupling scheme between single mode fiber and GRIN fiber. <i>Journal of Modern Optics</i> , 2008, 55, 1033-1049.	1.3	5
57	Characterizing short dispersion-length fiber via dispersive virtual reference interferometry. <i>Optics Express</i> , 2014, 22, 14275.	3.4	5
58	Demonstration of low-cost and compact SPR optical transducer through edge light coupling. <i>Micro and Nano Letters</i> , 2017, 12, 643-646.	1.3	5
59	Chitosan-based nanomatrix for the immobilization of ochratoxin-A conjugate on surface plasmon resonance chips. <i>Colloid and Polymer Science</i> , 2018, 296, 617-625.	2.1	5
60	Portable 3-D Printed Plastic Optical Fibre Motion Sensor for Monitoring of Breathing Pattern and Respiratory Rate.. , 2019, , .		5
61	Full vectorial modal analysis of specialty fibers and their Bragg grating characterization. <i>Applied Optics</i> , 2006, 45, 3307.	2.1	4
62	Chromatic tuning of plasmon resonance of tri-layered composites: silver, gold and copper nanoparticles for optical thin film colour filter. <i>Micro and Nano Letters</i> , 2012, 7, 146.	1.3	4
63	Low cost portable sensor for real-time monitoring of lower back bending. <i>Proceedings of SPIE</i> , 2017, , .	0.8	4
64	Realization of Low-Cost Multichannel Surface Plasmon Resonance Based Optical Transducer. <i>Photonic Sensors</i> , 2018, 8, 289-302.	5.0	4
65	Study of Utilization of Embedded Metal Nanoparticles in Dielectric Thin Film for Humidity Sensing. <i>Photonic Sensors</i> , 2020, 10, 155-161.	5.0	4
66	Enhanced sensitivity of guided mode resonance sensor through super-mode excitation at near cut-off diffraction. <i>Optics and Laser Technology</i> , 2020, 132, 106517.	4.6	4
67	Numerical investigation of Au-silane functionalised optical fibre sensor for volatile organic compounds biomarker (VOCs) detection. , 2021, , .		4
68	Hollow waveguide delivery of ultrashort pulses for tissue ablation. , 2004, 5317, 22.		3
69	Monte Carlo modeling (MCML) of light propagation in skin layers for detection of fat thickness. , 2010, , .		3
70	Simultaneous dispersion measurements of multiple fiber modes using virtual reference interferometry. <i>Optics Express</i> , 2014, 22, 6391.	3.4	3
71	Demonstration of Polarization-Independent Surface Plasmon Resonance Polymer Waveguide for Refractive Index Sensing. <i>Journal of Lightwave Technology</i> , 2017, 35, 3012-3019.	4.6	3
72	All plastic optical fiber-based respiration monitoring sensor. , 2017, , .		3

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73	Additive lithography for refractive micro-optics. , 2003, 4984, 1.		2
74	Micro-optic fabrication with subdomain masking. Applied Optics, 2004, 43, 1676.	2.1	2
75	Polarization-independent on-axis light coupler for surface plasmon resonance using a concentric chirped grating. Optics Letters, 2011, 36, 3524.	3.3	2
76	Characterization of polymer nanowires fabricated using the nanoimprint method. Proceedings of SPIE, 2014, , .	0.8	2
77	Fano Resonance in Plasmonic Optical Antennas. International Journal of Behavioral and Consultation Therapy, 2016, , 191-224.	0.4	2
78	Measurement of aluminum oxide film by Fabry-Pérot interferometry and scanning electron microscopy. Journal of Saudi Chemical Society, 2017, 21, 938-942.	5.2	2
79	Programmable logic based current control of light emitting diodes using sigma-delta modulation. , 2017, , .		2
80	Effect of solvent absorption on the optical properties of 3D printed methacrylate waveguide. Optics and Laser Technology, 2021, 134, 106573.	4.6	2
81	Enhancement of light absorption using Nanoparticles Embedded Double layer Anti-Reflection Coating. Engineering Journal, 2020, 24, 53-63.	1.0	2
82	<title>Optimization of two-dimensional photonic bandgap structures</title>. , 2001, , .		1
83	Polarization converting element for minimizing the losses in cylindrical hollow waveguides. , 2005, , .		1
84	Maximizing on-axis coupling efficiency between single mode fiber and multimode specialty fibers using multi-mode interference. , 2006, , .		1
85	Measuring chromatic dispersion using single-arm interferometers: from millimeters to kilometers. Proceedings of SPIE, 2008, , .	0.8	1
86	Multi-fibre-channel wavelength converter based on passive ultrafast switch. Electronics Letters, 2008, 44, 1152.	1.0	1
87	Effects of fluorescent lighting on in vitro micropropagation of Lemna minor. Proceedings of SPIE, 2010, , .	0.8	1
88	Fiber optics devices based on selective modal excitation. , 2011, , .		1
89	Integrated diffractive optical elements for optical sensors applications. , 2011, , .		1
90	Design and fabrication of diffractive phase element for minimizing the focusing spot size beyond diffraction limit. , 2012, , .		1

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91	DEVELOPMENT OF INTEGRATED MICROFLUIDIC DEVICE FOR OPTICAL FLOW RATE SENSING. Journal of Circuits, Systems and Computers, 2013, 22, 1340016.	1.5	1
92	Study of Localized Surface Plasmon properties on metallic nano-rods towards optical antennas. , 2014, , .		1
93	Investigation of thermal effects in a resonance condition of microfibre doubleâ€knot resonators as highâ€order filter. Micro and Nano Letters, 2015, 10, 580-582.	1.3	1
94	The Influence of Current Density for Zinc Electrodeposition on Color Appearance of Black Trivalent Chromate Conversion Coatings. Key Engineering Materials, 2015, 658, 161-166.	0.4	1
95	Surface plasmon resonance-enhanced light interaction in an integrated ormocomp nanowire. Optical and Quantum Electronics, 2016, 48, 1.	3.3	1
96	Realization of spectral tunable filter based on thermal effect in microfiber structure. Optical Fiber Technology, 2016, 28, 38-41.	2.7	1
97	Optical fiber sensor system design utilizing the field programmable gate array. , 2017, , .		1
98	Label-free guided mode resonance sensor for detection of glycated hemoglobin. , 2017, , .		1
99	Boronic acid Functionalized Guided Mode Resonance Sensor for HbA1c Detection. , 2018, , .		1
100	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.	4.7	1
101	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, 4968.	3.8	1
102	Enhancement of sideâ€coupled surface plasmon resonance sensitivity by application of polymethylmethacrylate thin polymer films. Micro and Nano Letters, 2020, 15, 327-332.	1.3	1
103	Numerical Investigation of Localized Surface Plasmon Resonance (LSPR) based Sensor for Glucose Level Monitoring. , 2021, , .		1
104	Transformation optics based on unitary vectors and Fermatâ€™s principle for arbitrary spatial transformation design. Applied Optics, 2018, 57, 8632.	1.8	1
105	Low Cost Solar Power System with Open Loop Tracking for Rural and Developing Areas. Engineering Journal, 2020, 24, 65-76.	1.0	1
106	<title>Incorporation of diffractive structures on side-polished fiber arrays</title>. , 2001, , .		0
107	<title>Micro-optics design, fabrication, and integration for fiber optic devices</title>. , 2001, , .		0
108	Rigorous modal solution of a multi mode PCF using scattering matrix method. , 0, , .		0

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109	Monolithic integration of dual-layer optics into broad-area semiconductor laser diodes: erratum. Optics Letters, 2003, 28, 1280.	3.3	0
110	Additive lithography for micro and nano-photonic applications. , 0, , .		0
111	Nanofabrication of integrated diffractive optical elements. , 2003, 4984, 79.		0
112	Integrated fiber optic displacement sensor based on multimode interference. , 2003, , .		0
113	Selective coupling to higher order modes dual mode step index fiber. , 2004, , DSuA5.		0
114	Presculpting of photoresists using additive lithography. , 2004, , .		0
115	Fabrication of passively aligned micro-optics using focused ion beam. , 2004, , .		0
116	Multi-Fiber-Channel, Ultrafast, All-Optical Switch Utilizing a 2D Fresnel Lens Array. , 2007, , .		0
117	Full dispersion characterization using single-arm interferometry on a mm-length fiber. , 2007, , .		0
118	Analysis of Tunable Ridge Bragg Grating by Fluid Flow. , 2008, , .		0
119	All-fiber laser beam shaping at 1.0 μ m wavelength region in a single-mode fiber. , 2008, , .		0
120	Dual Core Fiber for Strain Sensing Applications. , 2008, , .		0
121	Numerical modeling of scanning near-field optical microscopy for fluorescence-less DNA detection. Proceedings of SPIE, 2010, , .	0.8	0
122	Creating a smart environment using optical wireless. Proceedings of SPIE, 2010, , .	0.8	0
123	Pupil masks for 2-D intensity synthesis in a high numerical aperture focusing system. , 2010, , .		0
124	Dispersion compensation for optical coherence tomography. , 2010, , .		0
125	Integrated on-axis light coupler for surface plasmon resonance using a concentric chirp grating. , 2011, , .		0
126	Optical datalink between display monitor and web camera. , 2012, , .		0

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127	Development of integrated optical characterization bench for sensing microfluidic channel. , 2012, , .		0
128	Multilayered gold/silica nanoparticulate bilayer devices using layer-by-layer self organisation for flexible bending and pressure sensing applications. Applied Physics Letters, 2014, 104, 073106.	3.3	0
129	Synthesis and characterization of hydrothermally grown zinc oxide (ZnO) nanorods for optical waveguide application. , 2015, , .		0
130	Theoretical modeling of index contrast towards all-optical switching in fiber Bragg grating. Proceedings of SPIE, 2015, , .	0.8	0
131	Demonstration of a robust and portable polymer nano-wire based test bench towards sensing applications. , 2016, , .		0
132	Plastic optical fiber for wide field-of-view optical wireless receiver. Optical Engineering, 2016, 55, 106104.	1.0	0
133	Optical beam shaping design through optimization of a radial phase mask. , 2017, , .		0
134	Results Classification in an RGB LED Based Optical Fiber Sensor System using Python. , 2018, , .		0
135	Plastic Optical Fibre Sensor System Design Using the Field Programmable Gate Array. , 2018, , .		0
136	Additive Lithography for Micro-optics Fabrication. , 2002, , .		0
137	Optical Behavior ofÂPeriodic NanostructuredÂMedia. The Electrical Engineering Handbook, 2012, , 193-238.	0.2	0
138	Utilization of ZnO nanorods growth on a tip of plastic optical fiber toward the realization of low-cost CO and CO ₂ gas sensor. Journal of Nanophotonics, 2017, 11, 1.	1.0	0
139	An approach to realisation of a Radial Phase mask using 3-D printing in transparent PLA. ECTI Transactions on Electrical Engineering, Electronics, and Communications, 2019, 16, 22-29.	0.8	0
140	Evaluation of an All Plastic 3-D Printed POF Sensor for Monitoring Spine Bending in Biomedical Applications. , 2018, , .		0
141	Modeling the dynamic optical gain in a 3D printed waveguide due to polymer swelling. , 2021, , .		0
142	3D-printed Guided Mode Resonance Readout System for Biomedical and Environmental Applications. Engineering Journal, 2021, 25, 35-43.	1.0	0
143	Multilayer for antireflection coating applications using metal nanoparticles to provide ultraviolet blocking. Journal of Nanophotonics, 2020, 14, .	1.0	0
144	Demonstration of a simple approach for subâ€µmicroliter fluorescence detection by structured PDMS cuvette with TiO ₂ nanoparticle inclusion using 3D printing technology. Micro and Nano Letters, 2022, 17, 68-75.	1.3	0