

# Rajan Jha

## List of Publications by Year in descending order

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124  
papers

5,716  
citations

81839

39  
h-index

79644

73  
g-index

125  
all docs

125  
docs citations

125  
times ranked

3375  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fiber-Optic Sensors Based on Surface Plasmon Resonance: A Comprehensive Review. IEEE Sensors Journal, 2007, 7, 1118-1129.	2.4	824
2	Sensitivity enhancement of a surface plasmon resonance based biomolecules sensor using graphene and silicon layers. Sensors and Actuators B: Chemical, 2011, 160, 623-631.	4.0	271
3	Graphene-Based Birefringent Photonic Crystal Fiber Sensor Using Surface Plasmon Resonance. IEEE Photonics Technology Letters, 2014, 26, 1092-1095.	1.3	244
4	Refractometry based on a photonic crystal fiber interferometer. Optics Letters, 2009, 34, 617.	1.7	234
5	Chalcogenide prism and graphene multilayer based surface plasmon resonance affinity biosensor for high performance. Sensors and Actuators B: Chemical, 2012, 169, 161-166.	4.0	216
6	On the Performance of Graphene-Based D-Shaped Photonic Crystal Fibre Biosensor Using Surface Plasmon Resonance. Plasmonics, 2015, 10, 1123-1131.	1.8	182
7	SPR Biosensor Based on Polymer PCF Coated With Conducting Metal Oxide. IEEE Photonics Technology Letters, 2014, 26, 595-598.	1.3	180
8	MoS <sub>2</sub> Functionalized Multicore Fiber Probes for Selective Detection of <i>Shigella</i> Bacteria Based on Localized Plasmon. Journal of Lightwave Technology, 2021, 39, 4069-4081.	2.7	144
9	High-performance sensor based on surface plasmon resonance with chalcogenide prism and aluminum for detection in infrared. Optics Letters, 2009, 34, 749.	1.7	134
10	Photonic crystal fiber interferometer for chemical vapor detection with high sensitivity. Optics Express, 2009, 17, 1447.	1.7	127
11	Sensitivity enhancement by air mediated graphene multilayer based surface plasmon resonance biosensor for near infrared. Sensors and Actuators B: Chemical, 2014, 190, 494-501.	4.0	121
12	Graphene-Based Conducting Metal Oxide Coated D-Shaped Optical Fiber SPR Sensor. IEEE Photonics Technology Letters, 2015, 27, 2437-2440.	1.3	117
13	Ultrastable in reflection photonic crystal fiber modal interferometer for accurate refractive index sensing. Applied Physics Letters, 2008, 93, .	1.5	116
14	Taper-in-taper fiber structure-based LSPR sensor for alanine aminotransferase detection. Optics Express, 2021, 29, 43793.	1.7	116
15	Water Pollutants p-Cresol Detection Based on Au-ZnO Nanoparticles Modified Tapered Optical Fiber. IEEE Transactions on Nanobioscience, 2021, 20, 377-384.	2.2	109
16	Etched multicore fiber sensor using copper oxide and gold nanoparticles decorated graphene oxide structure for cancer cells detection. Biosensors and Bioelectronics, 2020, 168, 112557.	5.3	108
17	On the electric field enhancement and performance of SPR gas sensor based on graphene for visible and near infrared. Sensors and Actuators B: Chemical, 2015, 207, 117-122.	4.0	102
18	Highly Sensitive Side-Polished Birefringent PCF-Based SPR Sensor in near IR. Plasmonics, 2016, 11, 1505-1509.	1.8	87

#	ARTICLE	IF	CITATIONS
19	Chalcogenide glass prism based SPR sensor with Ag@Au bimetallic nanoparticle alloy in infrared wavelength region. <i>Journal of Optics</i> , 2009, 11, 045502.	1.5	86
20	AZO Coated Microchannel Incorporated PCF-Based SPR Sensor: A Numerical Analysis. <i>IEEE Photonics Technology Letters</i> , 2018, 30, 1032-1035.	1.3	79
21	On the Performance of Highly Sensitive and Accurate Graphene-on-Aluminum and Silicon-Based SPR Biosensor for Visible and Near Infrared. <i>Plasmonics</i> , 2014, 9, 1113-1120.	1.8	78
22	Highly sensitive D shaped PCF sensor based on SPR for near IR. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	1.5	78
23	On the Field Enhancement and Performance of an Ultra-Stable SPR Biosensor Based on Graphene. <i>IEEE Photonics Technology Letters</i> , 2013, 25, 2156-2159.	1.3	71
24	Nano-displacement sensor based on photonic crystal fiber modal interferometer. <i>Optics Letters</i> , 2015, 40, 467.	1.7	71
25	Black Phosphorus: A New Platform for Gaseous Sensing Based on Surface Plasmon Resonance. <i>IEEE Photonics Technology Letters</i> , 2018, 30, 319-322.	1.3	71
26	Graphene oxide encapsulated gold nanoparticle based stable fibre optic sucrose sensor. <i>Sensors and Actuators B: Chemical</i> , 2015, 221, 835-841.	4.0	65
27	Detection of L-Cysteine Using Silver Nanoparticles and Graphene Oxide Immobilized Tapered SMS Optical Fiber Structure. <i>IEEE Sensors Journal</i> , 2020, 20, 11372-11379.	2.4	60
28	Ultrasensitive THz @ Plasmonics gaseous sensor using doped graphene. <i>Sensors and Actuators B: Chemical</i> , 2016, 227, 291-295.	4.0	58
29	Highly Sensitive Plasmonic Temperature Sensor Based on Photonic Crystal Surface Plasmon Waveguide. <i>Plasmonics</i> , 2013, 8, 515-521.	1.8	57
30	Sensitivity enhancement of surface plasmon resonance sensor using hybrid configuration of 2D materials over bimetallic layer of Cu@Ni. <i>Optics Communications</i> , 2020, 463, 125337.	1.0	57
31	Fabrication and characterization of a surface plasmon resonance based fiber-optic sensor for bittering component@Naringin. <i>Sensors and Actuators B: Chemical</i> , 2006, 115, 344-348.	4.0	53
32	Graphene based surface plasmon resonance gas sensor for terahertz. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	1.5	50
33	High-Performance Bimetallic SPR Sensor Based on Periodic-Multilayer-Waveguides. <i>IEEE Photonics Technology Letters</i> , 2011, 23, 1448-1450.	1.3	49
34	Micrometer Wire Assisted Inline Mach@Zehnder Interferometric Curvature Sensor. <i>IEEE Photonics Technology Letters</i> , 2016, 28, 31-34.	1.3	44
35	Numerical simulation on the performance analysis of a graphene-coated optical fiber plasmonic sensor at anti-crossing. <i>Applied Optics</i> , 2017, 56, 3510.	2.1	43
36	Electric field enhancement in surface plasmon resonance bimetallic configuration based on chalcogenide prism. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	42

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37	Ultrasensitive Plasmonic Imaging Sensor Based on Graphene and Silicon. IEEE Photonics Technology Letters, 2013, 25, 122-125.	1.3	42
38	Tamm-plasmon and surface-plasmon hybrid-mode based refractometry in photonic bandgap structures. Optics Letters, 2014, 39, 896.	1.7	42
39	Embedded optical micro/nano-fibers for stable devices. Optics Letters, 2010, 35, 571.	1.7	41
40	Localized Plasmon-Based Multicore Fiber Biosensor for Acetylcholine Detection. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.	2.4	41
41	Low index dielectric mediated surface plasmon resonance sensor based on graphene for near infrared measurements. Journal Physics D: Applied Physics, 2014, 47, 385102.	1.3	40
42	Surface Plasmon Resonance-Based Tapered Fiber Optic Sensor: Sensitivity Enhancement by Introducing a Teflon Layer Between Core and Metal Layer. Plasmonics, 2008, 3, 151-156.	1.8	39
43	Dielectric over-layer assisted graphene, its oxide and MoS <sub>2</sub> -based fibre optic sensor with high field enhancement. Journal Physics D: Applied Physics, 2017, 50, 405112.	1.3	39
44	On the performance of Tamm-plasmon and surface-plasmon hybrid-mode refractive-index sensor in metallo-dielectric heterostructure configuration. Sensors and Actuators B: Chemical, 2015, 206, 443-448.	4.0	34
45	Effect of fiber core dopant concentration on the performance of surface plasmon resonance-based fiber optic sensor. Sensors and Actuators A: Physical, 2009, 150, 212-217.	2.0	33
46	Inline Microcavity-Based PCF Interferometer for Refractive Index and Temperature Sensing. IEEE Photonics Technology Letters, 2015, 27, 1325-1328.	1.3	33
47	Tapered Fiber Attached Nitrile Diaphragm-Based Acoustic Sensor. Journal of Lightwave Technology, 2017, 35, 5411-5417.	2.7	33
48	Fabry-Pérot based strain insensitive photonic crystal fiber modal interferometer for inline sensing of refractive index and temperature. Applied Optics, 2015, 54, 10479.	2.1	32
49	Industrial Fluid Flow Measurement Using Optical Fiber Sensors: A Review. IEEE Sensors Journal, 2021, 21, 7130-7144.	2.4	29
50	Hypersensitive and Selective Interferometric Nose for Ultratrace Ammonia Detection with Fast Response Utilizing PANI@SnO <sub>2</sub> Nanocomposite. ACS Photonics, 2018, 5, 4402-4412.	3.2	28
51	Hypersensitive and selective biosensing based on microfiber interferometry and molecular imprinted nanoparticles. Biosensors and Bioelectronics, 2019, 141, 111347.	5.3	28
52	Design considerations for surface plasmon resonance based detection of human blood group in near infrared. Journal of Applied Physics, 2010, 107, .	1.1	27
53	Experimental and theoretical studies on localized surface plasmon resonance based fiber optic sensor using graphene oxide coated silver nanoparticles. Journal Physics D: Applied Physics, 2016, 49, 285101.	1.3	26
54	Mach-Zehnder interferometer based on tapered PCF with an up-tapered joint for curvature, strain and temperature interrogation. Journal of Optics (United Kingdom), 2016, 18, 105002.	1.0	23

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55	Design of a silicon-based plasmonic biosensor chip for human blood-group identification. <i>Sensors and Actuators B: Chemical</i> , 2010, 145, 200-204.	4.0	22
56	Artificial Receptor-Based Optical Sensors (AROS): Ultra-Sensitive Detection of Urea. <i>Advanced Photonics Research</i> , 2021, 2, 2100044.	1.7	22
57	Graphene Oxide Coated PCF Interferometer for Enhanced Strain Sensitivity. <i>Journal of Lightwave Technology</i> , 2017, 35, 5385-5390.	2.7	21
58	Design considerations for surface plasmon resonance-based fiber-optic detection of human blood group. <i>Journal of Biomedical Optics</i> , 2009, 14, 064041.	1.4	19
59	PCF Modal Interferometer Based on Macrobending for Refractive Index Sensing. <i>IEEE Sensors Journal</i> , 2015, 15, 5291-5295.	2.4	19
60	Metal wire waveguide based all plasmonic refractive index sensor for terahertz frequencies. <i>Sensors and Actuators B: Chemical</i> , 2016, 225, 115-120.	4.0	19
61	Highly accurate and sensitive surface plasmon resonance sensor based on channel photonic crystal waveguides. <i>Sensors and Actuators B: Chemical</i> , 2011, 157, 246-252.	4.0	18
62	Hearing the Sounds of Aquatic Life Using Optical Fiber Microtip-Based Hydrophone. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020, 69, 4015-4020.	2.4	18
63	Fabry-Perot Cavity on Demand for Hysteresis Free Interferometric Sensors. <i>Journal of Lightwave Technology</i> , 2016, 34, 3188-3193.	2.7	17
64	Micro-tip Cantilever as Low Frequency Microphone. <i>Scientific Reports</i> , 2018, 8, 12701.	1.6	16
65	Metal oxides as buffer layers for CZTS based solar cells: A numerical analysis by SCAPS-1D software. <i>Optical Materials</i> , 2022, 131, 112734.	1.7	16
66	Design considerations and propagation characteristics of channel Bragg-plasmon-coupled-waveguides. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	15
67	Microfiber-Wrapped Bi-Conical-Tapered SMF for Curvature Sensing. <i>IEEE Sensors Journal</i> , 2016, 16, 3649-3652.	2.4	15
68	Intensity modulated SMF cascaded tapers with a hollow core PCF based microcavity for curvature sensing. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 035006.	1.0	15
69	Vortex Shedding Optical Flowmeter based on Photonic Crystal Fiber. <i>Scientific Reports</i> , 2019, 9, 8313.	1.6	15
70	Plexcitonic nose based on an organic semiconductor. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	15
71	Photonic crystal fiber microcavity based bend and temperature sensor using micro fiber. <i>Sensors and Actuators A: Physical</i> , 2016, 244, 24-29.	2.0	14
72	Square Knot Resonator-Based Compact Bending Sensor. <i>IEEE Photonics Technology Letters</i> , 2018, 30, 1649-1652.	1.3	14

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73	Reconfigurable Optical Magnetometer for Static and Dynamic Fields. <i>Advanced Optical Materials</i> , 2021, 9, 2001574.	3.6	14
74	Guided-Mode Analysis of Tamm-Plasmon Polariton at Metal-Heterostructure Dielectric Interface. <i>Journal of Lightwave Technology</i> , 2014, 32, 1221-1227.	2.7	13
75	Graphene-Oxide Coated Ag-Island-Based Inline LSPR Fiber Sensor. <i>IEEE Photonics Technology Letters</i> , 2018, 30, 1667-1670.	1.3	13
76	Non-graphene two-dimensional nanosheets for temperature sensing based on microfiber interferometric platform: Performance analysis. <i>Sensors and Actuators A: Physical</i> , 2019, 289, 180-187.	2.0	13
77	Design considerations for plasmonic-excitation based optical detection of liquid and gas media in infrared. <i>Sensors and Actuators A: Physical</i> , 2011, 165, 271-275.	2.0	12
78	Synthesized Fe <sub>3</sub> O <sub>4</sub> Nanoflowers Coated Microfiber as Magnetometer. <i>IEEE Photonics Technology Letters</i> , 2018, 30, 1925-1928.	1.3	12
79	In Reflection Metal-Coated Diaphragm Microphone Using PCF Modal Interferometer. <i>Journal of Lightwave Technology</i> , 2021, 39, 3974-3980.	2.7	12
80	Underwater low acoustic frequency detection based on in-line Mach-Zehnder interferometer. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, 570.	0.9	12
81	Platinum Layers Sandwiched Between Black Phosphorous and Graphene for Enhanced SPR Sensor Performance. <i>Plasmonics</i> , 2022, 17, 213-222.	1.8	10
82	NiFe <sub>2</sub> O <sub>4</sub> Ferrofluid to Detect Magnetic Field Using Microfiber Interferometry. <i>IEEE Sensors Journal</i> , 2022, 22, 4014-4021.	2.4	10
83	S-shaped microfiber based diaphragm supported optical microphone. <i>JPhys Photonics</i> , 2019, 1, 025005.	2.2	9
84	Sensitivity enhancement of SPR sensor using Ni/ZnO nanocomposite assisted with graphene. <i>Optical and Quantum Electronics</i> , 2021, 53, 1.	1.5	9
85	Bound States in the Continuum Empower Subwavelength Gratings for Refractometers in Visible. <i>Photonics</i> , 2022, 9, 292.	0.9	9
86	Microfiber Assisted Highly Birefringent PCF-Based Interferometric Sensors. <i>IEEE Sensors Journal</i> , 2017, 17, 1342-1346.	2.4	8
87	UV Light Detection Using Resonance Frequency of Piezoelectric Quartz Crystal. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 2791-2795.	1.6	8
88	Small angles vector magnetometer based on anisotropic ferromagnetic nanofluid functionalized fiber interferometer. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 405102.	1.3	8
89	On the high performance of channel photonic crystal waveguide comprising different plasmonic active metals. <i>Applied Physics B: Lasers and Optics</i> , 2012, 108, 629-634.	1.1	7
90	Bidirectional Interferometric Flowmeter With Linear Sensitivity and Large Dynamic Range. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-6.	2.4	7

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91	Multipoint monitoring of amplitude, frequency, and phase of vibrations using concatenated modal interferometers. <i>Scientific Reports</i> , 2022, 12, 3798.	1.6	7
92	Temperature insensitive PCF interferometer coated with graphene oxide tip sensor. <i>IEEE Photonics Technology Letters</i> , 2016, , 1-1.	1.3	6
93	On the propagation characteristics and performance of graphene oxide based fiber optic plasmonic sensor. <i>Materials Research Express</i> , 2019, 6, 015702.	0.8	6
94	A terahertz Brewster switch based on superconductor hyperbolic metamaterial. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	5
95	Effect of chalcogenide glass and plasmonic metal on electric field enhancement in surface plasmon resonance sensor. , 2012, , .		4
96	Fabrication of Inline Micro Air Cavity With Choice-Based Dimensions. <i>IEEE Photonics Technology Letters</i> , 2017, 29, 1147-1150.	1.3	4
97	Unidirectional Photon Coupling Using Asymmetric Diamond Emitters with Enhanced Spontaneous Emission. <i>Advanced Quantum Technologies</i> , 2022, 5, .	1.8	4
98	Mode-coupling Between Surface Plasmon Modes and Bandgap-Guided Modes: A Comprehensive Study and Applications. <i>Journal of Lightwave Technology</i> , 2013, 31, 3518-3524.	2.7	3
99	Enhancing performance of SPR sensor through electric field intensity enhancement using graphene. , 2013, , .		3
100	THz mode-coupling in photonic-crystalâ€“surface-plasmon-coupled waveguides. <i>Applied Physics B: Lasers and Optics</i> , 2015, 118, 387-392.	1.1	3
101	Localized Plasmon-Based Optical Fiber Sensing Platform for Operation in Infrared. <i>IEEE Photonics Technology Letters</i> , 2016, 28, 2054-2057.	1.3	3
102	Cascaded Taper Collapsed Region-Based PCF Sensor: Wavelength and Intensity Interrogation. <i>IEEE Sensors Journal</i> , 2017, 17, 8338-8342.	2.4	3
103	Enlarge-Tapered, Micro-Air Channeled Cavity for Refractive Index Sensing in SMF. <i>Journal of Lightwave Technology</i> , 2019, 37, 5422-5427.	2.7	3
104	Bidirectional coupling of diamond emitters to optical nanowire: tunable and efficient. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, F170.	0.9	3
105	SURFACE PLASMON RESONANCE IMAGING BIOSENSOR BASED ON GRAPHENE MULTILAYER. , 2012, , .		2
106	Ultrasensitive Displacement Sensor Based on Photonic Crystal Fiber Modal Interferometer. , 2014, , .		2
107	High-sensitivity photonic crystal fiber interferometer for chemical vapors detection. , 2009, , .		1
108	Tailoring surface plasmon-exciton polariton for high-performance refractive index monitoring. <i>Journal of Optics (United Kingdom)</i> , 2021, 23, 045001.	1.0	1

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109	Highly accurate surface plasmon resonance based fiber optic sensor as a human blood group identifier. , 2010, , .		1
110	Dual Tapered Photonic Crystal Fiber Based Curvature and Temperature Sensor. , 2016, , .		1
111	Fiber Cantilever Based Acoustic Sensor. , 2017, , .		1
112	Highly versatile in-reflection photonic crystal fibre interferometer. Proceedings of SPIE, 2009, , .	0.8	0
113	Channel Bragg-plasmon coupled waveguide. , 2010, , .		0
114	Photonic crystal surface plasmon waveguides sensor for high and accurate temperature measurement. , 2012, , .		0
115	Avoided-crossings in dispersion properties of photonic-crystal-surface-plasmon-waveguides. , 2012, , .		0
116	Plasmonic sensor based on H shaped optical fiber. , 2013, , .		0
117	PCF based graphene coated SPR biosensor. , 2013, , .		0
118	Photonic Crystal Fiber Based Interferometric Sensor with Macro Bending. , 2014, , .		0
119	Accurate refractive-index sensing with Tamm-plasmon and surface-plasmon based hybrid configurations. , 2014, , .		0
120	Miniature Multi-parameter sensors based on Micro-fibers and Microstructure fibers. , 2016, , .		0
121	Fabrication and Theoretical Analysis of Square Knot Resonator for Sensing Applications. , 2017, , .		0
122	Fabrication of Fiber Based Inline Micro Air Cavities with Tunable Geometrical Parameters. , 2017, , .		0
123	Photonic Crystal Fiber based Magnetic Field Sensor realizing Mach Zehnder interference. , 2018, , .		0
124	Periodic Collapsed Solid-Core PCF Based Modal Interferometer for Chemical Sensing. Frontiers in Sensors, 2022, 3, .	1.7	0