

Banshi Dhar Gupta

List of Publications by Year in descending order

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104
papers

5,632
citations

47006

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104
all docs

104
docs citations

104
times ranked

4510
citing authors

#	ARTICLE	IF	CITATIONS
1	Portable fiber-optic SPR platform for the detection of NS1-antigen for dengue diagnosis. Biosensors and Bioelectronics, 2022, 196, 113720.	10.1	23
2	Optical Biomedical Diagnostics Using Lab-on-Fiber Technology: A Review. Photonics, 2022, 9, 86.	2.0	14
3	Palladium nanoparticles embedded PPy shell coated CNTs towards a high performance hydrazine detection through optical fiber plasmonic sensor. Sensors and Actuators B: Chemical, 2021, 326, 128717.	7.8	20
4	Highly selective SPR based fiber optic sensor for the detection of hydrogen peroxide. Sensors and Actuators B: Chemical, 2021, 329, 129062.	7.8	41
5	Surface plasmon resonance based fiber optic potassium ion disposable sensing probe for soil testing. Optical Fiber Technology, 2021, 64, 102573.	2.7	2
6	Fiber optic surface plasmon resonance based disposable probe for the detection of phosphate ion in soil. Optik, 2021, 243, 167484.	2.9	4
7	Nanotechnology-based fiber-optic chemical and biosensors. , 2020, , 163-195.		10
8	Lossy Mode Resonance Based Fiber Optic Creatinine Sensor Fabricated Using Molecular Imprinting Over Nanocomposite of MoS ₂ /SnO ₂ . IEEE Sensors Journal, 2020, 20, 4251-4259.	4.7	28
9	Fiber-Optic Plasmonic Sensor Utilizing CTAB-Functionalized ZnO Nanoparticle-Decorated Carbon Nanotubes on Silver Films for the Detection of Catechol in Wastewater. ACS Applied Nano Materials, 2020, 3, 2582-2593.	5.0	33
10	Lossy mode resonance-based highly sensitive fiber optic refractive index sensor using the bilayer of FTO/HfO ₂ for operation in the visible region. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 3841.	2.1	5
11	Carbon-Based Nanomaterials for Plasmonic Sensors: A Review. Sensors, 2019, 19, 3536.	3.8	55
12	A highly selective LSPR biosensor for the detection of taurine realized on optical fiber substrate and gold nanoparticles. Optical Fiber Technology, 2019, 52, 101962.	2.7	28
13	Highly sensitive and selective localized surface plasmon resonance biosensor for detecting glutamate realized on optical fiber substrate using gold nanoparticles. Photonics and Nanostructures - Fundamentals and Applications, 2019, 37, 100730.	2.0	10
14	Ultra-selective fiber optic SPR platform for the sensing of dopamine in synthetic cerebrospinal fluid incorporating permselective nafion membrane and surface imprinted MWCNTs-PPy matrix. Biosensors and Bioelectronics, 2019, 133, 205-214.	10.1	62
15	Fiber optic surface plasmon resonance based lactate sensor using co-immobilization of lactate dehydrogenase and NAD ⁺ . Optical Fiber Technology, 2019, 49, 22-27.	2.7	11
16	Optical Fiber Probe for the Selective Plasmonic Sensing of Catechol Utilizing ZnO Decorated MWCNTs. , 2019, , .		0
17	Highly sensitive surface plasmon resonance based fiber optic pH sensor utilizing rGO-Pani nanocomposite prepared by in situ method. Sensors and Actuators B: Chemical, 2019, 283, 632-642.	7.8	55
18	Experimental studies on the sensitivity of the propagating and localized surface plasmon resonance-based tapered fiber optic refractive index sensors. Applied Optics, 2019, 58, 4149.	1.8	26

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19	LSPR- and SPR-Based Fiber-Optic Cholesterol Sensor Using Immobilization of Cholesterol Oxidase Over Silver Nanoparticles Coated Graphene Oxide Nanosheets. <i>IEEE Sensors Journal</i> , 2018, 18, 1039-1046.	4.7	73
20	Fibre Optic SPR Sensor Using Functionalized CNTs for the Detection of SMX: Comparison with Enzymatic Approach. <i>Plasmonics</i> , 2018, 13, 189-202.	3.4	15
21	Urinary p-cresol diagnosis using nanocomposite of ZnO/MoS ₂ and molecular imprinted polymer on optical fiber based lossy mode resonance sensor. <i>Biosensors and Bioelectronics</i> , 2018, 101, 135-145.	10.1	67
22	Xanthine oxidase functionalized Ta ₂ O ₅ nanostructures as a novel scaffold for highly sensitive SPR based fiber optic xanthine sensor. <i>Biosensors and Bioelectronics</i> , 2018, 99, 637-645.	10.1	40
23	[INVITED] Recent advances in surface plasmon resonance based fiber optic chemical and biosensors utilizing bulk and nanostructures. <i>Optics and Laser Technology</i> , 2018, 101, 144-161.	4.6	167
24	Surface Plasmon Resonance Based Highly Selective Fiber Optic Dopamine Sensor Fabricated Using Molecular Imprinted GNP/SnO ₂ Nanocomposite. <i>Journal of Lightwave Technology</i> , 2018, 36, 5956-5962.	4.6	22
25	Lossy Mode Resonance-Based Fiber Optic Sensor for the Detection of As (III) Using α -Fe ₂ O ₃ /SnO ₂ Core-Shell Nanostructures. <i>IEEE Sensors Journal</i> , 2018, 18, 7077-7084.	4.7	9
26	Fiber-Optic SPR Based Acetylcholine Biosensor Using Enzyme Functionalized Ta ₂ O ₅ Nanoflakes for Alzheimer's Disease Diagnosis. <i>Journal of Lightwave Technology</i> , 2018, 36, 4018-4024.	4.6	43
27	Semiconductor metal oxide/polymer based fiber optic lossy mode resonance sensors: A contemporary study. <i>Optical Fiber Technology</i> , 2018, 45, 146-166.	2.7	36
28	Ion-imprinted nanoparticles for the concurrent estimation of Pb(II) and Cu(II) ions over a two channel surface plasmon resonance-based fiber optic platform. <i>Journal of Biomedical Optics</i> , 2018, 23, 1.	2.6	7
29	Fiber optic surface-plasmon-resonance-based highly sensitive arsenic sensor prepared using α -Fe ₂ O ₃ /SnO ₂ core-shell nanostructure with optimized probe parameters. <i>Applied Optics</i> , 2018, 57, 10466.	1.8	10
30	Influence of Oxide Overlayer on the Performance of a Fiber Optic SPR Sensor With Al/Cu Layers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2017, 23, 81-88.	2.9	57
31	Simultaneous tuning of electric field intensity and structural properties of ZnO: Graphene nanostructures for FOSPR based nicotine sensor. <i>Biosensors and Bioelectronics</i> , 2017, 91, 762-769.	10.1	21
32	Surface plasmon resonance based fiber optic trichloroacetic acid sensor utilizing layer of silver nanoparticles and chitosan doped hydrogel. <i>Nanotechnology</i> , 2017, 28, 065503.	2.6	29
33	A novel method of SPR based SnO ₂ : GNP nano-hybrid decorated optical fiber platform for hexachlorobenzene sensing. <i>Sensors and Actuators B: Chemical</i> , 2017, 246, 927-936.	7.8	13
34	Integrating nanohybrid membranes of reduced graphene oxide: chitosan: silica sol gel with fiber optic SPR for caffeine detection. <i>Nanotechnology</i> , 2017, 28, 195502.	2.6	34
35	Ultrasensitive, highly selective, and real-time detection of protein using functionalized CNTs as MIP platform for FOSPR-based biosensor. <i>Nanotechnology</i> , 2017, 28, 355503.	2.6	19
36	Fiber optic surface plasmon resonance based hexachlorobenzene sensor exploiting layer-by-layer coatings of GNP/SnO ₂ dendrites nanocomposite. <i>Materials Research Express</i> , 2017, 4, 115022.	1.6	7

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37	Highly sensitive and selective erythromycin nanosensor employing fiber optic SPR/ERY imprinted nanostructure: Application in milk and honey. <i>Biosensors and Bioelectronics</i> , 2017, 90, 516-524.	10.1	69
38	Silver nanoparticle nodule ZnO nanowedge fetched novel FO-LMR based H ₂ O ₂ biosensor: A twin regime sensor for in-vivo applications and H ₂ O ₂ generation analysis from polyphenolic daily devouring beverages. <i>Sensors and Actuators B: Chemical</i> , 2017, 241, 129-145.	7.8	17
39	A contemporary approach for design and characterization of fiber-optic-cortisol sensor tailoring LMR and ZnO/PPY molecularly imprinted film. <i>Biosensors and Bioelectronics</i> , 2017, 87, 178-186.	10.1	64
40	A highly sensitive and distinctly selective d-sorbitol biosensor using SDH enzyme entrapped Ta ₂ O ₅ nanoflowers assembly coupled with fiber optic SPR. <i>Sensors and Actuators B: Chemical</i> , 2017, 242, 810-817.	7.8	24
41	Performance analysis of zinc oxide-implemented lossy mode resonance-based optical fiber refractive index sensor utilizing thin film/nanostructure. <i>Applied Optics</i> , 2017, 56, 5716.	1.8	39
42	Localized surface plasmon resonance-based fiber-optic sensor for the detection of triacylglycerides using silver nanoparticles. <i>Journal of Biomedical Optics</i> , 2017, 22, 1.	2.6	23
43	SPR Based Fiber Optic Quercetin Biosensor Utilizing rGO: PPy: Chitosan Nanocomposite Network. , 2017, , .		1
44	Surface Plasmon Resonance-Based Fiber Optic Sensors Utilizing Molecular Imprinting. <i>Sensors</i> , 2016, 16, 1381.	3.8	90
45	Tuning the field distribution and fabrication of an Al@ZnO core-shell nanostructure for a SPR-based fiber optic phenyl hydrazine sensor. <i>Nanotechnology</i> , 2016, 27, 215501.	2.6	15
46	A localized and propagating SPR, and molecular imprinting based fiber-optic ascorbic acid sensor using an <i>in situ</i> polymerized polyaniline-Ag nanocomposite. <i>Nanotechnology</i> , 2016, 27, 345501.	2.6	39
47	Fiber Optic SPR-Based Uric Acid Biosensor Using Uricase Entrapped Polyacrylamide Gel. <i>IEEE Photonics Technology Letters</i> , 2016, 28, 2050-2053.	2.5	44
48	FO-SPR based dextrose sensor using Ag/ZnO nanorods/GOx for insulinoma detection. <i>Biosensors and Bioelectronics</i> , 2016, 85, 986-995.	10.1	43
49	A lossy mode resonance-based fiber optic hydrogen gas sensor for room temperature using coatings of ITO thin film and nanoparticles. <i>Measurement Science and Technology</i> , 2016, 27, 045103.	2.6	35
50	Simultaneous estimation of vitamin K1 and heparin with low limit of detection using cascaded channels fiber optic surface plasmon resonance. <i>Biosensors and Bioelectronics</i> , 2016, 86, 48-55.	10.1	30
51	Surface plasmon resonance based optical fiber sensor for atrazine detection using molecular imprinting technique. <i>Sensors and Actuators B: Chemical</i> , 2016, 227, 204-211.	7.8	55
52	Fiber optic profenofos sensor based on surface plasmon resonance technique and molecular imprinting. <i>Biosensors and Bioelectronics</i> , 2016, 79, 150-157.	10.1	100
53	SPR based fiber-optic sensor with enhanced electric field intensity and figure of merit using different single and bimetallic configurations. <i>Optics Communications</i> , 2016, 367, 23-34.	2.1	54
54	Theoretical modeling of a self-referenced dual mode SPR sensor utilizing indium tin oxide film. <i>Optics Communications</i> , 2016, 369, 131-137.	2.1	40

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55	Surface plasmon resonance based fiber optic ethanol sensor using layers of silver/silicon/hydrogel entrapped with ADH/NAD. <i>Sensors and Actuators B: Chemical</i> , 2016, 230, 485-492.	7.8	73
56	SPR and Molecular Imprinting-Based Fiber-Optic Melamine Sensor With High Sensitivity and Low Limit of Detection. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2016, 22, 172-178.	2.9	17
57	Tailoring the Field Distribution of ZnO by Polyaniline for SPR-Based Fiber Optic Detection of Hardness of the Drinking Water. <i>Plasmonics</i> , 2016, 11, 483-492.	3.4	12
58	Surface Plasmon Resonance-Based Fiber Optic Sensor for the Detection of Low Concentrations of Ammonia Gas. <i>IEEE Sensors Journal</i> , 2015, 15, 1235-1239.	4.7	57
59	Fiber-optic ammonia sensor using Ag/SnO ₂ thin films: optimization of thickness of SnO ₂ film using electric field distribution and reaction factor. <i>Applied Optics</i> , 2015, 54, 8712.	2.1	37
60	Zinc oxide thin film/nanorods based lossy mode resonance hydrogen sulphide gas sensor. <i>Materials Research Express</i> , 2015, 2, 095003.	1.6	22
61	Surface plasmon resonance based fiber optic detection of chlorine utilizing polyvinylpyrrolidone supported zinc oxide thin films. <i>Analyst</i> , The, 2015, 140, 1863-1870.	3.5	23
62	SPR based fiber optic sensor for refractive index sensing with enhanced detection accuracy and figure of merit in visible region. <i>Optics Communications</i> , 2015, 344, 86-91.	2.1	142
63	Gas-Clad Two-Way Fiber Optic SPR Sensor: a Novel Approach for Refractive Index Sensing. <i>Plasmonics</i> , 2015, 10, 1071-1076.	3.4	26
64	Localized and propagating surface plasmon resonance based fiber optic sensor for the detection of tetracycline using molecular imprinting. <i>Materials Research Express</i> , 2015, 2, 035007.	1.6	43
65	Fiber optic SPR sensor for the detection of melamine using molecular imprinting. <i>Sensors and Actuators B: Chemical</i> , 2015, 212, 404-410.	7.8	94
66	Surface Plasmon Resonance-Based Fiber Optic Sensor for the Detection of Ascorbic Acid Utilizing Molecularly Imprinted Polyaniline Film. <i>Plasmonics</i> , 2015, 10, 1853-1861.	3.4	37
67	Fiber optic manganese ions sensor using SPR and nanocomposite of ZnO@polypyrrole. <i>Sensors and Actuators B: Chemical</i> , 2015, 220, 903-909.	7.8	57
68	Surface Plasmon Resonance-Based Fiber Optic Chlorine Gas Sensor Utilizing Indium-Oxide-Doped Tin Oxide Film. <i>Journal of Lightwave Technology</i> , 2015, 33, 2770-2776.	4.6	26
69	Fabrication and Characterization of a SPR Based Fiber Optic Sensor for the Detection of Chlorine Gas Using Silver and Zinc Oxide. <i>Materials</i> , 2015, 8, 2204-2216.	2.9	56
70	Surface Plasmon Resonance-Based Fiber Optic Methane Gas Sensor Utilizing Graphene-Carbon Nanotubes-Poly(Methyl Methacrylate) Hybrid Nanocomposite. <i>Plasmonics</i> , 2015, 10, 1147-1157.	3.4	134
71	Fiber optic hydrogen sulfide gas sensors utilizing ZnO thin film/ZnO nanoparticles: A comparison of surface plasmon resonance and lossy mode resonance. <i>Sensors and Actuators B: Chemical</i> , 2015, 218, 196-204.	7.8	138
72	Performance Analysis of Bimetallic Layer With Zinc Oxide for SPR-Based Fiber Optic Sensor. <i>Journal of Lightwave Technology</i> , 2015, 33, 4565-4571.	4.6	62

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73	Versatile SERS sensing based on black silicon. <i>Optics Express</i> , 2015, 23, 6763.	3.4	71
74	Detection of heavy metal ions in contaminated water by surface plasmon resonance based optical fibre sensor using conducting polymer and chitosan. <i>Food Chemistry</i> , 2015, 166, 568-575.	8.2	222
75	Surface plasmon resonance based fiber optic hydrogen sulphide gas sensor utilizing nickel oxide doped ITO thin film. <i>Sensors and Actuators B: Chemical</i> , 2014, 195, 215-222.	7.8	75
76	A novel approach for simultaneous sensing of urea and glucose by SPR based optical fiber multianalyte sensor. <i>Analyst, The</i> , 2014, 139, 1449.	3.5	72
77	Surface plasmon resonance based fiber optic sensor for the detection of CrO ₄ ²⁻ using Ag/ITO/hydrogel layers. <i>Analytical Methods</i> , 2014, 6, 5191.	2.7	24
78	SPR based fibre optic ammonia gas sensor utilizing nanocomposite film of PMMA/reduced graphene oxide prepared by in situ polymerization. <i>Sensors and Actuators B: Chemical</i> , 2014, 199, 190-200.	7.8	227
79	Sensitivity enhancement of a surface plasmon resonance based fibre optic refractive index sensor utilizing an additional layer of oxides. <i>Sensors and Actuators A: Physical</i> , 2013, 193, 136-140.	4.1	127
80	Surface Plasmon Resonance Based Fiber Optic Ammonia Sensor Utilizing Bromocresol Purple. <i>Plasmonics</i> , 2013, 8, 779-784.	3.4	33
81	Fiber optic SPR sensor for the detection of 3-pyridinecarboxamide (vitamin B ₃) using molecularly imprinted hydrogel. <i>Sensors and Actuators B: Chemical</i> , 2013, 177, 279-285.	7.8	67
82	Optical fiber sensor for the detection of tetracycline using surface plasmon resonance and molecular imprinting. <i>Analyst, The</i> , 2013, 138, 7254.	3.5	69
83	Surface plasmon resonance-based fiber optic hydrogen sulphide gas sensor utilizing Cu-ZnO thin films. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 11868.	2.8	122
84	SPR based fibre optic biosensor for phenolic compounds using immobilization of tyrosinase in polyacrylamide gel. <i>Sensors and Actuators B: Chemical</i> , 2013, 186, 388-395.	7.8	63
85	Surface plasmon resonance based fiber optic sensor for the detection of triacylglycerides using gel entrapment technique. <i>Sensors and Actuators B: Chemical</i> , 2013, 188, 917-922.	7.8	28
86	Fabrication and characterization of a surface plasmon resonance based fiber optic sensor using gel entrapment technique for the detection of low glucose concentration. <i>Sensors and Actuators B: Chemical</i> , 2013, 177, 589-595.	7.8	99
87	Surface plasmon resonance based fiber optic pH sensor utilizing Ag/ITO/Al/hydrogel layers. <i>Analyst, The</i> , 2013, 138, 2640.	3.5	77
88	Surface plasmon resonance based fiber optic hydrogen peroxide sensor using polymer embedded nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2013, 182, 330-335.	7.8	54
89	Surface plasmon resonance based fiber optic refractive index sensor utilizing silicon layer: Effect of doping. <i>Optics Communications</i> , 2013, 286, 171-175.	2.1	32
90	Surface plasmon resonance based fiber optic refractive index sensor utilizing Cu/ZnO layer. , 2013, , .		1

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91	SPR based fiber optic two channel sensor in near infrared (NIR) region. AIP Conference Proceedings, 2013, , .	0.4	2
92	Fabrication and characterization of a highly sensitive surface plasmon resonance based fiber optic pH sensor utilizing high index layer and smart hydrogel. Sensors and Actuators B: Chemical, 2012, 173, 268-273.	7.8	67
93	Surface Plasmon Resonance-Based Fiber-Optic Hydrogen Gas Sensor Utilizing Indiumâ€“Tin Oxide (ITO) Thin Films. Plasmonics, 2012, 7, 627-632.	3.4	54
94	Surface-Plasmon-Resonance-Based Fiber-Optic Sensor for the Detection of Low-Density Lipoprotein. IEEE Sensors Journal, 2012, 12, 3460-3466.	4.7	49
95	Localized Surface Plasmon Resonance-Based Fiber Optic U-Shaped Biosensor for the Detection of Blood Glucose. Plasmonics, 2012, 7, 261-268.	3.4	144
96	Fabrication and characterization of a surface plasmon resonance based fiber optic urea sensor for biomedical applications. Sensors and Actuators B: Chemical, 2012, 161, 434-438.	7.8	78
97	Sensitivity enhancement of a surface plasmon resonance based biomolecules sensor using graphene and silicon layers. Sensors and Actuators B: Chemical, 2011, 160, 623-631.	7.8	271
98	Surface plasmon resonance based fiber optic sensor for the detection of low water content in ethanol. Sensors and Actuators B: Chemical, 2011, 153, 194-198.	7.8	151
99	Influence of ions on the surface plasmon resonance spectrum of a fiber optic refractive index sensor. Sensors and Actuators B: Chemical, 2011, 156, 559-562.	7.8	58
100	Surface plasmon resonance based fiber optic sensor for the IR region using a conducting metal oxide film. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2010, 27, 846.	1.5	120
101	Influence of skew rays on the sensitivity and signal-to-noise ratio of a fiber-optic surface-plasmon-resonance sensor: a theoretical study. Applied Optics, 2007, 46, 4563.	2.1	40
102	Modeling of Tapered Fiber-Optic Surface Plasmon Resonance Sensor With Enhanced Sensitivity. IEEE Photonics Technology Letters, 2007, 19, 1786-1788.	2.5	62
103	Influence of temperature on the sensitivity and signal-to-noise ratio of a fiber-optic surface-plasmon resonance sensor. Applied Optics, 2006, 45, 151.	2.1	69
104	Fiber optic evanescent field absorption sensor: effect of launching condition and the geometry of the sensing region. Optical Engineering, 1994, 33, 1864.	1.0	70