Rajesh Kumar

List of Publications by Year
in descending order

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		81889	85537
89	5,324	39	71
papers	citations	h-index	g-index

90	90	90	6816
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Zinc Oxide Nanostructures for NO2 Gasâ€“Sensor Applications: A Review. Nano-Micro Letters, 2015, 7, 97-120.	27.0	649
2	Organicâ€“Inorganic Hybrid Nanocomposite-Based Gas Sensors for Environmental Monitoring. Chemical Reviews, 2015, 115, 4571-4606.	47.7	429
3	Antimicrobial properties of ZnO nanomaterials: A review. Ceramics International, 2017, 43, 3940-3961.	4.8	388
4	High sensitive and low-concentration sulfur dioxide (SO2) gas sensor application of heterostructure NiO-ZnO nanodisks. Sensors and Actuators B: Chemical, 2019, 298, 126870.	7.8	209
5	Pt nanoparticles decorated SnO2 nanoneedles for efficient CO gas sensing applications. Sensors and Actuators B: Chemical, 2018, 256, 656-664.	7.8	200
6	Highly sensitive carbon monoxide (CO) gas sensors based on Ni and Zn doped SnO2 nanomaterials. Ceramics International, 2018, 44, 4392-4399.	4.8	181
7	Cellulose based grafted biosorbents - Journey from lignocellulose biomass to toxic metal ions sorption applications - A review. Journal of Molecular Liquids, 2017, 232, 62-93.	4.9	162
8	ZnO nano-mushrooms for photocatalytic degradation of methyl orange. Materials Letters, 2013, 97, 100-103.	2.6	156
9	Ce-doped ZnO nanoparticles for efficient photocatalytic degradation of direct red-23 dye. Ceramics International, 2015, 41, 7773-7782.	4.8	150
10	CuO nanosheets as potential scaffolds for gas sensing applications. Sensors and Actuators B: Chemical, 2017, 250, 24-31.	7.8	137
11	Development of highly sensitive and selective ethanol sensor based on lance-shaped CuO nanostructures. Materials and Design, 2016, 105, 16-24.	7.0	100
12	Sonophotocatalytic degradation of methyl orange using ZnO nano-aggregates. Journal of Alloys and Compounds, 2015, 629, 167-172.	5.5	98
13	Synthesis, characterization and acetone gas sensing applications of Ag-doped ZnO nanoneedles. Ceramics International, 2017, 43, 6765-6770.	4.8	97
14	Growth and properties of well-crystalline cerium oxide (CeO2) nanoflakes for environmental and sensor applications. Journal of Colloid and Interface Science, 2015, 454, 61-68.	9.4	94
15	Effect of annealing temperature on the properties and photocatalytic efficiencies of ZnO nanoparticles. Journal of Alloys and Compounds, 2015, 648, 46-52.	5.5	92
16	Fabrication and characterization of highly sensitive and selective sensors based on porous NiO nanodisks. Sensors and Actuators B: Chemical, 2018, 259, 604-615.	7.8	85
17	2D Sn-doped ZnO ultrathin nanosheet networks for enhanced acetone gas sensing application. Ceramics International, 2017, 43, 2418-2423.	4.8	81
18	Zinc oxide nanostructure-based dye-sensitized solar cells. Journal of Materials Science, 2017, 52, 4743-4795.	3.7	79

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19	ZnO nanostructured thin films: Depositions, properties and applicationsâ€"A review. Materials Express, 2015, 5, 3-23.	0.5	75
20	Grafting of cellulose with N-isopropylacrylamide and glycidyl methacrylate for efficient removal of Ni(II), Cu(II) and Pd(II) ions from aqueous solution. Separation and Purification Technology, 2019, 219, 249-259.	7.9	62
21	NiCo2O4 Nano-/Microstructures as High-Performance Biosensors: A Review. Nano-Micro Letters, 2020, 12, 122.	27.0	62
22	Zinc Oxide Nanomaterials for Photocatalytic Degradation of Methyl Orange: A Review. Nanoscience and Nanotechnology Letters, 2014, 6, 631-650.	0.4	60
23	Two-dimensional ytterbium oxide nanodisks based biosensor for selective detection of urea. Biosensors and Bioelectronics, 2017, 98, 254-260.	10.1	59
24	Efficient H2 gas sensor based on 2D SnO2 disks: Experimental and theoretical studies. International Journal of Hydrogen Energy, 2020, 45, 26388-26401.	7.1	57
25	Pulse Laser Deposited Nanostructured ZnO Thin Films: A Review. Journal of Nanoscience and Nanotechnology, 2014, 14, 1911-1930.	0.9	54
26	Sm2O3-doped ZnO beech fern hierarchical structures for nitroaniline chemical sensor. Ceramics International, 2016, 42, 16505-16511.	4.8	53
27	Facile synthesis and photocatalytic activity of cocoon-shaped CuO nanostructures. Materials Letters, 2015, 156, 138-141.	2.6	51
28	A comprehensive review of experimental investigations of forced convective heat transfer characteristics for various nanofluids. International Journal of Mechanical and Materials Engineering, 2014, 9, .	2.2	50
29	Solid-state synthesis of Ag-doped PANI nanocomposites for their end-use as an electrochemical sensor for hydrogen peroxide and dopamine. Electrochimica Acta, 2020, 363, 137158.	5.2	50
30	Photoluminescence quenching of Zirconia nanoparticle by surface modification. Applied Surface Science, 2015, 334, 216-221.	6.1	48
31	Metal ions and organic dyes sorption applications of cellulose grafted with binary vinyl monomers. Separation and Purification Technology, 2019, 209, 684-697.	7.9	48
32	Cubic shaped hematite (Î±-Fe2O3) micro-structures composed of stacked nanosheets for rapid ethanol sensor application. Sensors and Actuators B: Chemical, 2021, 326, 128851.	7.8	48
33	Morphologically-dependent photocatalytic and gas sensing application of Dy-doped ZnO nanoparticles. Journal of Alloys and Compounds, 2017, 726, 1274-1285.	5.5	47
34	Microwave-assisted synthesis of ZnO doped CeO2 nanoparticles as potential scaffold for highly sensitive nitroaniline chemical sensor. Ceramics International, 2016, 42, 11562-11567.	4.8	46
35	Bi2O2CO3 nanoplates: Fabrication and characterization of highly sensitive and selective cholesterol biosensor. Journal of Alloys and Compounds, 2016, 683, 433-438.	5.5	46
36	Synthesis and characterization of cellulose based adsorbents for removal of Ni(II), Cu(II) and Pb(II) ions from aqueous solutions. Reactive and Functional Polymers, 2019, 140, 82-92.	4.1	46

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37	Ag-Doped ZnO Nanoparticles for Enhanced Ethanol Gas Sensing Application. Journal of Nanoscience and Nanotechnology, 2018, 18, 3557-3562.	0.9	44
38	Grafted cellulose: a bio-based polymer for durable applications. Polymer Bulletin, 2018, 75, 2213-2242.	3.3	43
39	CdOâ€“ZnO nanorices for enhanced and selective formaldehyde gas sensing applications. Environmental Research, 2021, 200, 111377.	7.5	42
40	Functionalized cellulose with hydroxyethyl methacrylate and glycidyl methacrylate for metal ions and dye adsorption applications. International Journal of Biological Macromolecules, 2019, 134, 704-721.	7.5	41
41	ZnOâ€“SnO2 nanocubes for fluorescence sensing and dye degradation applications. Ceramics International, 2021, 47, 6201-6210.	4.8	39
42	Silica nanowires: Growth, integration, and sensing applications. Mikrochimica Acta, 2014, 181, 1759-1780.	5.0	38
43	Cauliflower-shaped ZnO nanomaterials for electrochemical sensing and photocatalytic applications. Electrochimica Acta, 2016, 222, 463-472.	5.2	36
44	Highly sensitive and selective 2-nitroaniline chemical sensor based on Ce-doped SnO2 nanosheets/Nafion-modified glassy carbon electrode. Advanced Composites and Hybrid Materials, 2021, 4, 1015-1026.	21.1	35
45	Square disksâ€based crossed architectures of SnO2 for ethanol gas sensing applicationsâ€”An experimental and theoretical investigation. Sensors and Actuators B: Chemical, 2020, 304, 127352.	7.8	34
46	An efficient chemical sensor based on CeO2 nanoparticles for the detection of acetylacetone chemical. Journal of Electroanalytical Chemistry, 2020, 864, 114089.	3.8	34
47	A Highly-Sensitive Picric Acid Chemical Sensor Based on ZnO Nanopeanuts. Materials, 2017, 10, 795.	2.9	33
48	Removal of organic dyes and metal ions by cross-linked graft copolymers of cellulose obtained from the agricultural residue. Journal of Environmental Chemical Engineering, 2018, 6, 6037-6048.	6.7	30
49	Platinum nanoparticles decorated carbon nanotubes for highly sensitive 2-nitrophenol chemical sensor. Ceramics International, 2016, 42, 9257-9263.	4.8	27
50	Highly sensitive and selective non-enzymatic monosaccharide and disaccharide sugar sensing based on carbon paste electrodes modified with perforated NiO nanosheets. New Journal of Chemistry, 2018, 42, 964-973.	2.8	26
51	In-Doped ZnO Hexagonal Stepped Nanorods and Nanodisks as Potential Scaffold for Highly-Sensitive Phenyl Hydrazine Chemical Sensors. Materials, 2017, 10, 1337.	2.9	25
52	Fern shaped La2O3 nanostructures as potential scaffold for efficient hydroquinone chemical sensing application. Ceramics International, 2020, 46, 5141-5148.	4.8	25
53	Nitroaniline chemi-sensor based on bitter gourd shaped ytterbium oxide (Yb2O3) doped zinc oxide (ZnO) nanostructures. Ceramics International, 2019, 45, 13825-13831.	4.8	24
54	Colloidal synthesis of NiMn2O4 nanodisks decorated reduced graphene oxide for electrochemical applications. Microchemical Journal, 2021, 160, 105630.	4.5	24

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55	Photocatalytic Degradation of Direct Red-23 Dye with ZnO Nanoparticles. Journal of Nanoscience and Nanotechnology, 2014, 14, 7161-7166.	0.9	23
56	Quantum information entropy of Eckart potential. International Journal of Quantum Chemistry, 2016, 116, 1413-1418.	2.0	23
57	Forced Convective Heat Transfer of MWCNT/Water Nanofluid Under Constant Heat Flux: An Experimental Investigation. Arabian Journal for Science and Engineering, 2016, 41, 599-609.	1.1	23
58	Synthesis and Characterization of CuO Nanodisks for High-Sensitive and Selective Ethanol Gas Sensor Applications. Journal of Nanoscience and Nanotechnology, 2017, 17, 1455-1459.	0.9	23
59	Sorption of Ni(II), Pb(II) and Cu(II) ions from aqueous solutions by cellulose grafted with poly(HEMA-co-AAc): Kinetic, isotherm and thermodynamic study. Journal of Environmental Chemical Engineering, 2019, 7, 103088.	6.7	22
60	Gas sensor device for high-performance ethanol sensing using Î±-MnO2 nanoparticles. Materials Letters, 2021, 286, 129232.	2.6	22
61	Experimental investigation of the convective heat transfer characteristics of TiO2/distilled water nanofluids under constant heat flux boundary condition. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2015, 37, 1347-1356.	1.6	18
62	Iron-Doped Titanium Dioxide Nanoparticles As Potential Scaffold for Hydrazine Chemical Sensor Applications. Coatings, 2020, 10, 182.	2.6	18
63	Extraction of Cellulose Micro-Whiskers from Rice Husk: A Greener Approach. Journal of Nanoscience and Nanotechnology, 2018, 18, 3702-3708.	0.9	16
64	Spindle-like Co3O4-ZnO Nanocomposites Scaffold for Hydrazine Sensing and Photocatalytic Degradation of Rhodamine B Dye. Engineered Science, 2021, , .	2.3	16
65	Fabrication and Characterization of Highly Sensitive Acetone Chemical Sensor Based on ZnO Nanoballs. Materials, 2017, 10, 799.	2.9	15
66	Ag-doped ZnO nanoellipsoids based highly sensitive gas sensor. Materials Express, 2017, 7, 380-388.	0.5	12
67	Synthesis and characterization of cellulose based graft copolymers with binary vinyl monomers for efficient removal of cationic dyes and Pb(II) ions. Journal of Polymer Research, 2019, 26, 1.	2.4	12
68	Ti₃C₂T_x MXene as Electrocatalyst for Designing Robust Glucose Biosensors. Advanced Materials Technologies, 2022, 7, .	5.8	12
69	Highly Sensitive Ethanol Gas Sensors Based on Ag-Doped ZnO Nanocones. Nanoscience and Nanotechnology Letters, 2016, 8, 241-246.	0.4	10
70	Study of structural, optical and electrochemical properties of ZnO nanostructures and ZnO-PANI nanocomposites. Materials Research Express, 2020, 7, 025024.	1.6	9
71	Low-temperature synthesis of cadmium-doped zinc oxide nanosheets for enhanced sensing and environmental remediation applications. Journal of Alloys and Compounds, 2021, 863, 158649.	5.5	9
72	Nano/micro-scaled materials based optical biosensing of glucose. Ceramics International, 2021, , .	4.8	9

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73	Facile and Rapid Synthesis of ZnO Nanoparticles for Photovoltaic Device Application. Journal of Nanoscience and Nanotechnology, 2015, 15, 6807-6812.	0.9	8
74	Synthesis of Sn-Doped ZnO Nanostructures for 4-Nitrophenol Chemical Sensor Application. Nanoscience and Nanotechnology Letters, 2016, 8, 827-832.	0.4	8
75	Synthesis and Characterization of Mimosa Pudica Leaves Shaped <I>Î±</I>-Iron Oxide Nanostructures for Ethanol Chemical Sensor Applications. Journal of Nanoscience and Nanotechnology, 2016, 16, 2944-2949.	0.9	7
76	Î±-MnO2 Nanowires as Potential Scaffolds for a High-Performance Formaldehyde Gas Sensor Device. Coatings, 2021, 11, 860.	2.6	7
77	Fabrication and Characterization of Highly Sensitive and Selective Glucose Biosensor Based on ZnO Decorated Carbon Nanotubes. Nanoscience and Nanotechnology Letters, 2016, 8, 853-858.	0.4	7
78	Synthesis, characterization and dielectric investigation of ZnO-doped polyaniline nanocomposites. Journal of Information Display, 2015, 16, 49-55.	4.0	6
79	Fabrication and Characterizations of Ethanol Sensor Based on CuO Nanoparticles. Journal of Nanoscience and Nanotechnology, 2018, 18, 2892-2897.	0.9	6
80	Methylene blue intercalated layered MnO2 nanosheets for high-sensitive non-enzymatic ascorbic acid sensor. Journal of Materials Science: Materials in Electronics, 2021, 32, 8317-8329.	2.2	6
81	Methanol Gas Sensor Based on ZnOâ€“SnO2 Hollow Urchins. Nanoscience and Nanotechnology Letters, 2018, 10, 1405-1411.	0.4	6
82	Star-Fruit-Shaped CuO Structures for High Performance Ethanol Gas Sensor Device. Science of Advanced Materials, 2021, 13, 724-733.	0.7	5
83	Ultrathin Leaf-Shaped CuO Nanosheets Based Sensor Device for Enhanced Hydrogen Sulfide Gas Sensing Application. Chemosensors, 2021, 9, 221.	3.6	5
84	Poly(Acrylic Acid)/Multi-Walled Carbon Nanotube Composites: Efficient Scaffold for Highly Sensitive 2-Nitrophenol Chemical Sensor. Nanoscience and Nanotechnology Letters, 2016, 8, 200-206.	0.4	5
85	Hydroquinone Sensor Based on Neodymium (Nd) Doped ZnO Hexagonal Nanorods. Nanoscience and Nanotechnology Letters, 2018, 10, 351-357.	0.4	3
86	Structural and dielectric properties of CTAB modified ZrO2 nanoparticles. AIP Conference Proceedings, 2016, , .	0.4	1
87	Fabrication of Nitroaniline Chemical Sensor Based on Polyaniline Coated Multi-Walled Carbon Nanotubes. Nanoscience and Nanotechnology Letters, 2016, 8, 193-199.	0.4	1
88	Co-Doped ZnO Nano-Agglomerates as a Potential Scaffold for Non-Enzymatic Hydrogen Peroxide Sensing. Science of Advanced Materials, 2021, 13, 1732-1738.	0.7	1
89	Luminescence and photodetection characteristics of rare earthâ€“doped zinc oxide nanostructures. , 2022, , 263-294.		1