

# Gajanan S Ghodake

## List of Publications by Year in descending order

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98  
papers

3,736  
citations

136950

32  
h-index

144013

57  
g-index

100  
all docs

100  
docs citations

100  
times ranked

4707  
citing authors

#	ARTICLE	IF	CITATIONS
1	A comprehensive review on green nanomaterials using biological systems: Recent perception and their future applications. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 170, 20-35.	5.0	252
2	Pear fruit extract-assisted room-temperature biosynthesis of gold nanoplates. <i>Colloids and Surfaces B: Biointerfaces</i> , 2010, 75, 584-589.	5.0	226
3	Review on biomass feedstocks, pyrolysis mechanism and physicochemical properties of biochar: State-of-the-art framework to speed up vision of circular bioeconomy. <i>Journal of Cleaner Production</i> , 2021, 297, 126645.	9.3	202
4	Recent developments in nanotechnology transforming the agricultural sector: a transition replete with opportunities. <i>Journal of the Science of Food and Agriculture</i> , 2018, 98, 849-864.	3.5	167
5	Hazardous phytotoxic nature of cobalt and zinc oxide nanoparticles assessed using <i>Allium cepa</i> . <i>Journal of Hazardous Materials</i> , 2011, 186, 952-955.	12.4	146
6	Green synthesis of silver nanoparticles using <i>Laminaria japonica</i> extract: Characterization and seedling growth assessment. <i>Journal of Cleaner Production</i> , 2018, 172, 2910-2918.	9.3	141
7	A comprehensive overview and recent advances on polyhydroxyalkanoates (PHA) production using various organic waste streams. <i>Bioresource Technology</i> , 2021, 325, 124685.	9.6	138
8	Nanoflower-like CuO/Cu(OH) <sub>2</sub> hybrid thin films: Synthesis and electrochemical supercapacitive properties. <i>Journal of Electroanalytical Chemistry</i> , 2014, 732, 80-85.	3.8	104
9	Wheat straw extracted lignin in silver nanoparticles synthesis: Expanding its prophecy towards antineoplastic potency and hydrogen peroxide sensing ability. <i>International Journal of Biological Macromolecules</i> , 2019, 128, 391-400.	7.5	84
10	Pretreatment of kenaf ( <i>Hibiscus cannabinus</i> L.) biomass feedstock for polyhydroxybutyrate (PHB) production and characterization. <i>Bioresource Technology</i> , 2019, 282, 75-80.	9.6	84
11	Influence of Mn incorporation on the supercapacitive properties of hybrid CuO/Cu(OH) <sub>2</sub> electrodes. <i>RSC Advances</i> , 2015, 5, 30478-30484.	3.6	78
12	Photocatalytic activity of CuO/Cu(OH) <sub>2</sub> nanostructures in the degradation of Reactive Green 19A and textile effluent, phytotoxicity studies and their biogenic properties (antibacterial and anticancer). <i>Journal of Environmental Management</i> , 2018, 223, 1086-1097.	7.8	74
13	Chemically synthesized nanoflakes-like NiCo <sub>2</sub> S <sub>4</sub> electrodes for high-performance supercapacitor application. <i>Applied Surface Science</i> , 2019, 466, 822-829.	6.1	70
14	Exploiting fruit byproducts for eco-friendly nanosynthesis: Citrus—Clementina peel extract mediated fabrication of silver nanoparticles with high efficacy against microbial pathogens and rat glial tumor C6 cells. <i>Environmental Science and Pollution Research</i> , 2018, 25, 10250-10263.	5.3	66
15	Development of ultrasound aided chemical pretreatment methods to enrich saccharification of wheat waste biomass for polyhydroxybutyrate production and its characterization. <i>Industrial Crops and Products</i> , 2020, 150, 112425.	5.2	62
16	Casein hydrolytic peptides mediated green synthesis of antibacterial silver nanoparticles. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013, 108, 147-151.	5.0	60
17	Phyto-fabrication of silver nanoparticles by <i>Acacia nilotica</i> leaves: Investigating their antineoplastic, free radical scavenging potential and application in H <sub>2</sub> O <sub>2</sub> sensing. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2019, 99, 239-249.	5.3	57
18	Effect of deposition parameters on spray pyrolysis synthesized CuO nanoparticle thin films for higher supercapacitor performance. <i>Journal of Electroanalytical Chemistry</i> , 2019, 850, 113433.	3.8	56

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19	Using chemical bath deposition to create nanosheet-like CuO electrodes for supercapacitor applications. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 181, 1004-1011.	5.0	54
20	Flower-like NiCo <sub>2</sub> O <sub>4</sub> /NiCo <sub>2</sub> S <sub>4</sub> electrodes on Ni mesh for higher supercapacitor applications. <i>Ceramics International</i> , 2019, 45, 17192-17203.	4.8	52
21	Morphological enhancement to CuO nanostructures by electron beam irradiation for biocompatibility and electrochemical performance. <i>Ultrasonics Sonochemistry</i> , 2018, 40, 314-322.	8.2	51
22	Paper waste extracted $\beta$ -cellulose fibers super-magnetized and chitosan-functionalized for covalent laccase immobilization. <i>Bioresource Technology</i> , 2018, 261, 420-427.	9.6	47
23	Efficient bioconversion of sugarcane bagasse into polyhydroxybutyrate (PHB) by <i>Lysinibacillus</i> sp. and its characterization. <i>Bioresource Technology</i> , 2021, 324, 124673.	9.6	46
24	Cytotoxicity and antibacterial assessment of gallic acid capped gold nanoparticles. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 149, 162-167.	5.0	45
25	Genome-Wide Identification and Characterization of PIN-FORMED (PIN) Gene Family Reveals Role in Developmental and Various Stress Conditions in <i>Triticum aestivum</i> L.. <i>International Journal of Molecular Sciences</i> , 2021, 22, 7396.	4.1	45
26	High-performance symmetric supercapacitor; nanoflower-like NiCo <sub>2</sub> O <sub>4</sub> //NiCo <sub>2</sub> O <sub>4</sub> thin films synthesized by simple and highly stable chemical method. <i>Journal of Molecular Liquids</i> , 2020, 299, 112119.	4.9	43
27	Cellulose- $\beta$ -Chitosan Antibacterial Composite Films Prepared from LiBr Solution. <i>Polymers</i> , 2018, 10, 1058.	4.5	42
28	Colorimetric detection of Cu <sup>2+</sup> based on the formation of peptide-copper complexes on silver nanoparticle surfaces. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 1414-1422.	2.8	42
29	Effect of Mn doping on the chemical synthesis of interconnected nanoflakes-like CoS thin films for high performance supercapacitor applications. <i>Ceramics International</i> , 2018, 44, 23102-23108.	4.8	41
30	Utilization of Noxious Weed Water Hyacinth Biomass as a Potential Feedstock for Biopolymers Production: A Novel Approach. <i>Polymers</i> , 2020, 12, 1704.	4.5	37
31	Investigation of photocatalytic degradation of reactive textile dyes by <i>Portulaca oleracea</i> -functionalized silver nanocomposites and exploration of their antibacterial and antidiabetic potentials. <i>Journal of Alloys and Compounds</i> , 2020, 833, 155083.	5.5	37
32	Designing of nanoflakes anchored nanotubes-like MnCo <sub>2</sub> S <sub>4</sub> /halloysite composites for advanced battery like supercapacitor application. <i>Electrochimica Acta</i> , 2020, 341, 135973.	5.2	36
33	Chemical synthesis of flower-like hybrid Cu(OH) <sub>2</sub> /CuO electrode: Application of polyvinyl alcohol and triton X-100 to enhance supercapacitor performance. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 156, 165-174.	5.0	34
34	Synthesis and characterization of chemically deposited flower-like CdSe <sub>0.6</sub> Te <sub>0.4</sub> thin films for solar cell application. <i>Materials Letters</i> , 2014, 126, 17-19.	2.6	33
35	Adsorptive remediation of cobalt oxide nanoparticles by magnetized $\beta$ -cellulose fibers from waste paper biomass. <i>Bioresource Technology</i> , 2019, 273, 386-393.	9.6	33
36	Silver nanoparticle probe for colorimetric detection of aminoglycoside antibiotics: picomolar level sensitivity toward streptomycin in water, serum, and milk samples. <i>Journal of the Science of Food and Agriculture</i> , 2020, 100, 874-884.	3.5	33

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37	Super-magnetization of pectin from orange-peel biomass for sulfamethoxazole adsorption. <i>Cellulose</i> , 2020, 27, 3301-3318.	4.9	33
38	Temperature Dependent Synthesis of Tryptophan-Functionalized Gold Nanoparticles and Their Application in Imaging Human Neuronal Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 7678-7689.	6.7	32
39	Compost Soil Microbial Fuel Cell to Generate Power using Urea as Fuel. <i>Scientific Reports</i> , 2020, 10, 4154.	3.3	32
40	Morphological modulation of Mn: CdSe thin film and its enhanced electrochemical properties. <i>Journal of Electroanalytical Chemistry</i> , 2014, 727, 179-183.	3.8	31
41	Nanorods to hexagonal nanosheets of CuO-doped manganese oxide nanostructures for higher electrochemical supercapacitor performance. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 184, 110500.	5.0	30
42	Rapid production of silver nanoparticles at large-scale using gallic acid and their antibacterial assessment. <i>Materials Letters</i> , 2015, 155, 62-64.	2.6	29
43	High electrochemical performance of nanoflakes like CuO electrode by successive ionic layer adsorption and reaction (SILAR) method. <i>Journal of Industrial and Engineering Chemistry</i> , 2017, 52, 12-17.	5.8	29
44	Green-Synthesis of Anisotropic Peptone-Silver Nanoparticles and Its Potential Application as Anti-Bacterial Agent. <i>Polymers</i> , 2019, 11, 271.	4.5	28
45	Structural, optical, and photo-electrochemical properties of marygold-like CdSe <sub>0.6</sub> Te <sub>0.4</sub> synthesized by electrochemical route. <i>Ceramics International</i> , 2014, 40, 11519-11524.	4.8	27
46	Extracellular Synthesis and Characterization of Silver Nanoparticles – Antibacterial Activity against Multidrug-Resistant Bacterial Strains. <i>Nanomaterials</i> , 2020, 10, 360.	4.1	27
47	MOFs-Graphene Composites Synthesis and Application for Electrochemical Supercapacitor: A Review. <i>Polymers</i> , 2022, 14, 511.	4.5	27
48	Combined effect of inorganic salts with calcium peroxide pretreatment for kenaf core biomass and their utilization for 2,3-butanediol production. <i>Bioresource Technology</i> , 2018, 258, 26-32.	9.6	24
49	Chitosan-Grafted Halloysite Nanotubes-Fe <sub>3</sub> O <sub>4</sub> Composite for Laccase-Immobilization and Sulfamethoxazole-Degradation. <i>Polymers</i> , 2020, 12, 2221.	4.5	24
50	One-step green synthesis of gold nanoparticles using casein hydrolytic peptides and their anti-cancer assessment using the DU145 cell line. <i>Journal of Industrial and Engineering Chemistry</i> , 2016, 33, 185-189.	5.8	23
51	TiO <sub>2</sub> /reduced graphene oxide composite based nano-petals for supercapacitor application: effect of substrate. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 10814-10824.	2.2	22
52	Biological characteristics and biomarkers of novel SARS-CoV-2 facilitated rapid development and implementation of diagnostic tools and surveillance measures. <i>Biosensors and Bioelectronics</i> , 2021, 177, 112969.	10.1	22
53	Baking impact of Fe composition on CdSe films for solar cell application. <i>Materials Letters</i> , 2014, 132, 243-246.	2.6	21
54	A Spectral Probe for Detection of Aluminum (III) Ions Using Surface Functionalized Gold Nanoparticles. <i>Nanomaterials</i> , 2017, 7, 287.	4.1	21

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55	Colorimetric detection of magnesium (II) ions using tryptophan functionalized gold nanoparticles. <i>Scientific Reports</i> , 2017, 7, 3966.	3.3	20
56	Synthesis and characterization of hybrid Ag-ZnO nanocomposite for the application of sensor selectivity. <i>Current Applied Physics</i> , 2018, 18, 377-383.	2.4	20
57	Chlortetracycline-Functionalized Silver Nanoparticles as a Colorimetric Probe for Aminoglycosides: Ultrasensitive Determination of Kanamycin and Streptomycin. <i>Nanomaterials</i> , 2020, 10, 997.	4.1	20
58	Gallic acid-functionalized silver nanoparticles as colorimetric and spectrophotometric probe for detection of Al <sup>3+</sup> in aqueous medium. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 82, 243-253.	5.8	19
59	Novel and efficient hybrid supercapacitor of chemically synthesized quaternary 3D nanoflower-like NiCuCo <sub>2</sub> S <sub>4</sub> electrode. <i>Ceramics International</i> , 2021, 47, 15639-15647.	4.8	19
60	Recent Advances in the Development of Laccase-Based Biosensors via Nano-Immobilization Techniques. <i>Chemosensors</i> , 2022, 10, 58.	3.6	19
61	Enhanced photoelectrochemical properties of nanoflower-like hexagonal CdSe <sub>0.6</sub> Te <sub>0.4</sub> : Effect of electron beam irradiation. <i>Journal of Industrial and Engineering Chemistry</i> , 2017, 45, 92-98.	5.8	17
62	Electrochemically Synthesized Nanoflowers to Nanosphere-Like NiCuSe <sub>2</sub> Thin Films for Efficient Supercapacitor Application. <i>Metals</i> , 2020, 10, 1698.	2.3	17
63	Materials Development in Hybrid Zinc-Ion Capacitors. <i>ChemNanoMat</i> , 2021, 7, 1082-1098.	2.8	16
64	Green synthesis of gold nanostructures using pear extract as effective reducing and coordinating agent. <i>Korean Journal of Chemical Engineering</i> , 2011, 28, 2329-2335.	2.7	15
65	Spectrophotometric determination of Fe(III) by using casein-functionalized gold nanoparticles. <i>Mikrochimica Acta</i> , 2017, 184, 4695-4704.	5.0	15
66	Thiolation of Chitosan Loaded over Super-Magnetic Halloysite Nanotubes for Enhanced Laccase Immobilization. <i>Nanomaterials</i> , 2020, 10, 2560.	4.1	15
67	A Comprehensive Overview on the Production of Vaccines in Plant-Based Expression Systems and the Scope of Plant Biotechnology to Combat against SARS-CoV-2 Virus Pandemics. <i>Plants</i> , 2021, 10, 1213.	3.5	15
68	Tuning stable and unstable aggregates of gallic acid capped gold nanoparticles using Mg <sup>2+</sup> as coordinating agent. <i>Journal of Colloid and Interface Science</i> , 2017, 494, 1-7.	9.4	14
69	Deep eutectic solvent mediated nanostructured copper oxide as a positive electrode material for hybrid supercapacitor device. <i>Journal of Molecular Liquids</i> , 2021, 341, 117319.	4.9	14
70	Cure of tuberculosis using nanotechnology: An overview. <i>Journal of Microbiology</i> , 2018, 56, 287-299.	2.8	13
71	Lignin-Mediated Silver Nanoparticle Synthesis for Photocatalytic Degradation of Reactive Yellow 4G and In Vitro Assessment of Antioxidant, Antidiabetic, and Antibacterial Activities. <i>Polymers</i> , 2022, 14, 648.	4.5	13
72	Treatment of Hazardous Engineered Nanomaterials by Supermagnetized $\beta$ -Cellulose Fibers of Renewable Paper-Waste Origin. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 5764-5775.	6.7	12

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73	Correlation of antibacterial and time resolved photoluminescence studies using bio-reduced silver nanoparticles conjugated with fluorescent quantum dots as a biomarker. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 6977-6983.	2.2	12
74	Developing Microbial Co-Culture System for Enhanced Polyhydroxyalkanoates (PHA) Production Using Acid Pretreated Lignocellulosic Biomass. <i>Polymers</i> , 2022, 14, 726.	4.5	11
75	Structural, optical, and photoelectrochemical properties of nanosphere-like CdXZn1-XS synthesized by electrochemical route. <i>Ionics</i> , 2017, 23, 223-231.	2.4	9
76	Whey peptide-encapsulated silver nanoparticles as a colorimetric and spectrophotometric probe for palladium(II). <i>Mikrochimica Acta</i> , 2019, 186, 763.	5.0	9
77	An Overview of Recent Advancements in Microbial Polyhydroxyalkanoates (PHA) Production from Dark Fermentation Acidogenic Effluents: A Path to an Integrated Bio-Refinery. <i>Polymers</i> , 2021, 13, 4297.	4.5	9
78	<i>Chlamydomonas angulosa</i> (Green Alga) and <i>Nostoc commune</i> (Blue-Green Alga) Microalgae-Cellulose Composite Aerogel Beads: Manufacture, Physicochemical Characterization, and Cd (II) Adsorption. <i>Materials</i> , 2018, 11, 562.	2.9	8
79	Water Purification Filter Prepared by Layer-by-layer Assembly of Paper Filter and Polypropylene-polyethylene Woven Fabrics Decorated with Silver Nanoparticles. <i>Fibers and Polymers</i> , 2020, 21, 751-761.	2.1	8
80	Advantage of Species Diversification to Facilitate Sustainable Development of Aquaculture Sector. <i>Biology</i> , 2022, 11, 368.	2.8	8
81	Adsorption capacity of lead on holocellulose aerogels synthesized from an alkali hydroxide " urea solution. <i>Journal of the Korean Physical Society</i> , 2015, 67, 687-693.	0.7	7
82	Mechanistic study of colorimetric and absorbance sensor developed for trivalent yttrium (Y <sup>3+</sup> ) using chlortetracycline-functionalized silver nanoparticles. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 183, 110436.	5.0	7
83	Facile preparation of highly monodisperse poly(NIPAAm)@AuNP composite hollow microcapsules by simple tubular microfluidics. <i>New Journal of Chemistry</i> , 2013, 37, 877.	2.8	6
84	±-Cellulose Fibers of Paper-Waste Origin Surface-Modified with Fe <sub>3</sub> O <sub>4</sub> and Thiolated-Chitosan for Efficacious Immobilization of Laccase. <i>Polymers</i> , 2021, 13, 581.	4.5	6
85	Biological synthesis of ±-Ag <sub>2</sub> S composite nanoparticles using the fungus <i>Humicola</i> sp. and its biomedical applications. <i>Journal of Drug Delivery Science and Technology</i> , 2021, 66, 102770.	3.0	6
86	COVID-19 Pandemic: Public Health Risk Assessment and Risk Mitigation Strategies. <i>Journal of Personalized Medicine</i> , 2021, 11, 1243.	2.5	6
87	Effect of electron beam irradiation on chemically synthesized nanoflake-like CdS electrodes for photoelectrochemical applications. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 164, 255-261.	5.0	4
88	Histidine Functionalized Gold Nanoparticles for Screening Aminoglycosides and Nanomolar Level Detection of Streptomycin in Water, Milk, and Whey. <i>Chemosensors</i> , 2021, 9, 358.	3.6	4
89	Ultrasonically dispersed multi-composite strategy of NiCo <sub>2</sub> S <sub>4</sub> /Halloysite nanotubes/carbon: An efficient solid-state hybrid supercapacitor and hydrogen evolution reaction material. <i>Ceramics International</i> , 2022, 48, 25020-25033.	4.8	4
90	Effects of freeze drying and silver staining on carbonization of cellulose: Carbon nano-materials. <i>Journal of the Korean Physical Society</i> , 2012, 60, 1535-1538.	0.7	3

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91	Effects of a dehydrating agent on the carbonization of wood. Journal of the Korean Physical Society, 2012, 60, 1823-1827.	0.7	3
92	Structural properties and adsorption capacity of holocellulose aerogels synthesized from an alkali hydroxide-urea solution. Journal of the Korean Physical Society, 2014, 64, 1470-1473.	0.7	3
93	Tailoring the characteristics of carbonized wood charcoal by using different heating rates. Journal of the Korean Physical Society, 2014, 64, 1474-1478.	0.7	3
94	Impact of Annealing Temperature on the Morphological, Optical and Photoelectrochemical Properties of Cauliflower-like CdSe <sub>0.6</sub> Te <sub>0.4</sub> Photoelectrodes; Enhanced Solar Cell Performance. International Journal of Molecular Sciences, 2021, 22, 11610.	4.1	3
95	Significance of Immune Status of SARS-CoV-2 Infected Patients in Determining the Efficacy of Therapeutic Interventions. Journal of Personalized Medicine, 2022, 12, 349.	2.5	3
96	Gold nanoparticles immobilized on crystalline titanate fibres and shuttling effect of charges in solar photocatalysis. RSC Advances, 2014, 4, 58949-58955.	3.6	0
97	Dependence of the characteristics of wood charcoal on the carbonization conditions. Journal of the Korean Physical Society, 2015, 67, 694-699.	0.7	0
98	Characteristics of cellulose-microalgae composite. Journal of the Korean Physical Society, 2017, 71, 471-477.	0.7	0