

Avijit Ghosh

List of Publications by Year in descending order

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103
papers

2,409
citations

218677

26
h-index

276875

41
g-index

103
all docs

103
docs citations

103
times ranked

2936
citing authors

#	ARTICLE	IF	CITATIONS
1	Municipal solid waste (MSW): Strategies to improve salt affected soil sustainability: A review. Waste Management, 2019, 84, 38-53.	7.4	135
2	Long-term fertilization effects on soil organic carbon sequestration in an Inceptisol. Soil and Tillage Research, 2018, 177, 134-144.	5.6	118
3	Crop rotation and residue management effects on soil enzyme activities, glomalin and aggregate stability under zero tillage in the Indo-Gangetic Plains. Soil and Tillage Research, 2018, 184, 291-300.	5.6	103
4	Power-generating footwear based on a triboelectric-electromagnetic-piezoelectric hybrid nanogenerator. Nano Energy, 2019, 62, 660-666.	16.0	80
5	Frontiers of solvent-free functional molecular liquids. Chemical Communications, 2017, 53, 10344-10357.	4.1	77
6	Delivery of dual miRNA through CD44-targeted mesoporous silica nanoparticles for enhanced and effective triple-negative breast cancer therapy. Biomaterials Science, 2020, 8, 2939-2954.	5.4	59
7	Temperature sensitivity of soil organic carbon decomposition as affected by long-term fertilization under a soybean based cropping system in a sub-tropical Alfisol. Agriculture, Ecosystems and Environment, 2016, 233, 202-213.	5.3	57
8	Effect of Five Membered Versus Six Membered Meso-Substituents on Structure and Electronic Properties of Mg(II) Porphyrins: A Combined Experimental and Theoretical Study. Inorganic Chemistry, 2010, 49, 8287-8297.	4.0	56
9	Synthesis, Structure, Spectroscopic, and Electrochemical Properties of Highly Fluorescent Phosphorus(V)-meso-Triarylcorroles. Chemistry - A European Journal, 2012, 18, 6386-6396.	3.3	56
10	Electrical behavior of Pb(Zr _{0.52} Ti _{0.48}) _{0.5} (Fe _{0.5} Nb _{0.5}) _{0.5} O ₃ ceramics. Materials Chemistry and Physics, 2011, 130, 381-386.	4.0	55
11	Delivery of thymoquinone through hyaluronic acid-decorated mixed Pluronic® nanoparticles to attenuate angiogenesis and metastasis of triple-negative breast cancer. Journal of Controlled Release, 2020, 322, 357-374.	9.9	55
12	Soil enzymes and microbial elemental stoichiometry as bio-indicators of soil quality in diverse cropping systems and nutrient management practices of Indian Vertisols. Applied Soil Ecology, 2020, 145, 103304.	4.3	53
13	Transferrin-decorated thymoquinone-loaded PEG-PLGA nanoparticles exhibit anticarcinogenic effect in non-small cell lung carcinoma via the modulation of miR-34a and miR-16. Biomaterials Science, 2019, 7, 4325-4344.	5.4	52
14	Strategically Modified Rhodamine-Quinoline Conjugate as a CHEF-Assisted FRET Probe for Au ³⁺ : DFT and Living Cell Imaging Studies. Journal of Organic Chemistry, 2015, 80, 8530-8538.	3.2	43
15	Benzophenones as Generic Host Materials for Phosphorescent Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2016, 8, 1527-1535.	8.0	43
16	Amorphous Host Materials Based on Tröger's Base Scaffold for Application in Phosphorescent Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2015, 7, 3298-3305.	8.0	41
17	Solvent-Regulated Fluorimetric Differentiation of Al ³⁺ and Zn ²⁺ Using an AIE-Active Single Sensor. Journal of Physical Chemistry A, 2021, 125, 1490-1504.	2.5	38
18	Response of oxidative stability of aggregate-associated soil organic carbon and deep soil carbon sequestration to zero-tillage in subtropical India. Soil and Tillage Research, 2019, 195, 104370.	5.6	36

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19	Rapid detection of aspartic acid and glutamic acid in water by BODIPY-Based fluorescent probe: Live-cell imaging and DFT studies. <i>Dyes and Pigments</i> , 2019, 168, 111-122.	3.7	36
20	Polymer coated novel controlled release rock phosphate formulations for improving phosphorus use efficiency by wheat in an Inceptisol. <i>Soil and Tillage Research</i> , 2018, 180, 48-62.	5.6	34
21	Long-term in situ moisture conservation in horti-pasture system improves biological health of degraded land. <i>Journal of Environmental Management</i> , 2019, 248, 109339.	7.8	33
22	Soft chromophore featured liquid porphyrins and their utilization toward liquid electret applications. <i>Nature Communications</i> , 2019, 10, 4210.	12.8	32
23	A through bond energy transfer based ratiometric probe for fluorescent imaging of Sn ²⁺ ions in living cells. <i>RSC Advances</i> , 2016, 6, 39657-39662.	3.6	31
24	Synthesis, Structure and Properties of a Five-Coordinate Oxophosphorus(V) <i>meso</i> -Triphenylcorrole. <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 4231-4239.	2.0	30
25	Four years of conservation agriculture affects topsoil aggregate-associated N nitrogen but not the N nitrogen use efficiency by wheat in a semi-arid climate. <i>Geoderma</i> , 2019, 337, 333-340.	5.1	30
26	Long-term fertilisation impact on temperature sensitivity of aggregate associated soil organic carbon in a sub-tropical inceptisol. <i>Soil and Tillage Research</i> , 2019, 195, 104369.	5.6	29
27	Phonon assisted photoluminescence and surface optical mode of Zn embedded ZnO nanostructure. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 075416.	2.8	28
28	Impedance and modulus spectroscopic analysis of single phase BaZrO ₃ ceramics for SOFC application. <i>Ionics</i> , 2018, 24, 1161-1171.	2.4	28
29	Long-term fertilization effects on ¹³ C natural abundance, soil aggregation, and deep soil organic carbon sequestration in an Alfisol. <i>Land Degradation and Development</i> , 2019, 30, 391-405.	3.9	27
30	<i>Bis</i> -Arylidene Oxindole-Betulinic Acid Conjugate: A Fluorescent Cancer Cell Detector with Potent Anticancer Activity. <i>ACS Medicinal Chemistry Letters</i> , 2015, 6, 612-616.	2.8	26
31	A 1,8 naphthalimide anchor rhodamine B based FRET probe for ratiometric detection of Cr ³⁺ ion in living cells. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 372, 49-58.	3.9	26
32	Ratiometric sensing of Fe ³⁺ through PET-CHEF-FRET processes: Live cell imaging, speciation and DFT studies. <i>Sensors and Actuators B: Chemical</i> , 2017, 251, 942-950.	7.8	25
33	Microstructural aspects for defect emission and E ₂ high phonon mode of ZnO thin films. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	24
34	Agriculture, dairy and fishery farming practices and greenhouse gas emission footprint: a strategic appraisal for mitigation. <i>Environmental Science and Pollution Research</i> , 2020, 27, 10160-10184.	5.3	24
35	Analysis of dielectric and magnetic phase transitions in Yb(Fe _{0.5} Cr _{0.5})O ₃ bulk perovskite. <i>Applied Physics A: Materials Science and Processing</i> , 2019, 125, 1.	2.3	23
36	Bifunctional organic materials for OLEDs based on Tröger's base: Subtle structural changes and significant differences in electroluminescence. <i>Organic Electronics</i> , 2014, 15, 3766-3772.	2.6	22

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37	Sequential Fluorescence Recognition of Molybdenum(VI), Arsenite, and Phosphate Ions in a Ratiometric Manner: A Facile Approach for Discrimination of AsO ₂ ⁻ and H ₂ PO ₄ ⁻ . ACS Omega, 2019, 4, 10877-10890.	3.5	22
38	Optical emission and absorption spectra of Zn ²⁺ /ZnO core-shell nanostructures. Journal of Experimental Nanoscience, 2010, 5, 134-142.	2.4	21
39	Bis-arylidene Oxindoles as Anti-Breast-Cancer Agents Acting via the Estrogen Receptor. ChemMedChem, 2014, 9, 727-732.	3.2	21
40	Deep blue-emissive bifunctional (hole-transporting + emissive) materials with CIE _y ≈ 0.06 based on a U ^{III} -shaped phenanthrene scaffold for application in organic light-emitting diodes. Journal of Materials Chemistry C, 2016, 4, 9310-9315.	5.5	21
41	Colorimetric and fluorescence probe for the detection of nano-molar lysine in aqueous medium. Organic and Biomolecular Chemistry, 2016, 14, 10688-10694.	2.8	21
42	Structural evolution and visible photoluminescence of Zn ²⁺ /ZnO nanophosphor. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 535-539.	1.8	20
43	Small-Molecule Probe for Sensing Serum Albumin with Consequential Self-Assembly as a Fluorescent Organic Nanoparticle for Bioimaging and Drug-Delivery Applications. ACS Applied Bio Materials, 2020, 3, 3099-3113.	4.6	20
44	Rhenium(I) Tricarbonyl Complexes of 5,10,15,20-Tetraphenyl-21-thia and 21-Oxaporphyrins. Inorganic Chemistry, 2012, 51, 6700-6709.	4.0	19
45	Tuning of donor-acceptor linker in rhodamine-coumarin conjugates leads remarkable solvent dependent FRET efficiency for Al ³⁺ imaging in HeLa cells. Sensors and Actuators B: Chemical, 2016, 234, 222-230.	7.8	19
46	Synthesis of Poly(vinyl alcohol) and Liquid Paraffin-Based Controlled Release Nitrogen-Phosphorus Formulations for Improving Phosphorus Use Efficiency in Wheat. Journal of Soil Science and Plant Nutrition, 2020, 20, 1770-1784.	3.4	19
47	Degraded land restoration ecological way through horti-pasture systems and soil moisture conservation to sustain productive economic viability. Land Degradation and Development, 2019, 30, 1516-1529.	3.9	18
48	Contrasting land use systems and soil organic matter quality and temperature sensitivity in North Eastern India. Soil and Tillage Research, 2020, 199, 104573.	5.6	18
49	Phosphate solubilizing bacteria inoculated low-grade rock phosphate can supplement P fertilizer to grow wheat in sub-tropical inceptisol. Rhizosphere, 2022, 23, 100556.	3.0	18
50	Dynamics of culturable microbial fraction in an Inceptisol under short-term amendment with municipal sludge from different sources. Applied Soil Ecology, 2019, 136, 116-121.	4.3	17
51	Does soil organic carbon quality or quantity govern relative temperature sensitivity in soil aggregates?. Biogeochemistry, 2020, 148, 191-206.	3.5	17
52	Eco-restoration of degraded lands through trees and grasses improves soil carbon sequestration and biological activity in tropical climates. Ecological Engineering, 2021, 162, 106176.	3.6	17
53	Synthesis and characterization of hexa-coordinated Sn(IV) complexes of meso-aryl dipyrins. Dalton Transactions, 2013, 42, 5627.	3.3	16
54	Sn(II) induced concentration dependent dynamic to static excimer conversion of a conjugated naphthalene derivative. Dalton Transactions, 2015, 44, 14388-14393.	3.3	16

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55	Tailoring Ligand Environment toward Development of Colorimetric and Fluorescence Indicator for Biological Mn(II) Imaging. <i>Analytical Chemistry</i> , 2016, 88, 1106-1110.	6.5	16
56	Optical quantification of fouling during nanofiltration of dyes. <i>Separation and Purification Technology</i> , 2006, 52, 372-379.	7.9	15
57	Unusual Formation of 21-Oxacorrole from 21-Oxaporphyrin Induced by Phosphoryl Chloride. <i>Organic Letters</i> , 2013, 15, 1040-1043.	4.6	15
58	Raman and dielectric spectroscopic analysis of magnetic phase transition in Y(Fe _{0.5} Cr _{0.5})O ₃ multiferroic ceramics. <i>Ceramics International</i> , 2016, 42, 13834-13840.	4.8	15
59	Phosphorus Enriched Organic Amendments can Increase Nitrogen Use Efficiency in Wheat. <i>Communications in Soil Science and Plant Analysis</i> , 2019, 50, 1178-1191.	1.4	15
60	Synthesis, spectral and electrochemical properties of cyclotriphosphazene appended with six metalloporphyrins. <i>Inorganica Chimica Acta</i> , 2011, 372, 436-441.	2.4	14
61	Aluminium(III) porphyrin based axial-bonding type dyads containing thiaporphyrins and expanded thiaporphyrins as axial ligands. <i>New Journal of Chemistry</i> , 2012, 36, 2630.	2.8	14
62	Stable core-modified calixmaragdyrins: synthesis, structure and specific sensing of the hydrogen sulfate ion. <i>Dalton Transactions</i> , 2014, 43, 6050.	3.3	14
63	Folic-Acid-Adorned PEGylated Graphene Oxide Interferes with the Cell Migration of Triple Negative Breast Cancer Cell Line, MDAMB-231 by Targeting miR-21/PTEN Axis through NF- κ B. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 373-389.	5.2	14
64	Impact of Soil Acidity Influenced by Long-term Integrated Use of Enriched Compost, Biofertilizers, and Fertilizer on Soil Microbial Activity and Biomass in Rice Under Acidic Soil. <i>Journal of Soil Science and Plant Nutrition</i> , 2021, 21, 756-767.	3.4	14
65	Do moisture conservation practices influence stability of soil organic carbon and structure?. <i>Catena</i> , 2021, 199, 105127.	5.0	14
66	Synchronization of Nitrogen Supply with Demand by Wheat Using Sewage Sludge as Organic Amendment in an Inceptisol. <i>Journal of the Indian Society of Soil Science</i> , 2017, 65, 264.	0.2	14
67	Long-term manure application for crop yield stability and carbon sequestration in subtropical region. <i>Soil Use and Management</i> , 2021, 37, 264-276.	4.9	13
68	Synthesis and Crystal Structure of the Rhenium(I) Tricarbonyl Complex of 5,10,15,20-Tetra- <i>p</i> -tolyl-21,23-dithiaporphyrin. <i>Inorganic Chemistry</i> , 2014, 53, 2355-2357.	4.0	12
69	Depth dynamics of soil N contents and natural abundances of ¹⁵ N after 43 years of long-term fertilization and liming in sub-tropical Alfisol. <i>Archives of Agronomy and Soil Science</i> , 2018, 64, 1290-1301.	2.6	11
70	Tunable polarization with enhanced multiferroic response of W/Co co-doped Bi ₄ LaFeTi ₃ O ₁₅ Aurivillius ceramics. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	11
71	A bio-compatible pyridine-pyrazole hydrazide based compartmental receptor for Al ³⁺ sensing and its application in cell imaging. <i>Analytical Methods</i> , 2021, 13, 4266-4279.	2.7	11
72	Naturally occurring thymol based fluorescent probes for detection of intracellular free Mg ²⁺ ion. <i>Sensors and Actuators B: Chemical</i> , 2016, 236, 512-519.	7.8	10

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73	A FRET based colorimetric and fluorescence probe for selective detection of Bi ³⁺ ion and live cell imaging. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018, 360, 26-33.	3.9	10
74	Dependence of Thermal and Moisture Sensitivity of Soil Organic Carbon Decomposition on Manure Composition in an Inceptisol Under a 5-Year Old Maize-Wheat Cropping System. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018, 123, 1637-1650.	3.0	10
75	Organic farming: A prospect for food, environment and livelihood security in Indian agriculture. <i>Advances in Agronomy</i> , 2021, , 101-153.	5.2	10
76	Rhenium(i) tricarbonyl complex of 5,20-bis(p-tolyl)-10,15-bis(p-methoxyphenyl)-21-selenaporphyrin: first X-ray structural characterization of metal complex of 21-selenaporphyrin. <i>Dalton Transactions</i> , 2013, 42, 10798.	3.3	9
77	Zn ²⁺ mediated solvent free solid state red emitting fluorescent complex formation in a mortar-pestle along with living cell imaging studies. <i>RSC Advances</i> , 2015, 5, 33878-33884.	3.6	9
78	Stimuli-responsive Rheological Properties for Liquid Phthalocyanines. <i>Chemistry Letters</i> , 2017, 46, 1539-1541.	1.3	9
79	Delivery of gefitinib in synergism with thymoquinone via transferrin-conjugated nanoparticle sensitizes gefitinib-resistant non-small cell lung carcinoma to control metastasis and stemness. <i>Biomaterials Science</i> , 2021, 9, 8285-8312.	5.4	9
80	Improved Conductivity of Spark Plasma Sintered Ho-Substituted BaZrO ₃ Electrolyte Ceramics for IT-SOFCs. <i>ACS Applied Energy Materials</i> , 2018, 1, 3469-3478.	5.1	8
81	Novel bio-filtration method for the removal of heavy metals from municipal solid waste. <i>Environmental Technology and Innovation</i> , 2020, 17, 100619.	6.1	8
82	A Promising Proton Conducting Electrolyte BaZr _{1-x} HoxO ₃ · $\frac{1}{2}$ (0.05 ≤ x ≤ 0.20) Ceramics for Intermediate Temperature Solid Oxide Fuel Cells. <i>Scientific Reports</i> , 2020, 10, 3461.	3.3	7
83	Compatibility study of thin passivation layers with hydrazine for silicon-based MEMS microthruster. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 095302.	2.8	6
84	Twisted biaryl-amines as novel host materials for green-emissive phosphorescent organic light-emitting diodes (PHOLEDs). <i>RSC Advances</i> , 2015, 5, 101169-101176.	3.6	6
85	Cycloaddition of hexacene and fullerene[60]. <i>Tetrahedron Letters</i> , 2015, 56, 1092-1095.	1.4	6
86	Land use affects temperature sensitivity of soil organic carbon decomposition in macroaggregates but not in bulk soils in subtropical Oxisols of Queensland, Australia. <i>Soil and Tillage Research</i> , 2020, 198, 104566.	5.6	6
87	Ecological restoration of degraded lands with alternate land use systems improves soil functionality in semiarid tropical India. <i>Land Degradation and Development</i> , 2022, 33, 1076-1087.	3.9	6
88	Silvopasture systems for restoration of degraded lands in a semiarid region of India. <i>Land Degradation and Development</i> , 2022, 33, 2843-2854.	3.9	6
89	A curcumin derived probe for colorimetric detection of azide ions in water. <i>New Journal of Chemistry</i> , 2017, 41, 15368-15372.	2.8	5
90	Long-Term Grazing Mediates Soil Organic Carbon Dynamics by Reorienting Enzyme Activities and Elemental Stoichiometry in Semi-arid Tropical Inceptisol. <i>Journal of Soil Science and Plant Nutrition</i> , 2022, 22, 1422-1433.	3.4	5

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91	Nitrogen-Free Bifunctional Bianthryl Leads to Stable White-Light Emission in Bilayer and Multilayer OLED Devices. ACS Omega, 2018, 3, 1416-1424.	3.5	4
92	Optical sensors for detection of nano-molar Zn ²⁺ in aqueous medium: Direct evidence of probe- Zn ²⁺ binding by single crystal X-ray structures. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 368, 52-61.	3.9	4
93	Decay Kinetics of Enzymes as Influenced by Manuring Under Varying Hydrothermal Regimes in a Wheat-Maize Cropping System of Subtropical Cambisols in India. Journal of Soil Science and Plant Nutrition, 2021, 21, 908-921.	3.4	4
94	Differentiating biological and chemical factors of top and deep soil carbon sequestration in semi-arid tropical Inceptisol: an outcome of structural equation modeling. Carbon Management, 2020, 11, 441-453.	2.4	3
95	Unusual formation of thiasoporphyrins from 21-thiaporphyrins. Chemical Communications, 2013, 49, 8677.	4.1	2
96	Effect of Co doping on optical behaviors in ZnO nanorods. , 2013, , .		2
97	Ring Opening of a meso-Triaryl Oxasmaragdyrin Macrocycle by m-Chloroperoxybenzoic Acid. Chemistry - A European Journal, 2016, 22, 2153-2157.	3.3	2
98	Delivery of novel coumarin-dihydropyrimidinone conjugates through mixed polymeric nanoparticles to potentiate therapeutic efficacy against triple-negative breast cancer. Biomaterials Science, 2021, 9, 5665-5690.	5.4	2
99	60 years of fertilization and liming impacts on soil organic carbon stabilization in a sub-tropical Alfisol. Environmental Science and Pollution Research, 2021, 28, 45946-45961.	5.3	2
100	Growth and microstructure for visible emission and surface optical phonon mode of Zn-ZnO nanostructure. Philosophical Magazine, 2010, 90, 731-751.	1.6	1
101	Soil Carbon Sequestration for Soil Quality Improvement and Climate Change Mitigation. Energy, Environment, and Sustainability, 2021, , 57-81.	1.0	1
102	5,10,15,20-Tetra-2-furylporphyrin. Acta Crystallographica Section E: Structure Reports Online, 2010, 66, o1160-o1161.	0.2	0
103	Variability of Crop Residues Determines Solubilization and Availability of Phosphorus Fractions during Composting of Rock Phosphate Enriched Compost Vis-À-vis Ordinary Compost. Communications in Soil Science and Plant Analysis, 2020, 51, 2085-2101.	1.4	0