

Vanish Kumar

List of Publications by Year in descending order

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77
papers

4,713
citations

76196

40
h-index

102304

66
g-index

80
all docs

80
docs citations

80
times ranked

5962
citing authors

#	ARTICLE	IF	CITATIONS
1	Production of bioplastic through food waste valorization. <i>Environment International</i> , 2019, 127, 625-644.	4.8	328
2	A review of the applications of Schiff bases as optical chemical sensors. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 116, 74-91.	5.8	291
3	Biogenic synthesis of copper oxide nanoparticles using plant extract and its prodigious potential for photocatalytic degradation of dyes. <i>Environmental Research</i> , 2019, 177, 108569.	3.7	260
4	Nanoparticle-plant interaction: Implications in energy, environment, and agriculture. <i>Environment International</i> , 2018, 119, 1-19.	4.8	212
5	Metal-organic frameworks (MOFs): potential and challenges for capture and abatement of ammonia. <i>Journal of Materials Chemistry A</i> , 2017, 5, 22877-22896.	5.2	202
6	Role of gold nanoparticles in advanced biomedical applications. <i>Nanoscale Advances</i> , 2020, 2, 3764-3787.	2.2	172
7	Photocatalytic degradation of bisphenol A in aqueous media: A review. <i>Journal of Environmental Management</i> , 2018, 213, 189-205.	3.8	165
8	Progress on nanostructured electrochemical sensors and their recognition elements for detection of mycotoxins: A review. <i>Biosensors and Bioelectronics</i> , 2018, 121, 205-222.	5.3	163
9	Environmental impacts of nanomaterials. <i>Journal of Environmental Management</i> , 2018, 225, 261-271.	3.8	155
10	Graphene quantum dots FRET based sensor for early detection of heart attack in human. <i>Biosensors and Bioelectronics</i> , 2016, 79, 495-499.	5.3	110
11	Graphene and its nanocomposites as a platform for environmental applications. <i>Chemical Engineering Journal</i> , 2017, 315, 210-232.	6.6	108
12	Highly stable AgNPs prepared via a novel green approach for catalytic and photocatalytic removal of biological and non-biological pollutants. <i>Environment International</i> , 2020, 143, 105924.	4.8	108
13	Photocatalytic degradation performance of various types of modified TiO ₂ against nitrophenols in aqueous systems. <i>Journal of Cleaner Production</i> , 2019, 231, 899-912.	4.6	102
14	Mechanical properties of aluminium-graphene/carbon nanotubes (CNTs) metal matrix composites: Advancement, opportunities and perspective. <i>Materials Research Bulletin</i> , 2021, 138, 111224.	2.7	99
15	A review of functional sorbents for adsorptive removal of arsenic ions in aqueous systems. <i>Journal of Hazardous Materials</i> , 2020, 388, 121815.	6.5	98
16	Biomolecule-embedded metal-organic frameworks as an innovative sensing platform. <i>Biotechnology Advances</i> , 2018, 36, 467-481.	6.0	81
17	Nanomaterial-based immunosensors for ultrasensitive detection of pesticides/herbicides: Current status and perspectives. <i>Biosensors and Bioelectronics</i> , 2020, 165, 112382.	5.3	81
18	Metal-organic frameworks for photocatalytic detoxification of chromium and uranium in water. <i>Coordination Chemistry Reviews</i> , 2021, 447, 214148.	9.5	81

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19	Nanomaterials-based treatment options for chromium in aqueous environments. <i>Environment International</i> , 2019, 130, 104748.	4.8	80
20	Critical role of water stability in metal-organic frameworks and advanced modification strategies for the extension of their applicability. <i>Environmental Science: Nano</i> , 2020, 7, 1319-1347.	2.2	79
21	Advances in electrospun nanofiber fabrication for polyaniline (PANI)-based chemoresistive sensors for gaseous ammonia. <i>TrAC - Trends in Analytical Chemistry</i> , 2020, 129, 115938.	5.8	77
22	Metal-organic framework (MOF)-based advanced sensing platforms for the detection of hydrogen sulfide. <i>TrAC - Trends in Analytical Chemistry</i> , 2018, 105, 263-281.	5.8	75
23	Adsorptive removal of an eight-component volatile organic compound mixture by Cu-, Co-, and Zr-metal-organic frameworks: Experimental and theoretical studies. <i>Chemical Engineering Journal</i> , 2020, 397, 125391.	6.6	72
24	Biogenic synthesis of silver nanoparticles and its photocatalytic applications for removal of organic pollutants in water. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 80, 247-257.	2.9	70
25	Functional hybrid nanostructure materials: Advanced strategies for sensing applications toward volatile organic compounds. <i>Coordination Chemistry Reviews</i> , 2017, 342, 80-105.	9.5	69
26	Recent advances in carbon nanotube sponge-based sorption technologies for mitigation of marine oil spills. <i>Journal of Colloid and Interface Science</i> , 2020, 570, 411-422.	5.0	69
27	Potential applications of graphene-based nanomaterials as adsorbent for removal of volatile organic compounds. <i>Environment International</i> , 2020, 135, 105356.	4.8	68
28	Graphene materials as a superior platform for advanced sensing strategies against gaseous ammonia. <i>Journal of Materials Chemistry A</i> , 2018, 6, 22391-22410.	5.2	63
29	The effect of manganese doping on structural, optical, and photocatalytic activity of zinc oxide nanoparticles. <i>Composites Part B: Engineering</i> , 2019, 166, 361-370.	5.9	62
30	Identifying the best materials for the removal of airborne toluene based on performance metrics - A critical review. <i>Journal of Cleaner Production</i> , 2019, 241, 118408.	4.6	59
31	Nanomaterials for the abatement of cadmium (II) ions from water/wastewater. <i>Nano Research</i> , 2019, 12, 1489-1507.	5.8	53
32	Enhanced antibacterial profile of nanoparticle impregnated cellulose foam filter paper for drinking water filtration. <i>Carbohydrate Polymers</i> , 2018, 202, 219-226.	5.1	50
33	Graphene nanoplatelet/graphitized nanodiamond-based nanocomposite for mediator-free electrochemical sensing of urea. <i>Food Chemistry</i> , 2020, 303, 125375.	4.2	49
34	Advances in thermocatalytic and photocatalytic techniques for the room/low temperature oxidative removal of formaldehyde in air. <i>Chemical Engineering Journal</i> , 2020, 399, 125759.	6.6	48
35	Amperometric sensing of urea using edge activated graphene nanoplatelets. <i>RSC Advances</i> , 2015, 5, 13278-13284.	1.7	46
36	Advanced Functional Structure-Based Sensing and Imaging Strategies for Cancer Detection: Possibilities, Opportunities, Challenges, and Prospects. <i>Advanced Functional Materials</i> , 2019, 29, 1807859.	7.8	44

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37	Metal organic frameworks as potent treatment media for odorants and volatiles in air. <i>Environmental Research</i> , 2019, 168, 336-356.	3.7	44
38	Advances in In ₂ O ₃ -based materials for the development of hydrogen sulfide sensors. <i>Chemical Engineering Journal</i> , 2021, 404, 126472.	6.6	44
39	Aspects of Point-of-Care Diagnostics for Personalized Health Wellness. <i>International Journal of Nanomedicine</i> , 2021, Volume 16, 383-402.	3.3	43
40	Experimental and theoretical studies of various solar control window glasses for the reduction of cooling and heating loads in buildings across different climatic regions. <i>Energy and Buildings</i> , 2018, 173, 326-336.	3.1	42
41	Nanomaterials for the sensing of narcotics: Challenges and opportunities. <i>TrAC - Trends in Analytical Chemistry</i> , 2018, 106, 84-115.	5.8	42
42	Simple and Mediator-Free Urea Sensing Based on Engineered Nanodiamonds with Polyaniline Nanofibers Synthesized in Situ. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 16813-16823.	4.0	40
43	Recent Advances in Nanomaterial-Based Human Breath Analytical Technology for Clinical Diagnosis and the Way Forward. <i>CheM</i> , 2019, 5, 3020-3057.	5.8	37
44	Recent progress in nanomaterial-based sensing of airborne viral and bacterial pathogens. <i>Environment International</i> , 2021, 146, 106183.	4.8	37
45	Nanotwinning: Generation, properties, and application. <i>Materials and Design</i> , 2020, 192, 108752.	3.3	27
46	A critical review on the metal sensing capabilities of optically active nanomaterials: Limiting factors, mechanism, and performance evaluation. <i>TrAC - Trends in Analytical Chemistry</i> , 2018, 109, 227-246.	5.8	25
47	Utilization of metal-organic frameworks for the adsorptive removal of an aliphatic aldehyde mixture in the gas phase. <i>Nanoscale</i> , 2020, 12, 8330-8343.	2.8	25
48	Nanomaterial-based aptasensors as an efficient substitute for cardiovascular disease diagnosis: Future of smart biosensors. <i>Biosensors and Bioelectronics</i> , 2021, 193, 113617.	5.3	25
49	Fabrication of ultrathin, free-standing, transparent and conductive graphene/multiwalled carbon nanotube film with superior optoelectronic properties. <i>Thin Solid Films</i> , 2015, 595, 193-199.	0.8	22
50	Nanofibers synthesis of ND:PANI composite by liquid/liquid interfacial polymerization and study on the effect of NDs on growth mechanism of nanofibers. <i>European Polymer Journal</i> , 2016, 83, 1-9.	2.6	22
51	Progress, prospects, and challenges in standardization of sampling and analysis of micro- and nano-plastics in the environment. <i>Journal of Cleaner Production</i> , 2021, 325, 129321.	4.6	20
52	Experimental and Computational Study on the Selective Interaction of Functionalized Gold Nanoparticles with Metal Ions: Sensing Prospects. <i>Langmuir</i> , 2020, 36, 12319-12326.	1.6	17
53	Aluminium-Carbon Fibre Metal Matrix Composites: A Review. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1033, 012057.	0.3	17
54	Use of molecular imprinted polymers as sensitive/selective luminescent sensing probes for pesticides/herbicides in water and food samples. <i>Environmental Pollution</i> , 2022, 299, 118824.	3.7	17

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55	Use of graphene-based structures as platforms for the trace-level detection of gaseous formaldehyde and insights into their superior sensing potentials. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 121, 115694.	5.8	16
56	Effect of carbonaceous nanomaterialsâ€™™ reinforcement on mechanical properties of aluminium metal-based nanocomposite: A review. <i>Materials Today: Proceedings</i> , 2021, 38, 289-295.	0.9	16
57	Graphitic carbon nitride composites as electro catalysts: Applications in energy conversion/storage and sensing system. <i>Journal of Cleaner Production</i> , 2021, 320, 128693.	4.6	16
58	Facile and efficient colorimetric detection of cadmium ions in aqueous systems using green-synthesized gold nanoparticles. <i>International Journal of Environmental Science and Technology</i> , 2022, 19, 4673-4690.	1.8	15
59	Mixed metal (cobalt/molybdenum) based metal-organic frameworks for highly sensitive and specific sensing of arsenic (V): Spectroscopic versus paper-based approaches. <i>Chemical Engineering Journal</i> , 2021, 426, 131243.	6.6	15
60	Eco-Toxicological and Kinetic Evaluation of TiO ₂ and ZnO Nanophotocatalysts in Degradation of Organic Dye. <i>Catalysts</i> , 2019, 9, 871.	1.6	14
61	Recent advances and opportunities in the treatment of hydrocarbons and oils: Metal-organic frameworks-based approaches. <i>Critical Reviews in Environmental Science and Technology</i> , 2019, 49, 587-654.	6.6	12
62	Recent advances in nanoscale materials for antibody-based cancer theranostics. <i>Biosensors and Bioelectronics</i> , 2021, 173, 112787.	5.3	12
63	Conducting Polymer Nanofibers based Sensors for Organic and Inorganic Gaseous Compounds. <i>Asian Journal of Atmospheric Environment</i> , 2020, 14, 85-104.	0.4	12
64	Hydrothermal Synthesis of Cu-ZnO-/TiO ₂ -Based Engineered Nanomaterials for the Efficient Removal of Organic Pollutants and Bacteria from Water. <i>BioNanoScience</i> , 2017, 7, 574-582.	1.5	11
65	Effect of reinforcing graphene nanoplatelets (GNP) on the strength of aluminium (Al) metal matrix nanocomposites. <i>Materials Today: Proceedings</i> , 2022, 61, 280-285.	0.9	11
66	Recent progress on hollow porous molecular imprinted polymers as sorbents of environmental samples. <i>Microchemical Journal</i> , 2021, 171, 106848.	2.3	11
67	Nano Electronics: A New Era of Devices. <i>Solid State Phenomena</i> , 0, 222, 99-116.	0.3	10
68	Carbon Nanotubes as Drug Delivery Vehicles. <i>Solid State Phenomena</i> , 0, 222, 145-158.	0.3	7
69	Influence of Fe(III) on the Fluorescence of Lysozyme: a Facile and Direct Method for Sensitive and Selective Sensing of Fe(III). <i>Journal of Fluorescence</i> , 2021, 31, 1815-1821.	1.3	7
70	HKUST-1 infused woven cotton filter for enhanced adsorptive removal of toluene vapor from gaseous streams. <i>Separation and Purification Technology</i> , 2022, 299, 121743.	3.9	6
71	A Novel Approach for Effective Alteration of Morphological Features of Polyaniline through Interfacial Polymerization for Versatile Applications. <i>Nanomaterials</i> , 2020, 10, 2404.	1.9	5
72	Extraction of low-toxicity nanodiamonds from carbonaceous wastes. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2016, 24, 190-194.	1.0	4

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73	Production and characterization of microalgal exopolysaccharide as a reducing and stabilizing agent for green synthesis of gold-nanoparticle: a case study with a <i>Chlorella</i> sp. from Himalayan high-altitude psychrophilic habitat. <i>Journal of Applied Phycology</i> , 2021, 33, 3899-3914.	1.5	4
74	Substantial enhancement in the photocatalytic degradation of organic/inorganic pollutants in water and photoelectrochemical activity using TiO ₂ @Ag@LaFeO ₃ core-shell nanorods. <i>New Journal of Chemistry</i> , 2022, 46, 5321-5331.	1.4	3
75	Trends in advanced materials for sustainable environmental remediation. , 2022, , 1-29.		1
76	A novel reduction approach for fabrication of transparent conducting fluorine and tin doped indium oxide thin film with low sheet resistance. <i>Ceramics International</i> , 2022, , .	2.3	1
77	Development of Metal Nanoparticles Based Sensing Platform for Lead in Aqueous Samples. <i>Materials Proceedings</i> , 2021, 4, 61.	0.2	0