

# Kumar Vikrant

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

62

papers

2,127

citations

26

h-index

45

g-index

63

ext. papers

2,869

ext. citations

10.7

avg, IF

5.97

L-index

#	Paper	IF	Citations
62	Recent advancements in bioremediation of dye: Current status and challenges. <i>Bioresource Technology</i> , <b>2018</b> , 253, 355-367	11	287
61	Nanomaterials for the adsorptive treatment of Hg(II) ions from water. <i>Chemical Engineering Journal</i> , <b>2019</b> , 358, 264-282	14.7	197
60	Engineered/designer biochar for the removal of phosphate in water and wastewater. <i>Science of the Total Environment</i> , <b>2018</b> , 616-617, 1242-1260	10.2	185
59	Potential Utility of Metal-Organic Framework-Based Platform for Sensing Pesticides. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 8797-8817	9.5	135
58	Metal-organic frameworks (MOFs): potential and challenges for capture and abatement of ammonia. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 22877-22896	13	112
57	Biodegradation of methylene blue dye in a batch and continuous mode using biochar as packing media. <i>Environmental Research</i> , <b>2019</b> , 171, 356-364	7.9	99
56	Biofiltration of hydrogen sulfide: Trends and challenges. <i>Journal of Cleaner Production</i> , <b>2018</b> , 187, 131-147	7.3	75
55	Solar-light-active silver phosphate/titanium dioxide/silica heterostructures for photocatalytic removal of organic dye. <i>Journal of Cleaner Production</i> , <b>2020</b> , 254, 120031	10.3	58
54	Multifunctional applications of biochar beyond carbon storage. <i>International Materials Reviews</i> , <b>2022</b> , 1-51	16.1	58
53	Photocatalytic mineralization of hydrogen sulfide as a dual-phase technique for hydrogen production and environmental remediation. <i>Applied Catalysis B: Environmental</i> , <b>2019</b> , 259, 118025	21.8	54
52	Metal-organic framework (MOF)-based advanced sensing platforms for the detection of hydrogen sulfide. <i>TrAC - Trends in Analytical Chemistry</i> , <b>2018</b> , 105, 263-281	14.6	53
51	Recent advancements in photocatalyst-based platforms for the destruction of gaseous benzene: Performance evaluation of different modes of photocatalytic operations and against adsorption techniques. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , <b>2019</b> , 41, 100316	16.4	52
50	Advances in nanomaterial-based electrochemical biosensors for the detection of microbial toxins, pathogenic bacteria in food matrices. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 401, 123379	12.8	50
49	Identifying the best materials for the removal of airborne toluene based on performance metrics - A critical review. <i>Journal of Cleaner Production</i> , <b>2019</b> , 241, 118408	10.3	44
48	Evidence for superiority of conventional adsorbents in the sorptive removal of gaseous benzene under real-world conditions: Test of activated carbon against novel metal-organic frameworks. <i>Journal of Cleaner Production</i> , <b>2019</b> , 235, 1090-1102	10.3	44
47	Graphene materials as a superior platform for advanced sensing strategies against gaseous ammonia. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 22391-22410	13	39
46	Nanomaterials for the abatement of cadmium (II) ions from water/wastewater. <i>Nano Research</i> , <b>2019</b> , 12, 1489-1507	10	38

45	Adsorption properties of advanced functional materials against gaseous formaldehyde. <i>Environmental Research</i> , <b>2019</b> , 178, 108672	7.9	38
44	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> , <b>2020</b> , 397, 125391	14.7	36
43	Critical role of water stability in metal-organic frameworks and advanced modification strategies for the extension of their applicability. <i>Environmental Science: Nano</i> , <b>2020</b> , 7, 1319-1347	7.1	36
42	Advances in colorimetric and optical sensing for gaseous volatile organic compounds. <i>TrAC - Trends in Analytical Chemistry</i> , <b>2019</b> , 118, 502-516	14.6	34
41	Nanomaterials as efficient platforms for sensing DNA. <i>Biomaterials</i> , <b>2019</b> , 214, 119215	15.6	32
40	Adsorption performance of standard biochar materials against volatile organic compounds in air: A case study using benzene and methyl ethyl ketone. <i>Chemical Engineering Journal</i> , <b>2020</b> , 387, 123943	14.7	32
39	Photocatalytic Platforms for Removal of Ammonia from Gaseous and Aqueous Matrixes: Status and Challenges. <i>ACS Catalysis</i> , <b>2020</b> , 10, 8683-8716	13.1	29
38	Removal of Patent Blue (V) Dye Using Indian Bael Shell Biochar: Characterization, Application and Kinetic Studies. <i>Sustainability</i> , <b>2018</b> , 10, 2669	3.6	29
37	Bio-filters for the Treatment of VOCs and Odors - A Review. <i>Asian Journal of Atmospheric Environment</i> , <b>2017</b> , 11, 139-152	1.3	27
36	Advances in thermocatalytic and photocatalytic techniques for the room/low temperature oxidative removal of formaldehyde in air. <i>Chemical Engineering Journal</i> , <b>2020</b> , 399, 125759	14.7	23
35	Facile green synthesis of ZnO-CdWO nanoparticles and their potential as adsorbents to remove organic dye. <i>Environmental Pollution</i> , <b>2021</b> , 271, 116401	9.3	21
34	Chemisorption of hydrogen sulfide by metal-organic frameworks and covalent-organic polymers based on experimental/theoretical evaluation. <i>Journal of Cleaner Production</i> , <b>2020</b> , 250, 119486	10.3	20
33	Metal-Organic Frameworks for the Adsorptive Removal of Gaseous Aliphatic Ketones. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 10317-10331	9.5	18
32	Utilization of metal-organic frameworks for the adsorptive removal of an aliphatic aldehyde mixture in the gas phase. <i>Nanoscale</i> , <b>2020</b> , 12, 8330-8343	7.7	16
31	Application of Zr-Cluster-Based MOFs for the Adsorptive Removal of Aliphatic Aldehydes (C to C) from an Industrial Solvent. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 44270-44281	9.5	14
30	An efficient strategy for the enhancement of adsorptivity of microporous carbons against gaseous formaldehyde: Surface modification with aminosilane adducts. <i>Science of the Total Environment</i> , <b>2020</b> , 743, 140761	10.2	13
29	The retrograde adsorption phenomenon at the onset of breakthrough and its quantitation: An experimental case study for gaseous toluene on activated carbon surface. <i>Environmental Research</i> , <b>2019</b> , 178, 108737	7.9	12
28	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> , <b>2019</b> , 121, 115694	14.6	11

27	Platinized titanium dioxide (Pt/TiO <sub>2</sub> ) as a multi-functional catalyst for thermocatalysis, photocatalysis, and photothermal catalysis for removing air pollutants. <i>Applied Materials Today</i> , <b>2021</b> , 23, 100993	6.6	11
26	An efficient tool for the continuous monitoring on adsorption of sub-ppm level gaseous benzene using an automated analytical system based on thermal desorption-gas chromatography/mass spectrometry approach. <i>Environmental Research</i> , <b>2020</b> , 182, 109024	7.9	10
25	Deep oxidation of gaseous formaldehyde at room-temperature by a durable catalyst formed through the controlled addition of potassium to platinum supported on waste eggshell. <i>Chemical Engineering Journal</i> , <b>2022</b> , 428, 131177	14.7	10
24	Amine-functionalized microporous covalent organic polymers for adsorptive removal of a gaseous aliphatic aldehyde mixture. <i>Environmental Science: Nano</i> , <b>2020</b> , 7, 3447-3468	7.1	9
23	Scrolled titanate nanosheet composites with reduced graphite oxide for photocatalytic and adsorptive removal of toxic vapors. <i>Chemical Engineering Journal</i> , <b>2021</b> , 415, 128907	14.7	8
22	Evidence of inter-species swing adsorption between aromatic hydrocarbons. <i>Environmental Research</i> , <b>2020</b> , 181, 108814	7.9	7
21	Insights into the storage stability of ammonia in polyester aluminum bags. <i>Environmental Research</i> , <b>2019</b> , 177, 108596	7.9	6
20	Progress in bioremediation of pesticide residues in the environment. <i>Environmental Engineering Research</i> , <b>2021</b> , 26, 200446-0	3.6	5
19	Photocatalytic destruction of volatile aromatic compounds by platinized titanium dioxide in relation to the relative effect of the number of methyl groups on the benzene ring.. <i>Science of the Total Environment</i> , <b>2022</b> , 822, 153605	10.2	4
18	Magnesium/aluminum layered double hydroxides intercalated with starch for effective adsorptive removal of anionic dyes. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 424, 127454	12.8	4
17	Thermocatalytic oxidation of gaseous benzene by a titanium dioxide supported platinum catalyst. <i>Chemical Engineering Journal</i> , <b>2022</b> , 428, 131090	14.7	4
16	Carbon Dioxide Capture through Physical and Chemical Adsorption Using Porous Carbon Materials: A Review. <i>Atmosphere</i> , <b>2022</b> , 13, 397	2.7	4
15	Thermocatalytic oxidation of a three-component mixture of volatile organic compounds by a titanium dioxide-supported platinum catalyst. <i>Journal of Cleaner Production</i> , <b>2021</b> , 325, 129279	10.3	3
14	A quantitation method for gaseous formaldehyde based on gas chromatography with metal-organic framework cold-trap sorbent as an effective alternative for HPLC-based standard protocol. <i>Microchemical Journal</i> , <b>2021</b> , 160, 105624	4.8	3
13	Insights into critical sources of bias in quantitation of volatile organic compounds based on headspace extraction approach. <i>Microchemical Journal</i> , <b>2020</b> , 157, 105114	4.8	2
12	Metal-organic framework micromotors: perspectives for environmental applications. <i>Catalysis Science and Technology</i> ,	5.5	2
11	Evidence of the dominant role of particle size in controlling the dynamic adsorption breakthrough behavior of gaseous benzene in a microporous carbon bed system. <i>Chemical Engineering Journal</i> , <b>2022</b> , 427, 130977	14.7	2
10	Harnessing Adsorption-Catalysis Synergy: Efficient Oxidative Removal of Gaseous Formaldehyde by a Manganese Dioxide/Metal-Organic Framework Nanocomposite at Room Temperature. <i>Advanced Functional Materials</i> , 2107922	15.6	2

9	Photocatalytic degradation of gaseous benzene using metal oxide nanocomposites. <i>Advances in Colloid and Interface Science</i> , <b>2022</b> , 102696	14.3	2
8	Reactive adsorption and catalytic oxidation of gaseous formaldehyde at room temperature by a synergistic copper-magnesium bimetal oxide biochar composite. <i>Chemical Engineering Journal</i> , <b>2021</b> , 433, 133497	14.7	1
7	Air Pollution and Its Association with the Greenland Ice Sheet Melt. <i>Sustainability</i> , <b>2021</b> , 13, 65	3.6	1
6	Graphitic carbon nitride composites as electro catalysts: Applications in energy conversion/storage and sensing system. <i>Journal of Cleaner Production</i> , <b>2021</b> , 320, 128693	10.3	1
5	Unveiling the collective effects of moisture and oxygen on the photocatalytic degradation of m-Xylene using a titanium dioxide supported platinum catalyst. <i>Chemical Engineering Journal</i> , <b>2022</b> , 439, 135747	14.7	1
4	Low-temperature oxidative removal of gaseous formaldehyde by an eggshell waste supported silver-manganese dioxide bimetallic catalyst with ultralow noble metal content.. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 434, 128857	12.8	0
3	Metal- organic frameworks and their derivatives as anode material in lithium-ion batteries: Recent advances towards novel configurations. <i>International Journal of Energy Research</i> ,	4.5	0
2	Trends in advanced materials for sustainable environmental remediation <b>2022</b> , 1-29		
1	Regeneration strategies for metal-organic frameworks post acidic gas capture. <i>Coordination Chemistry Reviews</i> , <b>2022</b> , 467, 214629	23.2	