

Kumar Vikrant

List of Publications by Year in descending order

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Version: 2024-02-01

62
papers

3,751
citations

136885

32
h-index

128225

60
g-index

63
all docs

63
docs citations

63
times ranked

4051
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent advancements in bioremediation of dye: Current status and challenges. <i>Bioresource Technology</i> , 2018, 253, 355-367.	4.8	409
2	Engineered/designer biochar for the removal of phosphate in water and wastewater. <i>Science of the Total Environment</i> , 2018, 616-617, 1242-1260.	3.9	254
3	Multifunctional applications of biochar beyond carbon storage. <i>International Materials Reviews</i> , 2022, 67, 150-200.	9.4	245
4	Nanomaterials for the adsorptive treatment of Hg(II) ions from water. <i>Chemical Engineering Journal</i> , 2019, 358, 264-282.	6.6	239
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	Potential Utility of Metal-Organic Framework-Based Platform for Sensing Pesticides. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 8797-8817.	4.0	177
7	Biodegradation of methylene blue dye in a batch and continuous mode using biochar as packing media. <i>Environmental Research</i> , 2019, 171, 356-364.	3.7	163
8	Advances in nanomaterial-based electrochemical biosensors for the detection of microbial toxins, pathogenic bacteria in food matrices. <i>Journal of Hazardous Materials</i> , 2021, 401, 123379.	6.5	131
9	Biofiltration of hydrogen sulfide: Trends and challenges. <i>Journal of Cleaner Production</i> , 2018, 187, 131-147.	4.6	105
10	Solar-light-active silver phosphate/titanium dioxide/silica heterostructures for photocatalytic removal of organic dye. <i>Journal of Cleaner Production</i> , 2020, 254, 120031.	4.6	99
11	Photocatalytic mineralization of hydrogen sulfide as a dual-phase technique for hydrogen production and environmental remediation. <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118025.	10.8	89
12	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
13	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> , 2019, 41, 100316.	5.6	76
14	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
15	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
16	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> , 2019, 235, 1090-1102.	4.6	66
17	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
18	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> , 2020, 387, 123943.	6.6	63

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19	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
20	Adsorption properties of advanced functional materials against gaseous formaldehyde. <i>Environmental Research</i> , 2019, 178, 108672.	3.7	57
21	Advances in colorimetric and optical sensing for gaseous volatile organic compounds. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 118, 502-516.	5.8	57
22	Nanomaterials for the abatement of cadmium (II) ions from water/wastewater. <i>Nano Research</i> , 2019, 12, 1489-1507.	5.8	53
23	Facile green synthesis of ZnO@CdWO ₄ nanoparticles and their potential as adsorbents to remove organic dye. <i>Environmental Pollution</i> , 2021, 271, 116401.	3.7	50
24	Nanomaterials as efficient platforms for sensing DNA. <i>Biomaterials</i> , 2019, 214, 119215.	5.7	48
25	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
26	Photocatalytic Platforms for Removal of Ammonia from Gaseous and Aqueous Matrixes: Status and Challenges. <i>ACS Catalysis</i> , 2020, 10, 8683-8716.	5.5	48
27	Carbon Dioxide Capture through Physical and Chemical Adsorption Using Porous Carbon Materials: A Review. <i>Atmosphere</i> , 2022, 13, 397.	1.0	47
28	Magnesium/aluminum layered double hydroxides intercalated with starch for effective adsorptive removal of anionic dyes. <i>Journal of Hazardous Materials</i> , 2022, 424, 127454.	6.5	44
29	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> , 2022, 428, 131177.	6.6	41
30	Removal of Patent Blue (V) Dye Using Indian Bael Shell Biochar: Characterization, Application and Kinetic Studies. <i>Sustainability</i> , 2018, 10, 2669.	1.6	38
31	Bio-filters for the Treatment of VOCs and Odors - A Review. <i>Asian Journal of Atmospheric Environment</i> , 2017, 11, 139-152.	0.4	37
32	Chemisorption of hydrogen sulfide by metal-organic frameworks and covalent-organic polymers based on experimental/theoretical evaluation. <i>Journal of Cleaner Production</i> , 2020, 250, 119486.	4.6	35
33	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> , 2020, 743, 140761.	3.9	31
34	Metal-Organic Frameworks for the Adsorptive Removal of Gaseous Aliphatic Ketones. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 10317-10331.	4.0	31
35	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
36	Photocatalytic degradation of gaseous benzene using metal oxide nanocomposites. <i>Advances in Colloid and Interface Science</i> , 2022, 305, 102696.	7.0	25

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37	Application of Zr-Cluster-Based MOFs for the Adsorptive Removal of Aliphatic Aldehydes (C ₁ to C ₅) from an Industrial Solvent. ACS Applied Materials & Interfaces, 2019, 11, 44270-44281.	4.0	23
38	Reactive adsorption and catalytic oxidation of gaseous formaldehyde at room temperature by a synergistic copper-magnesium bimetal oxide biochar composite. Chemical Engineering Journal, 2022, 433, 133497.	6.6	22
39	Platinized titanium dioxide (Pt/TiO ₂) as a multi-functional catalyst for thermocatalysis, photocatalysis, and photothermal catalysis for removing air pollutants. Applied Materials Today, 2021, 23, 100993.	2.3	21
40	Thermocatalytic oxidation of gaseous benzene by a titanium dioxide supported platinum catalyst. Chemical Engineering Journal, 2022, 428, 131090.	6.6	21
41	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. Science of the Total Environment, 2022, 822, 153605.	3.9	20
42	Unveiling the collective effects of moisture and oxygen on the photocatalytic degradation of m-Xylene using a titanium dioxide supported platinum catalyst. Chemical Engineering Journal, 2022, 439, 135747.	6.6	20
43	Amine-functionalized microporous covalent organic polymers for adsorptive removal of a gaseous aliphatic aldehyde mixture. Environmental Science: Nano, 2020, 7, 3447-3468.	2.2	18
44	Scrolled titanate nanosheet composites with reduced graphite oxide for photocatalytic and adsorptive removal of toxic vapors. Chemical Engineering Journal, 2021, 415, 128907.	6.6	17
45	Progress in bioremediation of pesticide residues in the environment. Environmental Engineering Research, 2021, 26, 200446-0.	1.5	17
46	Use of graphene-based structures as platforms for the trace-level detection of gaseous formaldehyde and insights into their superior sensing potentials. TrAC - Trends in Analytical Chemistry, 2019, 121, 115694.	5.8	16
47	Graphitic carbon nitride composites as electro catalysts: Applications in energy conversion/storage and sensing system. Journal of Cleaner Production, 2021, 320, 128693.	4.6	16
48	Evidence of the dominant role of particle size in controlling the dynamic adsorption breakthrough behavior of gaseous benzene in a microporous carbon bed system. Chemical Engineering Journal, 2022, 427, 130977.	6.6	15
49	Harnessing Adsorption-Catalysis Synergy: Efficient Oxidative Removal of Gaseous Formaldehyde by a Manganese Dioxide/Metal-Organic Framework Nanocomposite at Room Temperature. Advanced Functional Materials, 2022, 32, .	7.8	15
50	The retrograde adsorption phenomenon at the onset of breakthrough and its quantitation: An experimental case study for gaseous toluene on activated carbon surface. Environmental Research, 2019, 178, 108737.	3.7	14
51	Metal-organic framework micromotors: perspectives for environmental applications. Catalysis Science and Technology, 2021, 11, 6592-6600.	2.1	14
52	Evidence of inter-species swing adsorption between aromatic hydrocarbons. Environmental Research, 2020, 181, 108814.	3.7	13
53	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. Environmental Research, 2020, 182, 109024.	3.7	13
54	Thermocatalytic oxidation of a three-component mixture of volatile organic compounds by a titanium dioxide-supported platinum catalyst. Journal of Cleaner Production, 2021, 325, 129279.	4.6	13

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55	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> , 2021, 160, 105624.	2.3	12
56	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> , 2022, 434, 128857.	6.5	12
57	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> , 2022, 46, 13178-13204.	2.2	10
58	Regeneration strategies for metal-organic frameworks post acidic gas capture. <i>Coordination Chemistry Reviews</i> , 2022, 467, 214629.	9.5	9
59	Insights into the storage stability of ammonia in polyester aluminum bags. <i>Environmental Research</i> , 2019, 177, 108596.	3.7	7
60	Insights into critical sources of bias in quantitation of volatile organic compounds based on headspace extraction approach. <i>Microchemical Journal</i> , 2020, 157, 105114.	2.3	3
61	Air Pollution and Its Association with the Greenland Ice Sheet Melt. <i>Sustainability</i> , 2021, 13, 65.	1.6	1
62	Trends in advanced materials for sustainable environmental remediation. , 2022, , 1-29.		1