

Muhammad Usman

List of Publications by Year in descending order

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62
papers

2,737
citations

147801

31
h-index

189892

50
g-index

63
all docs

63
docs citations

63
times ranked

2119
citing authors

#	ARTICLE	IF	CITATIONS
1	A Review of Preparation Methods for Heterogeneous Catalysts. Mini-Reviews in Organic Chemistry, 2022, 19, 92-110.	1.3	16
2	Perovskite-type lanthanum ferrite based photocatalysts: Preparation, properties, and applications. Journal of Energy Chemistry, 2022, 66, 314-338.	12.9	88
3	Advanced Strategies in Metal-Organic Frameworks for CO ₂ Capture and Separation. Chemical Record, 2022, 22, .	5.8	42
4	Pd-promoted heteropolyacid on mesoporous zirconia as a stable and bifunctional catalyst for oxidation of thiophenes. Fuel, 2022, 310, 122462.	6.4	7
5	Simultaneous increase in CO ₂ permeability and selectivity by BIT-72 and modified BIT-72 based mixed matrix membranes. Chemical Engineering Research and Design, 2022, 178, 136-147.	5.6	13
6	Effect of Fineness and Heat Treatment on the Pozzolanic Activity of Natural Volcanic Ash for Its Utilization as Supplementary Cementitious Materials. Crystals, 2022, 12, 302.	2.2	18
7	Significantly improved photocatalytic activity of the SnO ₂ /BiFeO ₃ heterojunction for pollutant degradation and mechanism. Ceramics International, 2022, 48, 14789-14798.	4.8	21
8	A review of metal-organic frameworks/graphitic carbon nitride composites for solar-driven green H ₂ production, CO ₂ reduction, and water purification. Journal of Environmental Chemical Engineering, 2022, 10, 107548.	6.7	59
9	A Review on SAPO-34 Zeolite Materials for CO ₂ Capture and Conversion. Chemical Record, 2022, 22, e202200039.	5.8	30
10	Recent Progress of SAPO-34 Zeolite Membranes for CO ₂ Separation: A Review. Membranes, 2022, 12, 507.	3.0	23
11	Simulation and Modelling of Hydrogen Production from Waste Plastics: Technoeconomic Analysis. Polymers, 2022, 14, 2056.	4.5	18
12	Chalcopyrite UiO-67 metal-organic framework composite for CO ₂ fixation as cyclic carbonates. Journal of Environmental Chemical Engineering, 2022, 10, 108061.	6.7	12
13	Potential Applications of Nickel-Based Metal-Organic Frameworks and their Derivatives. Chemical Record, 2022, 22, .	5.8	38
14	CO ₂ towards fuels: A review of catalytic conversion of carbon dioxide to hydrocarbons. Journal of Environmental Chemical Engineering, 2021, 9, 104756.	6.7	147
15	Progress in layered cathode and anode nanoarchitectures for charge storage devices: Challenges and future perspective. Energy Storage Materials, 2021, 35, 443-469.	18.0	42
16	Prospects for a green methanol thermo-catalytic process from CO ₂ by using MOFs based materials: A mini-review. Journal of CO ₂ Utilization, 2021, 43, 101361.	6.8	59
17	Ruthenium Nanoparticles Intercalated in Montmorillonite (nano-Ru@MMT) Is Highly Efficient Catalyst for the Selective Hydrogenation of 2-Furaldehyde in Benign Aqueous Medium. Catalysts, 2021, 11, 66.	3.5	6
18	Preparation, Functionalization, Modification, and Applications of Nanostructured Gold: A Critical Review. Energies, 2021, 14, 1278.	3.1	42

#	ARTICLE	IF	CITATIONS
19	A High-Performance Asymmetric Supercapacitor Based on Tungsten Oxide Nanoplates and Highly Reduced Graphene Oxide Electrodes. <i>Chemistry - A European Journal</i> , 2021, 27, 6973-6984.	3.3	75
20	Bismuth-Graphene Nanohybrids: Synthesis, Reaction Mechanisms, and Photocatalytic Applications – A Review. <i>Energies</i> , 2021, 14, 2281.	3.1	51
21	Structural Characteristics and Environmental Applications of Covalent Organic Frameworks. <i>Energies</i> , 2021, 14, 2267.	3.1	24
22	Trends and Prospects in UiO-66 Metal-Organic Framework for CO ₂ Capture, Separation, and Conversion. <i>Chemical Record</i> , 2021, 21, 1771-1791.	5.8	48
23	Exploring the environmental and potential therapeutic applications of Myrtus communis L. assisted synthesized zinc oxide (ZnO) and iron doped zinc oxide (Fe-ZnO) nanoparticles. <i>Journal of Saudi Chemical Society</i> , 2021, 25, 101278.	5.2	27
24	Electrochemical Reduction of CO ₂ : A Review of Cobalt Based Catalysts for Carbon Dioxide Conversion to Fuels. <i>Nanomaterials</i> , 2021, 11, 2029.	4.1	60
25	Production of Hydrogen from Low Rank Coal Using Process Integration Framework between Syngas Production Processes: Techno-Economic Analysis. <i>Chemical Engineering and Processing: Process Intensification</i> , 2021, 169, 108639.	3.6	6
26	Cross-linked, porous imidazolium-based poly(ionic liquid)s for CO ₂ capture and utilisation. <i>New Journal of Chemistry</i> , 2021, 45, 16452-16460.	2.8	23
27	Advanced Catalysts for Photoelectrochemical Water Splitting. <i>ACS Applied Energy Materials</i> , 2021, 4, 12007-12031.	5.1	94
28	A Review of Supercapacitors: Materials Design, Modification, and Applications. <i>Energies</i> , 2021, 14, 7779.	3.1	94
29	ZIF-95 as a filler for enhanced gas separation performance of polysulfone membrane. <i>RSC Advances</i> , 2021, 11, 34319-34328.	3.6	11
30	Facile and efficient nitrogen modified porous carbon derived from sugarcane bagasse for CO ₂ capture: Experimental and DFT investigation of nitrogen atoms on carbon frameworks. <i>Chemical Engineering Journal</i> , 2020, 382, 122964.	12.7	75
31	High gas permselectivity in ZIF-302/polyimide self-consistent mixed-matrix membrane. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48513.	2.6	31
32	Hematite and Magnetite Nanostructures for Green and Sustainable Energy Harnessing and Environmental Pollution Control: A Review. <i>Chemical Research in Toxicology</i> , 2020, 33, 1292-1311.	3.3	102
33	CoFe ₂ O ₄ decorated g-C ₃ N ₄ nanosheets: New insights into superoxide anion mediated photomineralization of methylene blue. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104556.	6.7	30
34	Investigation of the photocatalytic potential enhancement of silica monolith decorated tin oxide nanoparticles through experimental and theoretical studies. <i>New Journal of Chemistry</i> , 2020, 44, 13330-13343.	2.8	35
35	Reactive oxygen species: New insights into photocatalytic pollutant degradation over g-C ₃ N ₄ /ZnSe nanocomposite. <i>Applied Surface Science</i> , 2020, 532, 147418.	6.1	44
36	Highly Efficient Permeation and Separation of Gases with Metal-Organic Frameworks Confined in Polymeric Nanochannels. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 49992-50001.	8.0	49

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37	Defect-engineering a metal-organic framework for CO ₂ fixation in the synthesis of bioactive oxazolidinones. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 3571-3577.	6.0	33
38	Nanocomposites of cobalt benzene tricarboxylic acid MOF with rGO: An efficient and robust electrocatalyst for oxygen evolution reaction (OER). <i>Renewable Energy</i> , 2020, 156, 1040-1054.	8.9	108
39	Allyl functionalized UiO-66 metal-organic framework as a catalyst for the synthesis of cyclic carbonates by CO ₂ cycloaddition. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 89, 104-110.	5.8	47
40	Assessment of sulfonated homo and co-polyimides incorporated polysulfone ultrafiltration blend membranes for effective removal of heavy metals and proteins. <i>Scientific Reports</i> , 2020, 10, 7049.	3.3	19
41	Nanoclay-mediated photocatalytic activity enhancement of copper oxide nanoparticles for enhanced methyl orange photodegradation. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 8971-8985.	2.2	47
42	Single-Step Conversion of H ₂ -Deficient Syngas into High Yield of Tetramethylbenzene. <i>ACS Catalysis</i> , 2019, 9, 2203-2212.	11.2	79
43	Advanced cathode materials and efficient electrolytes for rechargeable batteries: practical challenges and future perspectives. <i>Journal of Materials Chemistry A</i> , 2019, 7, 10159-10173.	10.3	37
44	Complexing agents for metal removal using ultrafiltration membranes: a review. <i>Environmental Chemistry Letters</i> , 2019, 17, 1195-1208.	16.2	45
45	Propene Adsorption-Chemisorption Behaviors on H-SAPO-34 Zeolite Catalysts at Different Temperatures. <i>Catalysts</i> , 2019, 9, 919.	3.5	18
46	12-Tungstophosphoric acid niched in Zr-based metal-organic framework: a stable and efficient catalyst for Friedel-Crafts acylation. <i>Science China Chemistry</i> , 2018, 61, 402-411.	8.2	46
47	Poly aromatic hydrocarbon (naphthalene) conversion into value added chemical (tetralin): Activity and stability of MoP/AC catalyst. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 4525-4530.	6.7	18
48	Adsorptive removal of Cd ²⁺ from aqueous solutions by a highly stable covalent triazine-based framework. <i>New Journal of Chemistry</i> , 2018, 42, 10234-10242.	2.8	66
49	Effect of alkene co-feed on the MTO reactions over SAPO-34. <i>Chemical Engineering Journal</i> , 2017, 316, 187-195.	12.7	19
50	Design of parallel cyclones based on stability analysis. <i>AIChE Journal</i> , 2016, 62, 4251-4258.	3.6	14
51	Note: Molecular diffusivity in a small pore zeolite measured by a variable pressure (piezometric) uptake method. <i>Review of Scientific Instruments</i> , 2016, 87, 036101.	1.3	1
52	The influence of straight pore blockage on the selectivity of methanol to aromatics in nanosized Zn/ZSM-5: an atomic Cs-corrected STEM analysis study. <i>RSC Advances</i> , 2016, 6, 74797-74801.	3.6	48
53	Equilibrium analysis of methylbenzene intermediates for a methanol-to-olefins process. <i>Catalysis Science and Technology</i> , 2016, 6, 1297-1301.	4.1	19
54	Highly selective and stable hydrogenation of heavy aromatic-naphthalene over transition metal phosphides. <i>Science China Chemistry</i> , 2015, 58, 738-746.	8.2	31

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55	Novel MoP/HY catalyst for the selective conversion of naphthalene to tetralin. Journal of Industrial and Engineering Chemistry, 2015, 23, 21-26.	5.8	40
56	A highly active and stable Co ₄ Ni ₃ -Al ₂ O ₃ catalyst for CO and CO ₂ methanation to produce synthetic natural gas (SNG). Chemical Engineering Journal, 2015, 262, 1090-1098.	12.7	118
57	Study on the hydrotreatment of C ₉ aromatics over supported multi-metal catalysts on γ-Al ₂ O ₃ . Journal of Renewable and Sustainable Energy, 2014, 6, 033132.	2.0	6
58	Catalytic Methanation of CO and CO ₂ in Coke Oven Gas over Ni ₂ Co/ZrO ₂ –CeO ₂ . Industrial & Engineering Chemistry Research, 2013, 52, 2247-2256.	3.7	170
59	Catalytic hydrotreating of tar to liquid fuel over multi-metals (W-Mo-Ni) catalysts. Journal of Renewable and Sustainable Energy, 2013, 5, .	2.0	22
60	Study on the Hydrotreating Catalysts Containing Phosphorus of Coal Tar to Clean Fuels. Advanced Materials Research, 2012, 531, 263-267.	0.3	8
61	Simultaneous operation of dibenzothiophene hydrodesulfurization and methanol reforming reactions over Pd promoted alumina based catalysts. Journal of Fuel Chemistry and Technology, 2012, 40, 714-720.	2.0	30
62	Production of Gasoline and Diesel from Coal Tar via Its Catalytic Hydrogenation in Serial Fixed Beds. Energy & Fuels, 2012, 26, 3604-3611.	5.1	88