

Umair H Bhatti

List of Publications by Year in descending order

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24
papers

653
citations

567281

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677142

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all docs

24
docs citations

24
times ranked

364
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of Transition Metal Oxide Catalysts on MEA Solvent Regeneration for the Post-Combustion Carbon Capture Process. ACS Sustainable Chemistry and Engineering, 2017, 5, 5862-5868.	6.7	83
2	Performance and Mechanism of Metal Oxide Catalyst-Aided Amine Solvent Regeneration. ACS Sustainable Chemistry and Engineering, 2018, 6, 12079-12087.	6.7	77
3	Metal oxide catalyst-aided solvent regeneration: A promising method to economize post-combustion CO ₂ capture process. Journal of the Taiwan Institute of Chemical Engineers, 2018, 93, 150-157.	5.3	51
4	Catalytic activity of facilely synthesized mesoporous HZSM-5 catalysts for optimizing the CO ₂ desorption rate from CO ₂ -rich amine solutions. Chemical Engineering Journal, 2020, 389, 123439.	12.7	49
5	Efficient Ag ₂ O@Ag ₂ CO ₃ Catalytic Cycle and Its Role in Minimizing the Energy Requirement of Amine Solvent Regeneration for CO ₂ Capture. ACS Sustainable Chemistry and Engineering, 2019, 7, 10234-10240.	6.7	36
6	Energy minimization of carbon capture and storage by means of a novel process configuration. Energy Conversion and Management, 2020, 215, 112871.	9.2	34
7	Ion-exchanged montmorillonite as simple and effective catalysts for efficient CO ₂ capture. Chemical Engineering Journal, 2021, 413, 127476.	12.7	33
8	Practical and inexpensive acid-activated montmorillonite catalysts for energy-efficient CO ₂ capture. Green Chemistry, 2020, 22, 6328-6333.	9.0	29
9	A comprehensive thermodynamic performance assessment of CO ₂ liquefaction and pressurization system using a heat pump for carbon capture and storage (CCS) process. Energy Conversion and Management, 2020, 206, 112489.	9.2	29
10	Design and optimization of CO ₂ pressurization system integrated with a supercritical CO ₂ power cycle for the CO ₂ capture and storage system. Energy Conversion and Management, 2019, 195, 609-619.	9.2	26
11	Nafion/TiO ₂ nanoparticle decorated thin film composite hollow fiber membrane for efficient removal of SO ₂ gas. Separation and Purification Technology, 2019, 211, 377-390.	7.9	25
12	Unraveling the Role of Metal Oxide Catalysts in the CO ₂ Desorption Process from Nonaqueous Sorbents: An Experimental Study Carried out with ¹³ C NMR. ACS Sustainable Chemistry and Engineering, 2021, 9, 15419-15426.	6.7	25
13	Citronellal cyclisation over heteropoly acid supported on modified montmorillonite catalyst: effects of acidity and pore structure on catalytic activity. Research on Chemical Intermediates, 2018, 44, 2405-2423.	2.7	22
14	Experimental Study on the Selective Removal of SO ₂ from a Ship Exhaust Gas Stream Using a Membrane Contactor. Industrial & Engineering Chemistry Research, 2019, 58, 14897-14905.	3.7	20
15	Reducing the efficiency penalty of carbon dioxide capture and compression process in a natural gas combined cycle power plant by process modification and liquefied natural gas cold energy integration. Energy Conversion and Management, 2021, 244, 114495.	9.2	19
16	Advanced post combustion CO ₂ capture process – A systematic approach to minimize thermal energy requirement. Applied Thermal Engineering, 2021, 184, 116285.	6.0	16
17	Facilely Synthesized M-Montmorillonite (M = Cr, Fe, and Co) as Efficient Catalysts for Enhancing CO ₂ Desorption from Amine Solution. Industrial & Engineering Chemistry Research, 2021, 60, 13318-13325.	3.7	15
18	Application of advanced exergy analysis for optimizing the design of carbon dioxide pressurization system. Energy, 2021, 228, 120580.	8.8	14

#	ARTICLE	IF	CITATIONS
19	Selective removal of SO ₂ from coal-fired flue gas by alkaline solvents using a membrane contactor. Chemical Engineering and Processing: Process Intensification, 2020, 147, 107772.	3.6	13
20	One pot menthol synthesis via hydrogenations of citral and citronellal over montmorillonite-supported Pd/Ni-heteropoly acid bifunctional catalysts. Reaction Kinetics, Mechanisms and Catalysis, 2019, 128, 917-934.	1.7	12
21	Modification of postcombustion CO ₂ capture process: A techno-economic analysis. , 2021, 11, 165-182.		10
22	Performance improvement of supercritical carbon dioxide power cycle at elevated heat sink temperatures. Energy, 2022, 239, 122216.	8.8	9
23	Development of catalysts for sulfuric acid decomposition in the sulfur-iodine cycle: a review. Catalysis Reviews - Science and Engineering, 2022, 64, 875-910.	12.9	5
24	Catalytic Characteristics of Metal Catalysts and Nitrate Salt of a Tripodal Ligand in a Basic Medium for Postcombustion CO ₂ Capture Process. ACS Sustainable Chemistry and Engineering, 0, , .	6.7	1