

# Muhammad Aslam

## List of Publications by Year in descending order

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77  
papers

4,562  
citations

66343

42  
h-index

102487

66  
g-index

77  
all docs

77  
docs citations

77  
times ranked

4338  
citing authors

#	ARTICLE	IF	CITATIONS
1	Membrane bioreactors for wastewater treatment: A review of mechanical cleaning by scouring agents to control membrane fouling. <i>Chemical Engineering Journal</i> , 2017, 307, 897-913.	12.7	254
2	Photocatalytic systems as an advanced environmental remediation: Recent developments, limitations and new avenues for applications. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 4143-4164.	6.7	211
3	Anaerobic membrane bioreactors for wastewater treatment: Novel configurations, fouling control and energy considerations. <i>Bioresource Technology</i> , 2019, 283, 358-372.	9.6	183
4	Application of nanotechnology in dark fermentation for enhanced biohydrogen production using inorganic nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 13106-13113.	7.1	159
5	Renewable biohydrogen production from lignocellulosic biomass using fermentation and integration of systems with other energy generation technologies. <i>Science of the Total Environment</i> , 2021, 765, 144429.	8.0	159
6	Microalgae-based biofuels, resource recovery and wastewater treatment: A pathway towards sustainable biorefinery. <i>Fuel</i> , 2019, 255, 115826.	6.4	144
7	A comprehensive overview and recent advances on polyhydroxyalkanoates (PHA) production using various organic waste streams. <i>Bioresource Technology</i> , 2021, 325, 124685.	9.6	138
8	Recent developments in biofouling control in membrane bioreactors for domestic wastewater treatment. <i>Separation and Purification Technology</i> , 2018, 206, 297-315.	7.9	134
9	Gasification of municipal solid waste blends with biomass for energy production and resources recovery: Current status, hybrid technologies and innovative prospects. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 136, 110375.	16.4	134
10	An overview on advancements in biobased transesterification methods for biodiesel production: Oil resources, extraction, biocatalysts, and process intensification technologies. <i>Fuel</i> , 2021, 285, 119117.	6.4	121
11	The effect of fluidized media characteristics on membrane fouling and energy consumption in anaerobic fluidized membrane bioreactors. <i>Separation and Purification Technology</i> , 2014, 132, 10-15.	7.9	110
12	Low energy single-staged anaerobic fluidized bed ceramic membrane bioreactor (AFCMBR) for wastewater treatment. <i>Bioresource Technology</i> , 2017, 240, 33-41.	9.6	107
13	Anaerobic membrane bioreactor towards biowaste biorefinery and chemical energy harvest: Recent progress, membrane fouling and future perspectives. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 115, 109392.	16.4	103
14	A state of the art review on biomass processing and conversion technologies to produce hydrogen and its recovery via membrane separation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 15166-15195.	7.1	102
15	A brief review of anaerobic membrane bioreactors emphasizing recent advancements, fouling issues and future perspectives. <i>Journal of Environmental Management</i> , 2020, 270, 110909.	7.8	101
16	Anaerobic membrane bioreactors for biohydrogen production: Recent developments, challenges and perspectives. <i>Bioresource Technology</i> , 2018, 269, 452-464.	9.6	100
17	Valorization of spent coffee grounds into biofuels and value-added products: Pathway towards integrated bio-refinery. <i>Fuel</i> , 2019, 254, 115640.	6.4	100
18	Integrated valorization of waste cooking oil and spent coffee grounds for biodiesel production: Blending with higher alcohols, FTIR, TGA, DSC and NMR characterizations. <i>Fuel</i> , 2019, 244, 419-430.	6.4	97

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19	Membrane separation processes for dehydration of bioethanol from fermentation broths: Recent developments, challenges, and prospects. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 105, 427-443.	16.4	94
20	Biodiesel production by valorizing waste Phoenix dactylifera L. Kernel oil in the presence of synthesized heterogeneous metallic oxide catalyst (Mn@MgO-ZrO <sub>2</sub> ). <i>Energy Conversion and Management</i> , 2018, 155, 128-137.	9.2	90
21	Energy saving anammox technology-based nitrogen removal and bioenergy recovery from wastewater: Inhibition mechanisms, state-of-the-art control strategies, and prospects. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 135, 110126.	16.4	89
22	Novel staged anaerobic fluidized bed ceramic membrane bioreactor: Energy reduction, fouling control and microbial characterization. <i>Journal of Membrane Science</i> , 2018, 553, 200-208.	8.2	84
23	Recent developments on sewage sludge pyrolysis and its kinetics: Resources recovery, thermogravimetric platforms, and innovative prospects. <i>Computers and Chemical Engineering</i> , 2021, 150, 107325.	3.8	74
24	Biofouling of membranes in microbial electrochemical technologies: Causes, characterization methods and mitigation strategies. <i>Bioresource Technology</i> , 2019, 279, 327-338.	9.6	71
25	Biofuels and biorefineries: Development, application and future perspectives emphasizing the environmental and economic aspects. <i>Journal of Environmental Management</i> , 2021, 297, 113268.	7.8	66
26	Valorization of underutilized waste biomass from invasive species to produce biochar for energy and other value-added applications. <i>Environmental Research</i> , 2020, 186, 109596.	7.5	60
27	Fuels properties, characterizations and engine and emission performance analyses of ternary waste cooking oil biodiesel-diesel-propanol blends. <i>Sustainable Energy Technologies and Assessments</i> , 2019, 35, 321-334.	2.7	56
28	A critical review on limitations and enhancement strategies associated with biohydrogen production. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 16565-16590.	7.1	55
29	Emergent green technologies for cost-effective valorization of microalgal biomass to renewable fuel products under a biorefinery scheme. <i>Chemical Engineering Journal</i> , 2021, 415, 128932.	12.7	55
30	SO <sub>3</sub> H functionalized UiO-66 nanocrystals in Polysulfone based mixed matrix membranes: Synthesis and application for efficient CO <sub>2</sub> capture. <i>Separation and Purification Technology</i> , 2019, 224, 524-533.	7.9	54
31	Valorization of solid waste biomass by inoculation for the enhanced yield of biogas. <i>Clean Technologies and Environmental Policy</i> , 2020, 22, 513-522.	4.1	54
32	A review on valorization of spent coffee grounds (SCG) towards biopolymers and biocatalysts production. <i>Bioresource Technology</i> , 2020, 314, 123800.	9.6	54
33	Valorization of spent coffee grounds recycling as a potential alternative fuel resource in Turkey: An experimental study. <i>Journal of the Air and Waste Management Association</i> , 2018, 68, 196-214.	1.9	53
34	Microalgae: A prospective low cost green alternative for nanoparticle synthesis. <i>Current Opinion in Environmental Science and Health</i> , 2021, 20, 100163.	4.1	52
35	A modelling approach to study the fouling of an anaerobic membrane bioreactor for industrial wastewater treatment. <i>Bioresource Technology</i> , 2017, 245, 207-215.	9.6	51
36	Submerged low-cost pyrophyllite ceramic membrane filtration combined with GAC as fluidized particles for industrial wastewater treatment. <i>Chemosphere</i> , 2018, 206, 784-792.	8.2	51

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37	Biogas to liquefied biomethane: Assessment of 3P's Production, processing, and prospects. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 119, 109561.	16.4	51
38	Greener and sustainable production of bioethylene from bioethanol: current status, opportunities and perspectives. <i>Reviews in Chemical Engineering</i> , 2022, 38, 185-207.	4.4	49
39	Particle-sparged anaerobic membrane bioreactor with fluidized polyethylene terephthalate beads for domestic wastewater treatment: Modelling approach and fouling control. <i>Bioresource Technology</i> , 2018, 258, 263-269.	9.6	46
40	Integrated valorization of <i>Moringa oleifera</i> and waste <i>Phoenix dactylifera</i> L. dates as potential feedstocks for biofuels production from Algerian Sahara: An experimental perspective. <i>Biocatalysis and Agricultural Biotechnology</i> , 2019, 20, 101234.	3.1	46
41	Facile CO <sub>2</sub> Separation in Composite Membranes. <i>Chemical Engineering and Technology</i> , 2019, 42, 30-44.	1.5	45
42	Analysis of membrane fouling with porous membrane filters by microbial suspensions for autotrophic nitrogen transformations. <i>Separation and Purification Technology</i> , 2015, 146, 284-293.	7.9	44
43	Macroscopic approach to develop fouling model under GAC fluidization in anaerobic fluidized bed membrane bioreactor. <i>Journal of Industrial and Engineering Chemistry</i> , 2017, 49, 219-229.	5.8	44
44	Performance evaluation of microbial electrochemical systems operated with Nafion and supported ionic liquid membranes. <i>Chemosphere</i> , 2017, 175, 350-355.	8.2	40
45	A state-of-the-art review on spent coffee ground (SCG) pyrolysis for future biorefinery. <i>Chemosphere</i> , 2022, 286, 131730.	8.2	39
46	NO and SO <sub>2</sub> emissions in palm kernel shell catalytic steam gasification with in-situ CO <sub>2</sub> adsorption for hydrogen production in a pilot-scale fluidized bed gasification system. <i>Journal of Cleaner Production</i> , 2019, 236, 117636.	9.3	38
47	Trends and progress in AnMBR for domestic wastewater treatment and their impacts on process efficiency and membrane fouling. <i>Environmental Technology and Innovation</i> , 2021, 21, 101204.	6.1	35
48	Metatranscriptomic evidence for classical and RuBisCO-mediated CO <sub>2</sub> reduction to methane facilitated by direct interspecies electron transfer in a methanogenic system. <i>Scientific Reports</i> , 2019, 9, 4116.	3.3	30
49	Investigating membrane fouling associated with GAC fluidization on membrane with effluent from anaerobic fluidized bed bioreactor in domestic wastewater treatment. <i>Environmental Science and Pollution Research</i> , 2019, 26, 1170-1180.	5.3	29
50	Cleaner fuel production from waste <i>Phoenix dactylifera</i> L. kernel oil in the presence of a bimetallic catalyst: Optimization and kinetics study. <i>Energy Conversion and Management</i> , 2017, 146, 195-204.	9.2	25
51	Modelling approach to better control biofouling in fluidized bed membrane bioreactor for wastewater treatment. <i>Chemosphere</i> , 2018, 191, 136-144.	8.2	25
52	CO <sub>2</sub> separation by supported liquid membranes synthesized with natural deep eutectic solvents. <i>Environmental Science and Pollution Research</i> , 2021, 28, 33994-34008.	5.3	25
53	Two-way switch: Maximizing productivity of tilted panel in membrane bioreactor. <i>Journal of Environmental Management</i> , 2018, 228, 529-537.	7.8	24
54	Bioreactors, gas delivery systems and supporting technologies for microbial synthesis gas conversion process. <i>Bioresource Technology Reports</i> , 2019, 7, 100207.	2.7	23

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55	Perspective of safflower ( <i>Carthamus tinctorius</i> ) as a potential biodiesel feedstock in Turkey: characterization, engine performance and emissions analyses of butanol-biodiesel-diesel blends. <i>Biofuels</i> , 2020, 11, 715-731.	2.4	23
56	Integrated adsorption steam gasification for enhanced hydrogen production from palm waste at bench scale plant. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 30581-30591.	7.1	23
57	Flowsheet Modeling and Simulation of Biomass Steam Gasification for Hydrogen Production. <i>Chemical Engineering and Technology</i> , 2020, 43, 649-660.	1.5	21
58	Carbon molecular sieve production from defatted spent coffee ground using ZnCl <sub>2</sub> and benzene for gas purification. <i>Fuel</i> , 2020, 277, 118183.	6.4	20
59	Membrane scouring to control fouling under fluidization of non-adsorbing media for wastewater treatment. <i>Environmental Science and Pollution Research</i> , 2019, 26, 1061-1071.	5.3	19
60	Trends in Biological Nutrient Removal for the Treatment of Low Strength Organic Wastewaters. <i>Current Pollution Reports</i> , 2021, 7, 1-30.	6.6	17
61	Spent coffee grounds based circular bioeconomy: Technoeconomic and commercialization aspects. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 152, 111721.	16.4	17
62	Valorization of waste date seeds-bio-glycerol for synthesizing oxidative green fuel additive. <i>Journal of Cleaner Production</i> , 2017, 165, 1090-1096.	9.3	16
63	Simultaneous production of bioelectricity and biogas from chicken droppings and dairy industry wastewater employing bioelectrochemical system. <i>Fuel</i> , 2019, 256, 115902.	6.4	16
64	Hydrocarbons fuel upgradation in the presence of modified bi-functional catalyst. <i>Journal of Cleaner Production</i> , 2018, 198, 683-692.	9.3	15
65	Rheological improvement in performance of low-rank coal-water slurries using novel cost-effective additives. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2020, 15, e2400.	1.5	15
66	Mixed matrix membranes incorporated with sonication-assisted ZIF-8 nanofillers for hazardous wastewater treatment. <i>Environmental Science and Pollution Research</i> , 2019, 26, 35913-35923.	5.3	14
67	Synergistic solution of CO <sub>2</sub> capture by novel lanthanide-based MOF-76 yttrium nanocrystals in mixed-matrix membranes. <i>Energy and Environment</i> , 2020, 31, 692-712.	4.6	14
68	Wind speed pattern data and wind energy potential in Pakistan: current status, challenging platforms and innovative prospects. <i>Environmental Science and Pollution Research</i> , 2021, 28, 34051-34073.	5.3	13
69	A forecasting model approach of sustainable electricity management by developing adaptive neuro-fuzzy inference system. <i>Environmental Science and Pollution Research</i> , 2020, 27, 17607-17618.	5.3	9
70	Wastewater based microalgae valorization for biofuel and value-added products recovery. <i>Sustainable Energy Technologies and Assessments</i> , 2022, 53, 102443.	2.7	7
71	CO <sub>2</sub> from waste to resource by developing novel mixed matrix membranes. <i>Environmental Science and Pollution Research</i> , 2021, 28, 12397-12405.	5.3	6
72	Kinematic Measurements of Novel Chaotic Micromixers to Enhance Mixing Performances at Low Reynolds Numbers: Comparative Study. <i>Micromachines</i> , 2021, 12, 364.	2.9	6

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73	Hazardous wastewater treatment by low-cost sorbent with in situ regeneration using hybrid solar energy-electrochemical system. <i>Water Environment Research</i> , 2021, 93, 1554-1561.	2.7	5
74	Enhancement of Mixing Performance of Two-Layer Crossing Micromixer through Surrogate-Based Optimization. <i>Micromachines</i> , 2021, 12, 211.	2.9	4
75	Metal organic frameworks-based mixed matrix membranes for gas separation. , 2020, , 273-292.		3
76	Performance Enhancement of the Micromixer by the Multiobjective Genetic Algorithm and Surrogate Model Based on a Navier-Stokes Analysis Using Trade-Off Objective Functions. <i>Mathematical Problems in Engineering</i> , 2021, 2021, 1-10.	1.1	1
77	Alumina Membrane Bioreactor. , 2020, , 115-139.		0