Shadi W. Hasan

List of Publications by Citations

113 papers	3,446 citations	27 h-index	56 g-index
116 ext. papers	4,440 ext. citations	7.4 avg, IF	6.18 L-index

#	Paper	IF	Citations
113	Recent advancements in forward osmosis desalination: A review. *Chemical Engineering Journal*, **2015**, 281, 502-522	14.7	294
112	Heavy crude oil viscosity reduction and rheology for pipeline transportation. *Fuel*, **2010**, 89, 1095-1100	7.1	282
111	Principles and applications of direct contact membrane distillation (DCMD): A comprehensive review. *Desalination*, **2016**, 398, 222-246	10.3	206
110	Recent improvements in oily wastewater treatment: Progress, challenges, and future opportunities. *Journal of Environmental Sciences*, **2015**, 37, 15-30	6.4	202
109	A short review on reverse osmosis pretreatment technologies. *Desalination*, **2014**, 354, 30-38	10.3	202
108	Recent applications of nanomaterials in water desalination: A critical review and future opportunities. *Desalination*, **2015**, 367, 37-48	10.3	178
107	Brine management methods: Recent innovations and current status. *Desalination*, **2017**, 407, 1-23	10.3	154
106	Rheological properties of heavy & light crude oil mixtures for improving flowability. *Journal of Petroleum Science and Engineering*, **2012**, 81, 122-128	4.4	125
105	A critical review on recent polymeric and nano-enhanced membranes for reverse osmosis. *RSC Advances*, **2016**, 6, 8134-8163	3.7	94
104	Recent advances in humidification dehumidification (HDH) desalination processes: Improved designs and productivity. *Renewable and Sustainable Energy Reviews*, **2016**, 57, 929-944	16.2	79
103	Start-up period investigation of pilot-scale submerged membrane electro-bioreactor (SMEBR) treating raw municipal wastewater. *Chemosphere*, **2014**, 97, 71-7	8.4	73
102	Experimental investigation and artificial neural networks ANNs modeling of electrically-enhanced membrane bioreactor for wastewater treatment. *Journal of Water Process Engineering*, **2016**, 11, 88-97	6.7	70
101	Detection and quantification of SARS-CoV-2 RNA in wastewater and treated effluents: Surveillance of COVID-19 epidemic in the United Arab Emirates. *Science of the Total Environment*, **2021**, 764, 142929	10.2	70
100	Biomimetic membranes: A critical review of recent progress. *Desalination*, **2017**, 420, 403-424	10.3	69
99	Humidification–dehumidification desalination process driven by photovoltaic thermal energy recovery (PV-HDH) for small-scale sustainable water and power production. *Desalination*, **2016**, 377, 163-171	10.3	68
98	Can machine language and artificial intelligence revolutionize process automation for water treatment and desalination?. *Desalination*, **2019**, 458, 84-96	10.3	67
97	Correlations between trans-membrane pressure (TMP) and sludge properties in submerged membrane electro-bioreactor (SMEBR) and conventional membrane bioreactor (MBR). *Bioresource Technology*, **2012**, 120, 199-205	11	63

96	Impact of continuous and intermittent supply of electric field on the function and microbial community of wastewater treatment electro-bioreactors. *Electrochimica Acta*, **2015**, 181, 271-279	6.7	55
95	Synthesis of super hydrophilic cellulose-alpha zirconium phosphate ion exchange membrane via surface coating for the removal of heavy metals from wastewater. *Science of the Total Environment*, **2019**, 690, 167-180	10.2	46
94	Leaching of PVP from PVDF/PVP blend membranes: impacts on membrane structure and fouling in membrane bioreactors. *Journal of Materials Science*, **2016**, 51, 4328-4341	4.3	41
93	Enhanced sludge properties and distribution study of sludge components in electrically-enhanced membrane bioreactor. *Journal of Environmental Management*, **2015**, 159, 78-85	7.9	40
92	Fabrication of blend polyvinylidene fluoride/chitosan membranes for enhanced flux and fouling resistance. *Separation and Purification Technology*, **2018**, 190, 68-76	8.3	38
91	Preparation of novel polyvinylidene fluoride (PVDF)-Tin(IV) oxide (SnO2) ion exchange mixed matrix membranes for the removal of heavy metals from aqueous solutions. *Separation and Purification Technology*, **2020**, 250, 117250	8.3	36
90	Thin film deposition techniques for polymeric membranes□A review. *Journal of Membrane Science*, **2020**, 610, 118258	9.6	35
89	3D printing and surface imprinting technologies for water treatment: A review. *Journal of Water Process Engineering*, **2019**, 31, 100786	6.7	32
88	Supercritical carbon dioxide extraction of plant phytochemicals for biological and environmental applications - A review. *Chemosphere*, **2021**, 271, 129525	8.4	32
87	Are pharmaceuticals removal and membrane fouling in electromembrane bioreactor affected by current density?. *Science of the Total Environment*, **2019**, 692, 732-740	10.2	27
86	Fabrication of novel polyethersulfone (PES) hybrid ultrafiltration membranes with superior permeability and antifouling properties using environmentally friendly sulfonated functionalized polydopamine nanofillers. *Separation and Purification Technology*, **2021**, 261, 118311	8.3	27
85	Theoretical investigation of the influence of operating conditions on the treatment performance of an electrically-induced membrane bioreactor. *Journal of Water Process Engineering*, **2015**, 6, 72-82	6.7	26
84	Emerging contaminants in the water bodies of the Middle East and North Africa (MENA): A critical review. *Science of the Total Environment*, **2021**, 754, 142177	10.2	26
83	A critical review on nanomaterials membrane bioreactor (NMs-MBR) for wastewater treatment. *Npj Clean Water*, **2020**, 3,	11.2	25
82	Polyvinylidene fluoride (PVDF)-□irconium phosphate (□ZrP) nanoparticles based mixed matrix membranes for removal of heavy metal ions. *Chemosphere*, **2021**, 267, 128896	8.4	25
81	Correlation between bacterial community structure and performance efficiency of a full-scale wastewater treatment plant. *Journal of Water Process Engineering*, **2020**, 37, 101472	6.7	24
80	Novel polyethersulfone-functionalized graphene oxide (PES-fGO) mixed matrix membranes for wastewater treatment. *Separation and Purification Technology*, **2020**, 241, 116735	8.3	24
79	Photocatalytic ozonation under visible light for the remediation of water effluents and its integration with an electro-membrane bioreactor. *Chemosphere*, **2018**, 209, 534-541	8.4	24

78	Indoor versus outdoor transmission of SARS-COV-2: environmental factors in virus spread and underestimated sources of risk. *Euro-Mediterranean Journal for Environmental Integration*, **2021**, 6, 30	1.7	21
77	Performance tests and removal mechanisms of aerated electrocoagulation in the treatment of oily wastewater. *Journal of Water Process Engineering*, **2020**, 36, 101290	6.7	20
76	Polyethersulfone hybrid ultrafiltration membranes fabricated with polydopamine modified ZnFe2O4 nanocomposites: Applications in humic acid removal and oil/water emulsion separation. *Chemical Engineering Research and Design*, **2021**, 148, 813-824	5.5	20
75	Numerical modeling of an electrically enhanced membrane bioreactor (MBER) treating medium-strength wastewater. *Journal of Environmental Management*, **2015**, 164, 1-9	7.9	19
74	Surface modification of anti-fouling novel cellulose/graphene oxide (GO) nanosheets (NS) microfiltration membranes for seawater desalination applications. *Journal of Chemical Technology and Biotechnology*, **2020**, 95, 1915-1925	3.5	19
73	Novel graphene nanoplatelets-coated polyethylene membrane for the treatment of reject brine by pilot-scale direct contact membrane distillation: An optimization study. *Desalination*, **2018**, 441, 9-20	10.3	18
72	Assessment of Microbial Community Structure and Function in Serially Passaged Wastewater Electro-Bioreactor Sludge: An Approach to Enhance Sludge Settleability. *Scientific Reports*, **2018**, 8, 7013	4.9	18
71	Nanoporous hollow fiber polyethersulfone membranes for the removal of residual contaminants from treated wastewater effluent: Functional and molecular implications. *Separation and Purification Technology*, **2017**, 189, 20-31	8.3	18
70	GO, SiO2, and SnO2 nanomaterials as highly efficient adsorbents for Zn2+ from industrial wastewater: A second stage treatment to electrically enhanced membrane bioreactor. *Journal of Water Process Engineering*, **2019**, 31, 100815	6.7	16
69	Synthesis of polyethersulfone (PES)/GO-SiO mixed matrix membranes for oily wastewater treatment. *Water Science and Technology*, **2020**, 81, 1354-1364	2.2	16
68	Synthesis of polybenzimidazole (PBI) forward osmosis (FO) membrane and computational fluid dynamics (CFD) modeling of concentration gradient across membrane surface. *Desalination*, **2019**, 452, 17-28	10.3	15
67	Ozonation-assisted electro-membrane hybrid reactor for oily wastewater treatment: A methodological approach and synergy effects. *Journal of Cleaner Production*, **2021**, 289, 125764	10.3	15
66	Novel thermosiphon-powered reverse osmosis: Techno-economic model for renewable energy and fresh water recovery. *Desalination*, **2018**, 435, 152-160	10.3	14
65	Effect of hydraulic retention time on microbial community structure in wastewater treatment electro-bioreactors. *MicrobiologyOpen*, **2018**, 7, e00590	3.4	13
64	Molecular and ionic-scale chemical mechanisms behind the role of nitrocyl group in the electrochemical removal of heavy metals from sludge. *Scientific Reports*, **2016**, 6, 31828	4.9	13
63	Oily wastewater treatment via phase-inverted polyethersulfone-maghemite (PES/Fe2O3) composite membranes. *Journal of Water Process Engineering*, **2020**, 37, 101545	6.7	13
62	Preparation of TiO/SiO ceramic membranes via dip coating for the treatment of produced water. *Chemosphere*, **2021**, 273, 129684	8.4	13
61	Wastewater treatment and fouling control in an electro algae-activated sludge membrane bioreactor. *Science of the Total Environment*, **2021**, 786, 147475	10.2	13

60	Effect of flow rate, draw solution concentration and temperature on the performance of TFC FO membrane, and the potential use of RO reject brine as a draw solution in FO-RO hybrid systems136, 65-71		12
59	Development of Polyethersulfone/Zirconium phosphate (PES/ZrP) flat-sheet nanocomposite ultrafiltration membranes. *Chemical Engineering Research and Design*, **2020**, 161, 206-217	5.5	12
58	Membrane oscillation and slot (pore) blocking in oilwater separation. *Chemical Engineering Research and Design*, **2019**, 142, 111-120	5.5	12
57	Detection and removal of waterborne enteric viruses from wastewater: A comprehensive review. *Journal of Environmental Chemical Engineering*, **2021**, 9, 105613	6.8	12
56	Valorization of groundnut shell via pyrolysis: Product distribution, thermodynamic analysis, kinetic estimation, and artificial neural network modeling. *Chemosphere*, **2021**, 283, 131162	8.4	12
55	Synthesis of polydopamine coated tungsten oxide@ poly(vinylidene fluoride-co-hexafluoropropylene) electrospun nanofibers as multifunctional membranes for water applications. *Chemical Engineering Journal*, **2022**, 427, 131021	14.7	12
54	Influence of silica nanoparticles on the desalination performance of forward osmosis polybenzimidazole membranes. *Desalination*, **2020**, 491, 114441	10.3	11
53	Hybrid capacitive deionization of NaCl and toxic heavy metal ions using faradic electrodes of silver nanospheres decorated pomegranate peel-derived activated carbon. *Environmental Research*, **2021**, 197, 111110	7.9	11
52	Polymers for Membrane Filtration in Water Purification. *Springer Series on Polymer and Composite Materials*, **2019**, 167-190	0.9	11
51	Combined process of electrically-membrane bioreactor and TiO2 aerogel filtration for efficient wastewater treatment. *Journal of Water Process Engineering*, **2019**, 28, 107-114	6.7	10
50	Impact of current density on the function and microbial community structure in electro-bioreactors. *Journal of Hazardous Materials*, **2019**, 368, 877-884	12.8	10
49	Designed assembly of Ni/MAX (TiAlC) and porous graphene-based asymmetric electrodes for capacitive deionization of multivalent ions. *Chemosphere*, **2021**, 266, 129048	8.4	10
48	Membrane fouling mitigation techniques for oily wastewater: A short review. *Journal of Water Process Engineering*, **2021**, 43, 102293	6.7	10
47	Highly selective heavy metal ions membranes combining sulfonated polyethersulfone and self-assembled manganese oxide nanosheets on positively functionalized graphene oxide nanosheets. *Chemical Engineering Journal*, **2022**, 428, 131267	14.7	10
46	Nucleophilic-functionalized cyclodextrin-polyethersulfone structures from facile lamination process as nanoporous membrane active layers for wastewater post-treatment: Molecular implications. *Journal of Membrane Science*, **2018**, 563, 914-925	9.6	9
45	Selectivity of Nanoporous MnO2 and TiO2 Membranes for Residual Contaminants in Treated Wastewater. *Chemical Engineering and Technology*, **2018**, 41, 413-420	2	8
44	Electrokinetic pretreatment of seawater to decrease the Ca2 +, Mg2 +, SO42 and bacteria contents in membrane desalination applications. *Desalination*, **2017**, 403, 107-116	10.3	7
43	Introducing membrane specie permeability coefficient and economic assessment of polycomposite membrane bioreactor integrated with electric field. *Journal of Water Process Engineering*, **2017**, 19, 338-345	6.7	7

42	Fe and Zn removal from steel making industrial wastewater by electrically enhanced membrane bioreactor93, 9-21		7
41	Enhanced water permeability and fouling resistance properties of ultrafiltration membranes incorporated with hydroxyapatite decorated orange-peel-derived activated carbon nanocomposites. *Chemosphere*, **2022**, 286, 131799	8.4	7
40	Sustainable Treatment of Food Industry Wastewater Using Membrane Technology: A Short Review. *Water (Switzerland)*, **2021**, 13, 3450	3	6
39	Quorum sensing control and wastewater treatment in quorum quenching/ submerged membrane electro-bioreactor (SMEBR(QQ)) hybrid system. *Biomass and Bioenergy*, **2019**, 128, 105329	5.3	5
38	Highly selective etherification of fructose and 5-hydroxymethylfurfural over a novel Pd-Ru/MXene catalyst for sustainable liquid fuel production. *International Journal of Energy Research*, **2021**, 45, 14680-14691	4.5	5
37	Rheological and physicochemical characterization of UAE crude oil. *Petroleum Science and Technology*, **2016**, 34, 659-664	1.4	5
36	Surface tuned polyethersulfone membrane using an iron oxide functionalized halloysite nanocomposite for enhanced humic acid removal. *Environmental Research*, **2021**, 204, 112113	7.9	5
35	Enhanced water flux and bacterial resistance in cellulose acetate membranes with quaternary ammoniumpropylated polysilsesquioxane. *Chemosphere*, **2021**, 289, 133144	8.4	4
34	Polymerization of lactic acid produced from food waste by metal oxide-assisted dark fermentation. *Environmental Technology and Innovation*, **2021**, 24, 101862	7	4
33	Brine Management in Desalination Plants **2017**, 207-236		3
32	Impregnation of polyethylene membranes with 1-butyl-3-methylimidazolium dicyanamide ionic liquid for enhanced removal of Cd2+, Ni2+, and Zn2+ from aqueous solutions. *Journal of Molecular Liquids*, **2020**, 318, 113981	6	3
31	Self-forming Dynamic Membranes for Wastewater Treatment. *Separation and Purification Reviews*,1-17	7.3	3
30	Thin film composite forward osmosis membranes based on thermally treated PAN hydrophilized PVDF electrospun nanofiber substrates for improved performance. *Journal of Environmental Chemical Engineering*, **2021**, 9, 106240	6.8	3
29	Innovative encapsulated self-forming dynamic bio-membrane bioreactor (ESFDMBR) for efficient wastewater treatment and fouling control. *Science of the Total Environment*, **2022**, 805, 150296	10.2	3
28	An overview of biodegradable poly (lactic acid) production from fermentative lactic acid for biomedical and bioplastic applications. *Biomass Conversion and Biorefinery*,1	2.3	3
27	Recent developments in hazardous pollutants removal from wastewater and water reuse within a circular economy. *Npj Clean Water*, **2022**, 5,	11.2	3
26	Numerical modeling of an integrated OMBR-NF hybrid system for simultaneous wastewater reclamation and brine management. *Euro-Mediterranean Journal for Environmental Integration*, **2019**, 4, 1	1.7	2
25	Asymmetrical ultrafiltration membranes based on polylactic acid for the removal of organic substances from wastewater. *Journal of Water Process Engineering*, **2022**, 45, 102510	6.7	2

24	Statistical Relationship Between Dissolved and Suspended Components in An Electrically-Enhanced Membrane Bioreactor for Municipal Wastewater Treatment **2016**,		2
23	Renewable Energy-Powered Membrane Systems for Water Desalination **2019**, 153-177		2
22	Three-Dimensional Graphene/MWCNT-MnO2 Nanocomposites for High-Performance Capacitive Deionization (CDI) Application. *Journal of Electroanalytical Chemistry*, **2022**, 116318	4.1	2
21	Full-Scale Membrane Distillation Systems and Performance Improvement Through Modeling **2019**, 105-140		1
20	Technoproductive evaluation of the energyless microbial-integrated diffusion dialysis technique for acid mine drainage valorization. *Environmental Science: Water Research and Technology*, **2020**, 6, 1217-1229	4.2	1
19	Supercritical Technology-Based Date Sugar Powder Production: Process Modeling and Simulation. *Processes*, **2022**, 10, 257	2.9	1
18	Highly permeable, environmentally-friendly, antifouling polylactic acid-hydroxyapatite/polydopamine (PLA-HAp/PDA) ultrafiltration membranes. *Journal of Cleaner Production*, **2022**, 330, 129871	10.3	1
17	Surface-engineered polyethersulfone membranes with inherent Fe-Mn bimetallic oxides for improved permeability and antifouling capability. *Environmental Research*, **2022**, 204, 112390	7.9	1
16	Integrated electrochemical-adsorption process for the removal of trace heavy metals from wastewater. *Case Studies in Chemical and Environmental Engineering*, **2021**, 4, 100147	7.5	1
15	An overview of microalgae biomass as a sustainable aquaculture feed ingredient: food security and circular economy.. *Bioengineered*, **2022**, 13, 9521-9547	5.7	1
14	Development of green polylactic acid asymmetric ultrafiltration membranes for nutrient removal.. *Science of the Total Environment*, **2022**, 824, 153869	10.2	1
13	Fuzzy Logic-Based Model to Predict the Impact of Flow Rate and Turbidity on the Performance of Multimedia Filters. *Journal of Environmental Engineering, ASCE*, **2017**, 143, 04017065	2	0
12	An integrated algal membrane photobioreactor as a green-transition technology for the carbon capture and utilization. *Journal of Environmental Chemical Engineering*, **2022**, 10, 107344	6.8	0
11	A conceptual framework modeling of functional microbial communities in wastewater treatment electro-bioreactors. *Water Science and Technology*, **2020**, 82, 3047-3061	2.2	0
10	Recent advances in the biosensors application for the detection of bacteria and viruses in wastewater.. *Journal of Environmental Chemical Engineering*, **2022**, 10, 107070	6.8	0
9	Mechanistic insights into the selective mass-transport and fabrication of holey graphene-based membranes for water purification applications. *Chemical Engineering Journal*, **2022**, 431, 134248	14.7	0
8	Impact of electrodes configuration in an electrokinetic cell for oil-water separation. *Case Studies in Chemical and Environmental Engineering*, **2021**, 4, 100135	7.5	0
7	Supercritical CO2 pretreatment of date fruit biomass for enhanced recovery of fruit sugars. *Sustainable Energy Technologies and Assessments*, **2022**, 52, 102231	4.7	0

6	Optimization of an rGO-based biosensor for the sensitive detection of bovine serum albumin: Effect of electric field on detection capability.. *Chemosphere*, **2022**, 134700	8.4	0
5	Integrating Pressure Retarded Osmosis and Membrane Distillation **2019**, 351-363		
4	Advancements of Electrically Enhanced Membrane Bioreactor (eMBR) for Wastewater Treatment via Coupling with Novel Inorganic and Polymeric Mixed Matrix Membranes. *Advances in Science, Technology and Innovation*, **2020**, 469-472	0.3	
3	Integrated and hybrid processes for oily wastewater treatment **2021**, 313-337		
2	Electrochemical treatment of petroleum wastewater: standalone and integrated processes **2022**, 171-183		
1	Electrochemical membrane bioreactors for wastewater treatment **2022**, 163-194		