

Hassan A Arafat

List of Publications by Year in descending order

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126
papers

9,352
citations

30070

54
h-index

40979

93
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128
all docs

128
docs citations

128
times ranked

8366
citing authors

#	ARTICLE	IF	CITATIONS
1	Scaling and fouling in membrane distillation for desalination applications: A review. <i>Desalination</i> , 2015, 356, 294-313.	8.2	607
2	A review of polymeric membranes and processes for potable water reuse. <i>Progress in Polymer Science</i> , 2018, 81, 209-237.	24.7	483
3	Photothermal Membrane Distillation for Seawater Desalination. <i>Advanced Materials</i> , 2017, 29, 1603504.	21.0	422
4	Effect of chemical surface heterogeneity on the adsorption mechanism of dissolved aromatics on activated carbon. <i>Carbon</i> , 2000, 38, 1807-1819.	10.3	408
5	Fabrication and characterization of polyvinylidene fluoride-co-hexafluoropropylene (PVDF-HFP) electrospun membranes for direct contact membrane distillation. <i>Journal of Membrane Science</i> , 2013, 428, 104-115.	8.2	301
6	Membrane technology in microalgae cultivation and harvesting: A review. <i>Biotechnology Advances</i> , 2014, 32, 1283-1300.	11.7	255
7	Reduction of food waste generation in the hospitality industry. <i>Journal of Cleaner Production</i> , 2016, 132, 129-145.	9.3	205
8	Environmental performance and energy recovery potential of five processes for municipal solid waste treatment. <i>Journal of Cleaner Production</i> , 2015, 105, 233-240.	9.3	186
9	Energy efficiency comparison of single-stage membrane distillation (MD) desalination cycles in different configurations. <i>Desalination</i> , 2012, 290, 54-66.	8.2	182
10	Membrane distillation research & implementation: Lessons from the past five decades. <i>Separation and Purification Technology</i> , 2017, 189, 108-127.	7.9	174
11	Preparation of thin-film-composite polyamide membranes for desalination using novel hydrophilic surface modifying macromolecules. <i>Journal of Membrane Science</i> , 2008, 325, 166-175.	8.2	165
12	Effect of temperature-dependent microstructure evolution on pore wetting in PTFE membranes under membrane distillation conditions. <i>Journal of Membrane Science</i> , 2013, 429, 282-294.	8.2	157
13	Development of antifouling thin-film-composite membranes for seawater desalination. <i>Journal of Membrane Science</i> , 2011, 367, 110-118.	8.2	155
14	Nanocrystalline cellulose reinforced PVDF-HFP membranes for membrane distillation application. <i>Desalination</i> , 2014, 332, 134-141.	8.2	153
15	Membrane fouling and cleaning in long term plant-scale membrane distillation operations. <i>Journal of Membrane Science</i> , 2014, 468, 360-372.	8.2	146
16	Technical evaluation of stand-alone solar powered membrane distillation systems. <i>Desalination</i> , 2012, 286, 332-341.	8.2	136
17	3D printed triply periodic minimal surfaces as spacers for enhanced heat and mass transfer in membrane distillation. <i>Desalination</i> , 2018, 443, 256-271.	8.2	135
18	Ultrafiltration of polysaccharide-protein mixtures: Elucidation of fouling mechanisms and fouling control by membrane surface modification. <i>Separation and Purification Technology</i> , 2008, 63, 558-565.	7.9	134

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19	Solid waste management in the hospitality industry: A review. <i>Journal of Environmental Management</i> , 2014, 146, 320-336.	7.8	124
20	Economic evaluation of stand-alone solar powered membrane distillation systems. <i>Desalination</i> , 2012, 299, 55-62.	8.2	122
21	3D printed feed spacers based on triply periodic minimal surfaces for flux enhancement and biofouling mitigation in RO and UF. <i>Desalination</i> , 2018, 425, 12-21.	8.2	122
22	Understanding wetting phenomena in membrane distillation and how operational parameters can affect it. <i>Journal of Membrane Science</i> , 2016, 515, 163-174.	8.2	119
23	Energy efficiency of permeate gap and novel conductive gap membrane distillation. <i>Journal of Membrane Science</i> , 2016, 502, 171-178.	8.2	119
24	Effect of dry-out on the fouling of PVDF and PTFE membranes under conditions simulating intermittent seawater membrane distillation (SWMD). <i>Journal of Membrane Science</i> , 2013, 438, 126-139.	8.2	114
25	Modeling and comparative assessment of municipal solid waste gasification for energy production. <i>Waste Management</i> , 2013, 33, 1704-1713.	7.4	108
26	Effect of Salt on the Mechanism of Adsorption of Aromatics on Activated Carbon. <i>Langmuir</i> , 1999, 15, 5997-6003.	3.5	105
27	Pore structure control of PVDF membranes using a 2-stage coagulation bath phase inversion process for application in membrane distillation (MD). <i>Journal of Membrane Science</i> , 2014, 452, 470-480.	8.2	104
28	Trends and problems of solid waste management in developing countries: A case study in seven Palestinian districts. <i>Waste Management</i> , 2007, 27, 1910-1919.	7.4	100
29	Techno-economic analysis of MED and RO desalination powered by low-enthalpy geothermal energy. <i>Desalination</i> , 2015, 365, 277-292.	8.2	100
30	Photocatalytic hollow fiber membranes for the degradation of pharmaceutical compounds in wastewater. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 5014-5024.	6.7	88
31	Combining air recharging and membrane superhydrophobicity for fouling prevention in membrane distillation. <i>Journal of Membrane Science</i> , 2016, 505, 241-252.	8.2	87
32	Development of eco-efficient micro-porous membranes via electrospinning and annealing of poly (lactic acid). <i>Journal of Membrane Science</i> , 2013, 436, 57-67.	8.2	84
33	Membrane structure and surface morphology impact on the wetting of MD membranes. <i>Journal of Membrane Science</i> , 2015, 483, 94-103.	8.2	81
34	Effects of membrane properties on water production cost in small scale membrane distillation systems. <i>Desalination</i> , 2012, 306, 60-71.	8.2	77
35	Thin film deposition techniques for polymeric membranes. A review. <i>Journal of Membrane Science</i> , 2020, 610, 118258.	8.2	77
36	When plasmonics meets membrane technology. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 363003.	1.8	75

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37	Enhanced solid waste management by understanding the effects of gender, income, marital status, and religious convictions on attitudes and practices related to street littering in Nablus " Palestinian territory. <i>Waste Management</i> , 2009, 29, 449-455.	7.4	73
38	3D printed spacers for organic fouling mitigation in membrane distillation. <i>Journal of Membrane Science</i> , 2019, 581, 331-343.	8.2	73
39	Macro-corrugated and nano-patterned hierarchically structured superomniphobic membrane for treatment of low surface tension oily wastewater by membrane distillation. <i>Water Research</i> , 2020, 174, 115600.	11.3	73
40	Flux stabilization in membrane distillation desalination of seawater and brine using corrugated PVDF membranes. <i>Journal of Membrane Science</i> , 2015, 495, 404-414.	8.2	70
41	A systematic study of the impact of hydrophobicity on the wetting of MD membranes. <i>Journal of Membrane Science</i> , 2016, 520, 850-859.	8.2	69
42	How green solar desalination really is? Environmental assessment using life-cycle analysis (LCA) approach. <i>Desalination</i> , 2012, 287, 123-131.	8.2	68
43	Boron removal in new generation reverse osmosis (RO) membranes using two-pass RO without pH adjustment. <i>Desalination</i> , 2013, 310, 50-59.	8.2	68
44	High-Flux, Antifouling Hydrophilized Ultrafiltration Membranes with Tunable Charge Density Combining Sulfonated Poly(ether sulfone) and Aminated Graphene Oxide Nanohybrid. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 1617-1627.	8.0	67
45	A comparative study of image analysis and porometry techniques for characterization of porous membranes. <i>Journal of Materials Science</i> , 2016, 51, 2017-2032.	3.7	66
46	PVDF/magnetite blend membranes for enhanced flux and salt rejection in membrane distillation. <i>Desalination</i> , 2018, 436, 69-80.	8.2	64
47	Mass transfer analysis of ultrafiltration using spacers based on triply periodic minimal surfaces: Effects of spacer design, directionality and voidage. <i>Journal of Membrane Science</i> , 2018, 561, 89-98.	8.2	64
48	Optimization of lignin recovery from sugarcane bagasse using ionic liquid aided pretreatment. <i>Cellulose</i> , 2017, 24, 3191-3207.	4.9	63
49	Influence of socio-economic factors on street litter generation in the Middle East: effects of education level, age, and type of residence. <i>Waste Management and Research</i> , 2007, 25, 363-370.	3.9	62
50	3D printed spacers based on TPMS architectures for scaling control in membrane distillation. <i>Journal of Membrane Science</i> , 2019, 581, 38-49.	8.2	62
51	Reverse electrodialysis powered greenhouse concept for water- and energy-self-sufficient agriculture. <i>Applied Energy</i> , 2017, 187, 390-409.	10.1	61
52	Fabrication of blend polyvinylidene fluoride/chitosan membranes for enhanced flux and fouling resistance. <i>Separation and Purification Technology</i> , 2018, 190, 68-76.	7.9	61
53	Title is missing!. <i>Adsorption</i> , 2003, 9, 311-319.	3.0	60
54	Porous Ti ₃ C ₂ T _x MXene Membranes for Highly Efficient Salinity Gradient Energy Harvesting. <i>ACS Nano</i> , 2022, 16, 792-800.	14.6	60

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55	Water security in the GCC countries: challenges and opportunities. <i>Journal of Environmental Studies and Sciences</i> , 2014, 4, 329-346.	2.0	59
56	Polyvinylidene fluoride (PVDF)- ZrP nanoparticles based mixed matrix membranes for removal of heavy metal ions. <i>Chemosphere</i> , 2021, 267, 128896.	8.2	57
57	Immobilization of phenol in cement-based solidified/stabilized hazardous wastes using regenerated activated carbon: leaching studies. <i>Journal of Hazardous Materials</i> , 1999, 70, 117-138.	12.4	56
58	Eggshell: A green adsorbent for heavy metal removal in an MBR system. <i>Ecotoxicology and Environmental Safety</i> , 2015, 121, 57-62.	6.0	54
59	Poly (sodium-4-styrenesulfonate) assisted ultrafiltration for methylene blue dye removal from simulated wastewater: Optimization using response surface methodology. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 2008-2022.	6.7	54
60	Leaching of PVP from PVDF/PVP blend membranes: impacts on membrane structure and fouling in membrane bioreactors. <i>Journal of Materials Science</i> , 2016, 51, 4328-4341.	3.7	54
61	Boron extraction from aqueous medium using novel hydrophobic deep eutectic solvents. <i>Chemical Engineering Journal</i> , 2020, 395, 125173.	12.7	54
62	Recent Developments in the Rational Fabrication of Thin Film Nanocomposite Membranes for Water Purification and Desalination. <i>ACS Omega</i> , 2020, 5, 3792-3800.	3.5	53
63	Wind-powered desalination for strategic water storage: Techno-economic assessment of concept. <i>Desalination</i> , 2017, 408, 36-51.	8.2	51
64	Raw Juice Concentration by Osmotic Membrane Distillation Process with Hydrophobic Polymeric Membranes. <i>Food and Bioprocess Technology</i> , 2015, 8, 2146-2158.	4.7	49
65	3D printed photocatalytic feed spacers functionalized with FeOOH nanorods inducing pollutant degradation and membrane cleaning capabilities in water treatment. <i>Applied Catalysis B: Environmental</i> , 2022, 300, 120318.	20.2	49
66	Capital cost estimation of RO plants: GCC countries versus southern Europe. <i>Desalination</i> , 2014, 347, 103-111.	8.2	48
67	Analytical techniques for boron quantification supporting desalination processes: A review. <i>Desalination</i> , 2013, 310, 9-17.	8.2	47
68	Reversing membrane wetting in membrane distillation: comparing dryout to backwashing with pressurized air. <i>Environmental Science: Water Research and Technology</i> , 2017, 3, 930-939.	2.4	47
69	Shrinkage, defect and membrane distillation performance of composite PVDF membranes. <i>Desalination</i> , 2015, 376, 62-72.	8.2	44
70	Simple and effective corrugation of PVDF membranes for enhanced MBR performance. <i>Journal of Membrane Science</i> , 2015, 475, 91-100.	8.2	44
71	The effects of iCVD film thickness and conformality on the permeability and wetting of MD membranes. <i>Journal of Membrane Science</i> , 2017, 523, 470-479.	8.2	43
72	Novel static mixers based on triply periodic minimal surface (TPMS) architectures. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104289.	6.7	42

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73	Estimation of liquid entry pressure in hydrophobic membranes using CFD tools. <i>Journal of Membrane Science</i> , 2018, 552, 68-76.	8.2	40
74	Towards Sustainable Water Quality: Management of Rainwater Harvesting Cisterns in Southern Palestine. <i>Water Resources Management</i> , 2011, 25, 1721-1736.	3.9	37
75	Ultrafiltration versus sedimentation-based pretreatment in Fujairah-1 RO plant: Environmental impact study. <i>Desalination</i> , 2013, 317, 55-66.	8.2	37
76	Interplay of food security, agriculture and tourism within GCC countries. <i>Global Food Security</i> , 2016, 9, 1-9.	8.1	37
77	Development of PVDF membranes for membrane distillation via vapour induced crystallisation. <i>European Polymer Journal</i> , 2016, 77, 164-173.	5.4	37
78	Nanofiltration based water reclamation from tannery effluent following coagulation pretreatment. <i>Ecotoxicology and Environmental Safety</i> , 2015, 121, 22-30.	6.0	35
79	CNT/PVP blend PVDF membranes for the removal of organic pollutants from simulated treated wastewater effluent. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 6733-6740.	6.7	33
80	Decreasing membrane fouling during <i>Chlorella vulgaris</i> broth filtration via membrane development and coagulant assisted filtration. <i>Algal Research</i> , 2015, 9, 55-64.	4.6	31
81	Chemical and microbiological quality of desalinated water, groundwater and rain-fed cisterns in the Gaza strip, Palestine. <i>Desalination</i> , 2009, 249, 1165-1170.	8.2	30
82	Comparative Life Cycle Assessment (LCA) of streetlight technologies for minor roads in United Arab Emirates. <i>Energy for Sustainable Development</i> , 2013, 17, 438-450.	4.5	30
83	An integrated framework for sustainability assessment of seawater desalination. <i>Desalination</i> , 2018, 447, 1-17.	8.2	30
84	Comparative performance assessment of flat sheet and hollow fiber DCMD processes using CFD modeling. <i>Separation and Purification Technology</i> , 2019, 212, 709-722.	7.9	29
85	Polydopamine-coated graphene oxide nanosheets embedded in sulfonated poly(ether sulfone) hybrid UF membranes with superior antifouling properties for water treatment. <i>Chemical Engineering Journal</i> , 2022, 433, 133526.	12.7	29
86	Life cycle assessment of natural gas combined cycle integrated with CO ₂ post combustion capture using chemical solvent. <i>International Journal of Greenhouse Gas Control</i> , 2013, 19, 441-452.	4.6	28
87	Experimental Verification of Caustic-Side Solvent Extraction for Removal of Cesium from Tank Waste. <i>Solvent Extraction and Ion Exchange</i> , 2003, 21, 505-526.	2.0	27
88	Fouling resistant, high flux, charge tunable hybrid ultrafiltration membranes using polymer chains grafted graphene oxide for NOM removal. <i>Chemical Engineering Journal</i> , 2021, 408, 127300.	12.7	27
89	Numerical models of solar distillation device: Present and previous. <i>Desalination</i> , 2013, 311, 173-181.	8.2	26
90	Functional groups docking on PVDF membranes: Novel Piranha approach. <i>European Polymer Journal</i> , 2017, 96, 414-428.	5.4	26

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91	Tunable separation via chemical functionalization of polyvinylidene fluoride membranes using piranha reagent. <i>Journal of Membrane Science</i> , 2017, 541, 567-579.	8.2	26
92	Negative Pressure Membrane Distillation for Excellent Gypsum Scaling Resistance and Flux Enhancement. <i>Environmental Science & Technology</i> , 2022, 56, 1405-1412.	10.0	26
93	Nanoporous hollow fiber polyethersulfone membranes for the removal of residual contaminants from treated wastewater effluent: Functional and molecular implications. <i>Separation and Purification Technology</i> , 2017, 189, 20-31.	7.9	25
94	CFD-based genetic programming model for liquid entry pressure estimation of hydrophobic membranes. <i>Desalination</i> , 2020, 476, 114231.	8.2	25
95	Antiscalting 3D printed feed spacers via facile nanoparticle coating for membrane distillation. <i>Water Research</i> , 2021, 189, 116649.	11.3	25
96	The sociopolitical factors impacting the adoption and proliferation of desalination: A critical review. <i>Desalination</i> , 2021, 498, 114798.	8.2	25
97	Liquification of 2,2,4-trimethyl-1,3-pentanediol into hydrophobic eutectic mixtures: A multi-criteria design for eco-efficient boron recovery. <i>Chemical Engineering Journal</i> , 2021, 426, 131342.	12.7	24
98	Immobilization of phenol in cement-based solidified/stabilized hazardous wastes using regenerated activated carbon: role of carbon. <i>Journal of Hazardous Materials</i> , 1999, 70, 139-156.	12.4	21
99	Leaching Behavior of Selected Aromatics in Cement-Based Solidification/Stabilization under Different Leaching Tests. <i>Environmental Engineering Science</i> , 1999, 16, 451-463.	1.6	19
100	One-dimensional modeling of pervaporation systems using a semi-empirical flux model. <i>Separation and Purification Technology</i> , 2017, 174, 502-512.	7.9	19
101	Synergistic effect of humic acid on alkali pretreatment of sugarcane bagasse for the recovery of lignin with phenomenal properties. <i>Biomass and Bioenergy</i> , 2020, 134, 105486.	5.7	19
102	Computational fluid dynamics modeling for performance assessment of permeate gap membrane distillation. <i>Journal of Membrane Science</i> , 2018, 568, 55-66.	8.2	17
103	Comparative assessment of the effects of 3D printed feed spacers on process performance in MD systems. <i>Desalination</i> , 2021, 503, 114940.	8.2	17
104	Poly(vinylidene fluoride)-Based Membranes for Microalgae Filtration. <i>Chemical Engineering and Technology</i> , 2018, 41, 1305-1312.	1.5	15
105	On the Adsorption of Aromatics on Oxygenated Activated Carbon in Nonaqueous Adsorption Media. <i>Separation Science and Technology</i> , 2005, 39, 43-62.	2.5	14
106	Impacts of feed spacer design on UF membrane cleaning efficiency. <i>Journal of Membrane Science</i> , 2020, 616, 118571.	8.2	14
107	Multifunctional hybrid UF membrane from poly(ether sulfone) and quaternized polydopamine anchored reduced graphene oxide nanohybrid for water treatment. <i>Journal of Membrane Science</i> , 2021, 639, 119779.	8.2	14
108	Decomposition of hazardous organic materials in the solidification/stabilization process using catalytic-activated carbon. <i>Waste Management</i> , 2001, 21, 343-356.	7.4	12

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109	A review of residential solid waste management in the occupied Palestinian Territory: a window for improvement?. Waste Management and Research, 2010, 28, 481-488.	3.9	12
110	Fouling mechanisms in ultrafiltration under constant flux: Effect of feed spacer design. Chemical Engineering Journal, 2022, 446, 136563.	12.7	12
111	Activation of PVDF membranes through facile hydroxylation of the polymeric dope. Journal of Materials Research, 2017, 32, 4219-4231.	2.6	11
112	Covalent surface entanglement of polyvinylidene fluoride membranes with carbon nanotubes. European Polymer Journal, 2018, 100, 153-164.	5.4	10
113	A mixed matrix polyimide ultrafiltration membrane for efficient removal of bentazon from water. Chemical Engineering Journal, 2022, 433, 134596.	12.7	10
114	Hybrid NF and UF membranes tailored using quaternized polydopamine for enhanced removal of salts and organic pollutants from water. Desalination, 2022, 539, 115954.	8.2	10
115	Simple physical treatment for the reuse of wastewater from textile industry in the Middle East. Journal of Environmental Engineering and Science, 2007, 6, 115-122.	0.8	9
116	A new vacuum membrane distillation system using an aspirator: concept modeling and optimization. Desalination and Water Treatment, 2016, 57, 12915-12928.	1.0	9
117	Utilizing Buckingham Pi theorem and multiple regression analysis in scaling up direct contact membrane distillation processes. Desalination, 2022, 528, 115606.	8.2	8
118	The application of in situ formed mixed iron oxides in the removal of strontium and actinides from nuclear tank waste. AIChE Journal, 2010, 56, 3012-3020.	3.6	7
119	Household-level determinants of residential solid waste generation rates: a study from Nablus-Palestine. Journal of Material Cycles and Waste Management, 2015, 17, 725-735.	3.0	6
120	Implementation of two multiphase flow methods in modeling wetting of microporous hydrophobic membranes. Science of the Total Environment, 2019, 691, 1251-1261.	8.0	6
121	Advanced Material-Ordered Nanotubular Ceramic Membranes Covalently Capped with Single-Wall Carbon Nanotubes. Materials, 2018, 11, 739.	2.9	5
122	Reclamation of contaminated groundwater using cooking oils in a novel, eco-friendly and high-efficiency solvent extraction process. Desalination, 2013, 321, 9-21.	8.2	4
123	Effects of prevailing conditions during second Palestinian uprising on solid waste management system in Nablus city in Palestine. International Journal of Environmental Health Research, 2006, 16, 281-287.	2.7	3
124	Utilisation of drinking water from rainwater-harvesting cisterns in the Palestinian territories: assessment of contamination risk. International Journal of Environment and Waste Management, 2012, 9, 358.	0.3	2
125	Preparation of Biodegradable Poly(lactic Acid) Electrospun Membrane with Decreased Pore Size by Post Heat Treatment. Key Engineering Materials, 2013, 594-595, 260-269.	0.4	0
126	Feedstock Availability, Composition, New Potential Resources for Biohydrogen, Biomethane, and Biobutanol Production via Biotechnological Routes. , 2017, , 261-276.		0