Moshe Herzberg

List of Publications by Year
in descending order

77	5,157	101384	88477
papers	citations	36 h-index	70 g-index

79	79	79	6636
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Antibacterial Effects of Carbon Nanotubes: Size Does Matter!. Langmuir, 2008, 24, 6409-6413.	1.6	1,003
2	Biofouling of reverse osmosis membranes: Role of biofilm-enhanced osmotic pressure. Journal of Membrane Science, 2007, 295, 11-20.	4.1	517
3	Role of Extracellular Polymeric Substances (EPS) in Biofouling of Reverse Osmosis Membranes. Environmental Science & Technology, 2009, 43, 4393-4398.	4.6	338
4	Motility influences biofilm architecture in Escherichia coli. Applied Microbiology and Biotechnology, 2006, 72, 361-367.	1.7	286
5	YdgG (TqsA) Controls Biofilm Formation in Escherichia coli K-12 through Autoinducer 2 Transport. Journal of Bacteriology, 2006, 188, 587-598.	1.0	192
6	Relation between EPS adherence, viscoelastic properties, and MBR operation: Biofouling study with QCM-D. Water Research, 2011, 45, 6430-6440.	5.3	120
7	Functional Freeâ€Standing Graphene Honeycomb Films. Advanced Functional Materials, 2013, 23, 2972-2978.	7.8	116
8	Bacterial Attachment and Viscoelasticity: Physicochemical and Motility Effects Analyzed Using Quartz Crystal Microbalance with Dissipation (QCM-D). Environmental Science & Technology, 2013, 47, 398-404.	4.6	105
9	Extracellular Polymeric Substances (EPS) in a Hybrid Growth Membrane Bioreactor (HG-MBR): Viscoelastic and Adherence Characteristics. Environmental Science & Technology, 2010, 44, 8636-8643.	4.6	104
10	The role of alginate inPseudomonas aeruginosaEPS adherence, viscoelastic properties and cell attachment. Biofouling, 2011, 27, 787-798.	0.8	93
11	Physiology and genetic traits of reverse osmosis membrane biofilms: a case study with Pseudomonas aeruginosa. ISME Journal, 2008, 2, 180-194.	4.4	88
12	The influence of antiscalants on biofouling of RO membranes in seawater desalination. Water Research, 2013, 47, 3389-3398.	5.3	86
13	Pseudomonas aeruginosa Attachment on QCM-D Sensors: The Role of Cell and Surface Hydrophobicities. Langmuir, 2012, 28, 6396-6402.	1.6	85
14	Influence of biofouling on boron removal by nanofiltration and reverse osmosis membranes. Journal of Membrane Science, 2008, 318, 264-270.	4.1	77
15	Impact of microfiltration treatment of secondary wastewater effluent on biofouling of reverse osmosis membranes. Water Research, 2010, 44, 167-176.	5.3	76
16	Acceleration of protease effect on Staphylococcus aureus biofilm dispersal. FEMS Microbiology Letters, 2012, 335, 31-38.	0.7	75
17	Side effects of antiscalants on biofouling of reverse osmosis membranes in brackish water desalination. Journal of Membrane Science, 2015, 481, 172-187.	4.1	72
18	Surface Properties and Reduced Biofouling of Graft-Copolymers That Possess Oppositely Charged Groups. Biomacromolecules, 2011, 12, 1169-1177.	2.6	70

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19	Chemical and Physical Factors in Design of Antibiofouling Polymer Coatings. Biomacromolecules, 2011, 12, 2681-2685.	2.6	70
20	Assessing biofouling resistance of a polyamide reverse osmosis membrane surface-modified with a zwitterionic polymer. Journal of Membrane Science, 2016, 520, 490-498.	4.1	64
21	Improvement of virus removal using ultrafiltration membranes modified with grafted zwitterionic polymer hydrogels. Water Research, 2017, 116, 86-94.	5.3	63
22	â€˜Should I stay or should I go?â€™ Bacterial attachmentvsbiofilm formation on surface-modified membranes. Biofouling, 2014, 30, 367-376.	0.8	62
23	pH effects on the adherence and fouling propensity of extracellular polymeric substances in a membrane bioreactor. Journal of Membrane Science, 2011, 378, 186-193.	4.1	59
24	New insights on early stages of RO membranes fouling during tertiary wastewater desalination. Journal of Membrane Science, 2014, 466, 26-35.	4.1	54
25	Cellulose effects on morphology and elasticity of Vibrio fischeri biofilms. Npj Biofilms and Microbiomes, 2016, 2, 1.	2.9	54
26	Biofouling of reverse-osmosis membranes during tertiary wastewater desalination: Microbial community composition. Water Research, 2014, 50, 341-349.	5.3	53
27	Assessment of pathogenic bacteria in treated graywater and irrigated soils. Science of the Total Environment, 2013, 458-460, 298-302.	3.9	50
28	Biofouling of Reverse Osmosis Membranes: Positively Contributing Factors of Sphingomonas. Environmental Science & Technology, 2014, 48, 13941-13950.	4.6	46
29	Drought effect on biocrust resilience: High-speed winds result in crust burial and crust rupture and flaking. Science of the Total Environment, 2017, 579, 848-859.	3.9	45
30	The effect of electric fields on bacterial attachment to conductive surfaces. Soft Matter, 2013, 9, 2443.	1.2	43
31	Effects of shear rate on biofouling of reverse osmosis membrane during tertiary wastewater desalination. Journal of Membrane Science, 2013, 427, 390-398.	4.1	43
32	A switchable zwitterionic membrane surface chemistry for biofouling control. Journal of Membrane Science, 2018, 548, 490-501.	4.1	43
33	Influence of Electric Fields on Biofouling of Carbonaceous Electrodes. Environmental Science & Technology, 2017, 51, 10022-10030.	4.6	41
34	Impact of Higher Alginate Expression on Deposition of Pseudomonas aeruginosa in Radial Stagnation Point Flow and Reverse Osmosis Systems. Environmental Science & Technology, 2009, 43, 7376-7383.	4.6	40
35	Patchy Biofilm Coverage Can Explain the Potential Advantage of BGAC Reactors. Environmental Science & Technology, 2003, 37, 4274-4280.	4.6	39
36	Biofouling of reverse-osmosis membranes under different shear rates during tertiary wastewater desalination: Microbial community composition. Water Research, 2014, 67, 86-95.	5.3	39

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37	Influence of surface charge on the rate, extent, and structure of adsorbed Bovine Serum Albumin to gold electrodes. Journal of Colloid and Interface Science, 2015, 460, 321-328.	5.0	38
38	Biofouling of reverse osmosis membranes: effects of cleaning on biofilm microbial communities, membrane performance, and adherence of extracellular polymeric substances. Biofouling, 2017, 33, 397-409.	0.8	38
39	Type 4 pili are dispensable for biofilm development in the cyanobacterium Synechococcus elongatus. Environmental Microbiology, 2017, 19, 2862-2872.	1.8	38
40	A zwitterionic block-copolymer, based on glutamic acid and lysine, reduces the biofouling of UF and RO membranes. Journal of Membrane Science, 2018, 549, 507-514.	4.1	38
41	Induced organic fouling with antiscalants in seawater desalination. Desalination, 2014, 352, 158-165.	4.0	34
42	Performance of different configurations of hybrid growth membrane bioreactor (HG-MBR) for treatment of mixed wastewater. Desalination, 2012, 284, 261-268.	4.0	33
43	Reduced Bacterial Deposition and Attachment by Quorum-Sensing Inhibitor 4-Nitro-pyridine-N-oxide: The Role of Physicochemical Effects. Langmuir, 2010, 26, 12089-12094.	1.6	31
44	Initial Deposition and Pioneering Colonization on Polymeric Membranes of Anaerobes Isolated from an Anaerobic Membrane Bioreactor (AnMBR). Environmental Science & Technology, 2020, 54, 5832-5842.	4.6	25
45	Exopolysaccharides may increase biocrust rigidity and induce runoff generation. Journal of Hydrology, 2020, 588, 125081.	2.3	25
46	The effect of UV pre-treatment on biofouling of BWRO membranes: A field study. Desalination and Water Treatment, 2011, 31, 151-163.	1.0	24
47	Impact of Physical and Chemical Cleaning Agents on Specific Biofilm Components and the Implications for Membrane Biofouling Management. Industrial & Engineering Chemistry Research, 2018, 57, 3359-3370.	1.8	24
48	In-situ graft-polymerization modification of commercial ultrafiltration membranes for long-term fouling resistance in a pilot-scale membrane bioreactor. Chemical Engineering Journal, 2020, 382, 122865.	6.6	24
49	A novel approach for SWRO desalination plants operation, comprising single pass boron removal and reuse of CO2 in the post treatment step. Chemical Engineering Journal, 2012, 187, 275-282.	6.6	23
50	Glycosphingolipids Enhance Bacterial Attachment and Fouling of Nanofiltration Membranes. Environmental Science and Technology Letters, 2015, 2, 43-47.	3.9	22
51	Ambivalent role of calcium in the viscoelastic properties of extracellular polymeric substances and the consequent fouling of reverse osmosis membranes. Desalination, 2018, 429, 12-19.	4.0	22
52	Antifouling Properties of a Self-Assembling Glutamic Acid-Lysine Zwitterionic Polymer Surface Coating. Langmuir, 2019, 35, 1699-1713.	1.6	21
53	Interactions of Glycosphingolipids and Lipopolysaccharides with Silica and Polyamide Surfaces: Adsorption and Viscoelastic Properties. Biomacromolecules, 2014, 15, 2128-2137.	2.6	20
54	Viscoelastic Properties of Extracellular Polymeric Substances Can Strongly Affect Their Washing Efficiency from Reverse Osmosis Membranes. Environmental Science & Technology, 2016, 50, 9206-9213.	4.6	20

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55	Revisiting interrelated effects of extracellular polysaccharides during biofouling of reverse osmosis membranes: Viscoelastic properties and biofilm enhanced osmotic pressure. Journal of Membrane Science, 2017, 523, 394-401.	4.1	20
56	Bacterial biofilm formation on ion exchange membranes. Journal of Membrane Science, 2020, 596, 117564.	4.1	20
57	Diminished Swelling of Cross-Linked Aromatic Oligoamide Surfaces Revealing a New Fouling Mechanism of Reverse-Osmosis Membranes. Environmental Science & Technology, 2015, 49, 6815-6822.	4.6	18
58	Biofilm Formation and Biofouling Development on Different Ultrafiltration Membranes by Natural Anaerobes from an Anaerobic Membrane Bioreactor. Environmental Science & Technology, 2022, 56, 10339-10348.	4.6	18
59	Visualization of active biomass distribution in a BGAC fluidized bed reactor using GFP tagged Pseudomonas putida F1. Water Research, 2006, 40, 2704-2712.	5.3	16
60	Biofilm formation on RO membranes: the impact of seawater pretreatment. Desalination and Water Treatment, 2016, 57, 4741-4748.	1.0	14
61	Simultaneous removal of atrazine and nitrate using a biological granulated activated carbon(BGAC) reactor. Journal of Chemical Technology and Biotechnology, 2004, 79, 626-631.	1.6	13
62	Efficient Prevention of Marine Biofilm Formation Employing a Surface-Grafted Repellent Marine Peptide. ACS Applied Bio Materials, 2021, 4, 3360-3373.	2.3	13
63	Biopolymer-induced calcium phosphate scaling in membrane-based water treatment systems: Langmuir model films studies. Colloids and Surfaces B: Biointerfaces, 2016, 143, 233-242.	2.5	12
64	Biofouling control by UV/H₂O₂ pretreatment for brackish water reverse osmosis process. Environmental Science: Water Research and Technology, 2018, 4, 1331-1344.	1.2	12
65	Increased biofilm activity in BGAC reactors. AICHE Journal, 2005, 51, 1042-1047.	1.8	11
66	Osmotic effects of biofouling in reverse osmosis (RO) processes: Physical and physiological measurements and mechanisms. Desalination and Water Treatment, 2010, 15, 287-291.	1.0	11
67	Bacteriocin expression in sessile and planktonic populations of Escherichia coli. Journal of Antibiotics, 2015, 68, 52-55.	1.0	11
68	Surface Cell Density Effects on Escherichia coli Gene Expression during Cell Attachment. Environmental Science & Technology, 2013, 47, 6223-6230.	4.6	9
69	Hybrid growth membrane bioreactor (HG-MBR): The indirect impact of sludge retention time on membrane fouling. Desalination and Water Treatment, 2009, 10, 27-32.	1.0	8
70	Mitigation of Biofilm Colonization on Various Surfaces in a Model Water Flow System by Use of UV Treatment. Water, Air, and Soil Pollution, 2016, 227, 1.	1.1	8
71	Impact of pretreatment on RO membrane organic fouling: composition and adhesion of tertiary wastewater effluent organic matter. Environmental Science: Water Research and Technology, 2021, 7, 775-788.	1.2	7
72	A new, energy-efficient approach for boron removal from SWRO plants. Desalination and Water Treatment, 2013, 51, 1651-1656.	1.0	5

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73	Acidification and decarbonization in seawater: Potential pretreatment steps for biofouling control in SWRO membranes. Desalination, 2019, 467, 86-94.	4.0	5
74	Real-time analysis of atrazine biodegradation and sessile bacterial growth: A quartz crystal microbalance with dissipation monitoring study. Chemosphere, 2019, 225, 871-879.	4.2	5
75	Powdered Activated Carbon Exacerbates Fouling in MBR Treating Olive Mill Wastewater. Water (Switzerland), 2019, 11, 2498.	1.2	4
76	Sustainable micropollutant bioremediation via stormwater biofiltration system. Water Research, 2022, 214, 118188.	5.3	4
77	Analysis of membrane bioreactor performance for wastewater treatment using ranking methods. Toxicological and Environmental Chemistry, 2016, , 1-18.	0.6	0