

# Robert W Field

## List of Publications by Year in descending order

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64  
papers

2,649  
citations

279487

23  
h-index

182168

51  
g-index

67  
all docs

67  
docs citations

67  
times ranked

2403  
citing authors

#	ARTICLE	IF	CITATIONS
1	Pervaporation-based hybrid process: a review of process design, applications and economics. <i>Journal of Membrane Science</i> , 1999, 153, 183-210.	4.1	450
2	Critical, sustainable and threshold fluxes for membrane filtration with water industry applications. <i>Advances in Colloid and Interface Science</i> , 2011, 164, 38-44.	7.0	281
3	Energy efficiency evaluation and economic analyses of direct contact membrane distillation system using Aspen Plus. <i>Desalination</i> , 2011, 283, 237-244.	4.0	125
4	Microfiltration of algae ( <i>Chlorella sorokiniana</i> ): Critical flux, fouling and transmission. <i>Journal of Membrane Science</i> , 2012, 387-388, 83-92.	4.1	116
5	Fouling mechanisms in constant flux crossflow ultrafiltration. <i>Journal of Membrane Science</i> , 2019, 574, 65-75.	4.1	109
6	Mass transfer performance for hollow fibre modules with shell-side axial feed flow: using an engineering approach to develop a framework. <i>Journal of Membrane Science</i> , 2001, 193, 195-208.	4.1	106
7	Limiting flux in membrane separations: A model based on the viscosity dependency of the mass transfer coefficient. <i>Chemical Engineering Science</i> , 1992, 47, 579-586.	1.9	99
8	Exploring the differences between forward osmosis and reverse osmosis fouling. <i>Journal of Membrane Science</i> , 2018, 565, 241-253.	4.1	96
9	Modeling double-skinned FO membranes. <i>Desalination</i> , 2011, 283, 178-186.	4.0	85
10	Polyvinylpyrrolidone modified graphene oxide as a modifier for thin film composite forward osmosis membranes. <i>Journal of Membrane Science</i> , 2017, 540, 251-260.	4.1	84
11	Effect of bubble size and frequency on mass transfer in flat sheet MBR. <i>Journal of Membrane Science</i> , 2009, 332, 30-37.	4.1	74
12	Membrane bioreactor: TMP rise and characterization of bio-cake structure using CLSM-image analysis. <i>Journal of Membrane Science</i> , 2012, 419-420, 33-41.	4.1	67
13	Direct contact membrane distillation: An experimental and analytical investigation of the effect of membrane thickness upon transmembrane flux. <i>Journal of Membrane Science</i> , 2014, 470, 257-265.	4.1	67
14	Modelling of permeability loss in membrane filtration: Re-examination of fundamental fouling equations and their link to critical flux. <i>Desalination</i> , 2011, 283, 68-74.	4.0	62
15	CFD modeling of hydrodynamic characteristics of slug bubble flow in a flat sheet membrane bioreactor. <i>Journal of Membrane Science</i> , 2013, 445, 15-24.	4.1	62
16	Critical flux-based membrane fouling control of forward osmosis: Behavior, sustainability, and reversibility. <i>Journal of Membrane Science</i> , 2019, 570-571, 380-393.	4.1	57
17	Mass transfer limitations in forward osmosis: Are some potential applications overhyped?. <i>Desalination</i> , 2013, 318, 118-124.	4.0	56
18	In Situ Three-Dimensional Characterization of Membrane Fouling by Protein Suspensions Using Multiphoton Microscopy. <i>Langmuir</i> , 2006, 22, 6266-6272.	1.6	49

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19	In situ 3D characterization of membrane fouling by yeast suspensions using two-photon femtosecond near infrared non-linear optical imaging. <i>Journal of Membrane Science</i> , 2006, 280, 124-133.	4.1	45
20	Some observations on the chemical cleaning of fouled membranes. <i>Desalination</i> , 2008, 227, 132-138.	4.0	36
21	Effect of the bubbling regimes on the performance and energy cost of flat sheet MBRs. <i>Desalination</i> , 2011, 283, 221-226.	4.0	31
22	Multiscale Modeling of Membrane Distillation: Some Theoretical Considerations. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 8822-8828.	1.8	29
23	Insight into organic fouling behavior in polyamide thin-film composite forward osmosis membrane: Critical flux and its impact on the economics of water reclamation. <i>Journal of Membrane Science</i> , 2020, 606, 118118.	4.1	26
24	On boundary layers and the attenuation of driving forces in forward osmosis and other membrane processes. <i>Desalination</i> , 2018, 429, 167-174.	4.0	24
25	Novel approach for sizing forward osmosis membrane systems. <i>Journal of Membrane Science</i> , 2017, 541, 321-328.	4.1	23
26	Optimization of aeration variables in a commercial large-scale flat-sheet MBR operated with slug bubbling. <i>Journal of Membrane Science</i> , 2018, 567, 181-190.	4.1	22
27	Novel aeration of a large-scale flat sheet MBR: A CFD and experimental investigation. <i>AIChE Journal</i> , 2018, 64, 2721-2736.	1.8	20
28	Hybrid forward osmosis-membrane distillation system: Demonstration of technical feasibility. <i>Journal of Water Process Engineering</i> , 2020, 33, 101042.	2.6	20
29	A thermodynamic platform for evaluating the energy efficiency of combined power generation and desalination plants. <i>Npj Clean Water</i> , 2021, 4, .	3.1	20
30	Limitations of resistance-in-series model for fouling analysis in membrane bioreactors: A cautionary note. <i>Desalination and Water Treatment</i> , 2009, 8, 31-36.	1.0	19
31	Biogenic silver nanocomposite TFC nanofiltration membrane with antifouling properties. <i>Desalination and Water Treatment</i> , 2016, 57, 10560-10571.	1.0	19
32	Slug bubbling in flat sheet MBRs: Hydrodynamic optimization of membrane design variables through computational and experimental studies. <i>Journal of Membrane Science</i> , 2018, 548, 165-175.	4.1	18
33	Extended performance study of forward osmosis during wastewater reclamation: Quantification of fouling-based concentration polarization effects on the flux decline. <i>Journal of Membrane Science</i> , 2021, 618, 118755.	4.1	16
34	Theory of oil fouling for microfiltration and ultrafiltration membranes in produced water treatment. <i>Journal of Colloid and Interface Science</i> , 2022, 621, 431-439.	5.0	16
35	Novel method for the design and assessment of direct contact membrane distillation modules. <i>Journal of Membrane Science</i> , 2016, 513, 260-269.	4.1	15
36	On maintaining consistency between the film model and the profile of the concentration polarisation layer. <i>Journal of Membrane Science</i> , 2006, 279, 434-438.	4.1	14

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37	Membrane fouling by cell-protein mixtures: In situ characterisation using multi-photon microscopy. <i>Biotechnology and Bioengineering</i> , 2007, 96, 1083-1091.	1.7	14
38	Comparative performance of various plasma polysiloxane films for the pervaporative recovery of organics from aqueous streams. <i>Journal of Membrane Science</i> , 2003, 211, 113-126.	4.1	13
39	The effect of a concentration-dependent viscosity on particle transport in a channel flow with porous walls. <i>AIChE Journal</i> , 2014, 60, 1891-1904.	1.8	13
40	Analysis of the influence of module construction upon forward osmosis performance. <i>Desalination</i> , 2018, 431, 151-156.	4.0	12
41	A Maxwell-Stefan-Gouy-Debye model of the concentration profile of a charged solute in the polarisation layer. <i>Desalination</i> , 2006, 192, 356-363.	4.0	11
42	Permeate Flux in Ultrafiltration Processes—Understandings and Misunderstandings. <i>Membranes</i> , 2022, 12, 187.	1.4	11
43	Separation of proteins using sandwich membranes. <i>Desalination</i> , 2009, 245, 597-605.	4.0	10
44	Use of threshold flux concept to aid selection of sustainable operating flux: A multi-scale study from laboratory to full scale. <i>Separation and Purification Technology</i> , 2014, 123, 69-78.	3.9	10
45	Pressure driven inside feed (PDI) hollow fibre filtration: Optimizing the geometry and operating parameters. <i>Journal of Membrane Science</i> , 2017, 537, 323-336.	4.1	8
46	On the understanding and feasibility of Breakthrough-Osmosis. <i>Scientific Reports</i> , 2019, 9, 16464.	1.6	8
47	Aeration pipe design for free bubbling hydrodynamic optimization of flat sheet MBRs. <i>Journal of Membrane Science</i> , 2022, 646, 120222.	4.1	8
48	Theoretical analysis of the viscosity correction factor for heat transfer in pipe flow. <i>Chemical Engineering Science</i> , 2018, 187, 27-32.	1.9	7
49	Innovation and optimization of aeration in free bubbling flat sheet MBRs. <i>Journal of Membrane Science</i> , 2021, 635, 119522.	4.1	7
50	A Maxwell-Stefan-Derjaguin-Grahame model of the concentration profile of a charged solute in the polarisation layer. <i>Desalination</i> , 2006, 200, 175-177.	4.0	6
51	Optimizing the operation of a direct-flow filtration device. <i>Journal of Engineering Mathematics</i> , 2017, 104, 195-211.	0.6	6
52	Transmission of and fouling by long chain molecules during crossflow microfiltration of algal suspensions: influence of shear. <i>Desalination and Water Treatment</i> , 2011, 35, 138-149.	1.0	5
53	Hydrophobic Pervaporation. <i>Annals of the New York Academy of Sciences</i> , 2003, 984, 401-410.	1.8	4
54	Novel economical three-stage slug bubbling process in a large-scale flat-sheet membrane bioreactor of double deck configuration. <i>AIChE Journal</i> , 2020, 66, e16501.	1.8	4

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55	Reverse osmosis and forward osmosis fouling: a comparison. Discover Chemical Engineering, 2021, 1, 1.	1.1	4
56	On Operating a Nanofiltration Membrane for Olive Mill Wastewater Purification at Sub- and Super-Boundary Conditions. Membranes, 2017, 7, 36.	1.4	3
57	Combining experimental and theoretical insights for reduction of CO2 to multi-carbon compounds. Discover Chemical Engineering, 2022, 2, 1.	1.1	3
58	Diafiltration under condition of quasi-constant membrane surface concentration. Journal of Membrane Science, 2011, 383, 301-302.	4.1	2
59	Influence of viscosity variations upon heat transfer: further observations on cooling and condensation. Chemical Engineering Science, 1992, 47, 4465-4467.	1.9	1
60	In Situ Characterization of Membrane Fouling and Cleaning Using a Multiphoton Microscope. , 0, , 151-174.		1
61	A standardized well-to-wheel model for the assessment of bioethanol and hydrogen from cellulosic biomass. Energy Policy, 2012, 48, 487-497.	4.2	1
62	Effect of low temperature on the performance of a gravity flow CANON-like pilot plant MBR treating surface water. Desalination and Water Treatment, 0, , 1-11.	1.0	1
63	2.1 Fundamentals of Crossflow Microfiltration. , 2017, , 1-14.		0
64	Pressure Retarded Osmosis: Modelling, Mirages and Prospects. Materials and Energy, 2021, , 169-192.	2.5	0