

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
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67
all docs

67
docs citations

67
times ranked

2403
citing authors

#	ARTICLE	IF	CITATIONS
1	Aeration pipe design for free bubbling hydrodynamic optimization of flat sheet MBRs. Journal of Membrane Science, 2022, 646, 120222.	4.1	8
2	Permeate Flux in Ultrafiltration Processes—Understandings and Misunderstandings. Membranes, 2022, 12, 187.	1.4	11
3	Combining experimental and theoretical insights for reduction of CO ₂ to multi-carbon compounds. Discover Chemical Engineering, 2022, 2, 1.	1.1	3
4	Theory of oil fouling for microfiltration and ultrafiltration membranes in produced water treatment. Journal of Colloid and Interface Science, 2022, 621, 431-439.	5.0	16
5	Extended performance study of forward osmosis during wastewater reclamation: Quantification of fouling-based concentration polarization effects on the flux decline. Journal of Membrane Science, 2021, 618, 118755.	4.1	16
6	A thermodynamic platform for evaluating the energy efficiency of combined power generation and desalination plants. Npj Clean Water, 2021, 4, .	3.1	20
7	Pressure Retarded Osmosis: Modelling, Mirages and Prospects. Materials and Energy, 2021, , 169-192.	2.5	0
8	Innovation and optimization of aeration in free bubbling flat sheet MBRs. Journal of Membrane Science, 2021, 635, 119522.	4.1	7
9	Reverse osmosis and forward osmosis fouling: a comparison. Discover Chemical Engineering, 2021, 1, 1.	1.1	4
10	Hybrid forward osmosis-membrane distillation system: Demonstration of technical feasibility. Journal of Water Process Engineering, 2020, 33, 101042.	2.6	20
11	Novel economical three-stage slug bubbling process in a large-scale flat-sheet membrane bioreactor of double deck configuration. AIChE Journal, 2020, 66, e16501.	1.8	4
12	Insight into organic fouling behavior in polyamide thin-film composite forward osmosis membrane: Critical flux and its impact on the economics of water reclamation. Journal of Membrane Science, 2020, 606, 118118.	4.1	26
13	On the understanding and feasibility of “Breakthrough” Osmosis. Scientific Reports, 2019, 9, 16464.	1.6	8
14	Critical flux-based membrane fouling control of forward osmosis: Behavior, sustainability, and reversibility. Journal of Membrane Science, 2019, 570-571, 380-393.	4.1	57
15	Fouling mechanisms in constant flux crossflow ultrafiltration. Journal of Membrane Science, 2019, 574, 65-75.	4.1	109
16	On boundary layers and the attenuation of driving forces in forward osmosis and other membrane processes. Desalination, 2018, 429, 167-174.	4.0	24
17	Theoretical analysis of the viscosity correction factor for heat transfer in pipe flow. Chemical Engineering Science, 2018, 187, 27-32.	1.9	7
18	Novel aeration of a large-scale flat sheet MBR: A CFD and experimental investigation. AIChE Journal, 2018, 64, 2721-2736.	1.8	20

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19	Analysis of the influence of module construction upon forward osmosis performance. Desalination, 2018, 431, 151-156.	4.0	12
20	Slug bubbling in flat sheet MBRs: Hydrodynamic optimization of membrane design variables through computational and experimental studies. Journal of Membrane Science, 2018, 548, 165-175.	4.1	18
21	Optimization of aeration variables in a commercial large-scale flat-sheet MBR operated with slug bubbling. Journal of Membrane Science, 2018, 567, 181-190.	4.1	22
22	Exploring the differences between forward osmosis and reverse osmosis fouling. Journal of Membrane Science, 2018, 565, 241-253.	4.1	96
23	Pressure driven inside feed (PDI) hollow fibre filtration: Optimizing the geometry and operating parameters. Journal of Membrane Science, 2017, 537, 323-336.	4.1	8
24	Optimizing the operation of a direct-flow filtration device. Journal of Engineering Mathematics, 2017, 104, 195-211.	0.6	6
25	Novel approach for sizing forward osmosis membrane systems. Journal of Membrane Science, 2017, 541, 321-328.	4.1	23
26	Polyvinylpyrrolidone modified graphene oxide as a modifier for thin film composite forward osmosis membranes. Journal of Membrane Science, 2017, 540, 251-260.	4.1	84
27	2.1 Fundamentals of Crossflow Microfiltration. , 2017, , 1-14.		0
28	On Operating a Nanofiltration Membrane for Olive Mill Wastewater Purification at Sub- and Super-Boundary Conditions. Membranes, 2017, 7, 36.	1.4	3
29	Novel method for the design and assessment of direct contact membrane distillation modules. Journal of Membrane Science, 2016, 513, 260-269.	4.1	15
30	Biogenic silver nanocomposite TFC nanofiltration membrane with antifouling properties. Desalination and Water Treatment, 2016, 57, 10560-10571.	1.0	19
31	The effect of a concentration-dependent viscosity on particle transport in a channel flow with porous walls. AIChE Journal, 2014, 60, 1891-1904.	1.8	13
32	Direct contact membrane distillation: An experimental and analytical investigation of the effect of membrane thickness upon transmembrane flux. Journal of Membrane Science, 2014, 470, 257-265.	4.1	67
33	Use of threshold flux concept to aid selection of sustainable operating flux: A multi-scale study from laboratory to full scale. Separation and Purification Technology, 2014, 123, 69-78.	3.9	10
34	CFD modeling of hydrodynamic characteristics of slug bubble flow in a flat sheet membrane bioreactor. Journal of Membrane Science, 2013, 445, 15-24.	4.1	62
35	Multiscale Modeling of Membrane Distillation: Some Theoretical Considerations. Industrial & Engineering Chemistry Research, 2013, 52, 8822-8828.	1.8	29
36	Mass transfer limitations in forward osmosis: Are some potential applications overhyped?. Desalination, 2013, 318, 118-124.	4.0	56

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37	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
38	A standardized well-to-wheel model for the assessment of bioethanol and hydrogen from cellulosic biomass. <i>Energy Policy</i> , 2012, 48, 487-497.	4.2	1
39	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
40	Diafiltration under condition of quasi-constant membrane surface concentration. <i>Journal of Membrane Science</i> , 2011, 383, 301-302.	4.1	2
41	Modeling double-skinned FO membranes. <i>Desalination</i> , 2011, 283, 178-186.	4.0	85
42	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
43	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
44	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
45	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
46	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
47	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
48	Separation of proteins using sandwich membranes. <i>Desalination</i> , 2009, 245, 597-605.	4.0	10
49	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
50	Some observations on the chemical cleaning of fouled membranes. <i>Desalination</i> , 2008, 227, 132-138.	4.0	36
51	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
52	In Situ Three-Dimensional Characterization of Membrane Fouling by Protein Suspensions Using Multiphoton Microscopy. <i>Langmuir</i> , 2006, 22, 6266-6272.	1.6	49
53	A Maxwellâ€“Stefanâ€“Gouyâ€“Debye model of the concentration profile of a charged solute in the polarisation layer. <i>Desalination</i> , 2006, 192, 356-363.	4.0	11
54	A Maxwellâ€“Stefanâ€“Derjaguinâ€“Grahame model of the concentration profile of a charged solute in the polarisation layer. <i>Desalination</i> , 2006, 200, 175-177.	4.0	6

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55	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
56	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
57	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
58	Hydrophobic Pervaporation. <i>Annals of the New York Academy of Sciences</i> , 2003, 984, 401-410.	1.8	4
59	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
60	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
61	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
62	Influence of viscosity variations upon heat transfer: further observations on cooling and condensation. <i>Chemical Engineering Science</i> , 1992, 47, 4465-4467.	1.9	1
63	In Situ Characterization of Membrane Fouling and Cleaning Using a Multiphoton Microscope. , 0, , 151-174.		1
64	Effect of low temperature on the performance of a gravity flow CANON-like pilot plant MBR treating surface water. <i>Desalination and Water Treatment</i> , 0, , 1-11.	1.0	1