

Jeonghwan Kim

List of Publications by Year in descending order

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89

papers

6,759

citations

117625

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60623

81

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91

all docs

91

docs citations

91

times ranked

6038

citing authors

#	ARTICLE	IF	CITATIONS
1	Domestic Wastewater Treatment as a Net Energy Producer—Can This be Achieved?. Environmental Science & Technology, 2011, 45, 7100-7106.	10.0	1,406
2	The use of nanoparticles in polymeric and ceramic membrane structures: Review of manufacturing procedures and performance improvement for water treatment. Environmental Pollution, 2010, 158, 2335-2349.	7.5	706
3	Anaerobic Fluidized Bed Membrane Bioreactor for Wastewater Treatment. Environmental Science & Technology, 2011, 45, 576-581.	10.0	414
4	A new outlook on membrane enhancement with nanoparticles: The alternative of ZnO. Journal of Membrane Science, 2012, 389, 155-161.	8.2	355
5	Membrane bioreactors for wastewater treatment: A review of mechanical cleaning by scouring agents to control membrane fouling. Chemical Engineering Journal, 2017, 307, 897-913.	12.7	254
6	Pilot-scale temperate-climate treatment of domestic wastewater with a staged anaerobic fluidized membrane bioreactor (SAF-MBR). Bioresource Technology, 2014, 159, 95-103.	9.6	221
7	Photocatalytic systems as an advanced environmental remediation: Recent developments, limitations and new avenues for applications. Journal of Environmental Chemical Engineering, 2016, 4, 4143-4164.	6.7	211
8	Effect of nanoparticle aggregation at low concentrations of TiO ₂ on the hydrophilicity, morphology, and fouling resistance of PES—TiO ₂ membranes. Journal of Colloid and Interface Science, 2011, 363, 540-550.	9.4	185
9	Anaerobic membrane bioreactors for wastewater treatment: Novel configurations, fouling control and energy considerations. Bioresource Technology, 2019, 283, 358-372.	9.6	183
10	Anaerobic treatment of municipal wastewater with a staged anaerobic fluidized membrane bioreactor (SAF-MBR) system. Bioresource Technology, 2012, 120, 133-139.	9.6	157
11	Doping of polyethersulfone nanofiltration membranes: antifouling effect observed at ultralow concentrations of TiO ₂ nanoparticles. Journal of Materials Chemistry, 2011, 21, 10311.	6.7	139
12	Recent developments in biofouling control in membrane bioreactors for domestic wastewater treatment. Separation and Purification Technology, 2018, 206, 297-315.	7.9	134
13	The effect of fluidized media characteristics on membrane fouling and energy consumption in anaerobic fluidized membrane bioreactors. Separation and Purification Technology, 2014, 132, 10-15.	7.9	110
14	Low energy single-staged anaerobic fluidized bed ceramic membrane bioreactor (AFCMBR) for wastewater treatment. Bioresource Technology, 2017, 240, 33-41.	9.6	107
15	A review on anaerobic membrane bioreactors (AnMBRs) focused on modelling and control aspects. Bioresource Technology, 2018, 270, 612-626.	9.6	106
16	Anaerobic membrane bioreactors for biohydrogen production: Recent developments, challenges and perspectives. Bioresource Technology, 2018, 269, 452-464.	9.6	100
17	Membrane separation processes for dehydration of bioethanol from fermentation broths: Recent developments, challenges, and prospects. Renewable and Sustainable Energy Reviews, 2019, 105, 427-443.	16.4	94
18	Anaerobic treatment of low-strength wastewater: A comparison between single and staged anaerobic fluidized bed membrane bioreactors. Bioresource Technology, 2014, 165, 75-80.	9.6	87

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19	Novel staged anaerobic fluidized bed ceramic membrane bioreactor: Energy reduction, fouling control and microbial characterization. <i>Journal of Membrane Science</i> , 2018, 553, 200-208.	8.2	84
20	Fabrication of polymeric membranes for membrane distillation process and application for wastewater treatment: Critical review. <i>Chemical Engineering Research and Design</i> , 2020, 141, 190-201.	5.6	79
21	Interactions of Aqueous NOM with Nanoscale TiO ₂ : Implications for Ceramic Membrane Filtration-Ozonation Hybrid Process. <i>Environmental Science & Technology</i> , 2009, 43, 5488-5494.	10.0	67
22	Fouling models for low-pressure membrane systems. <i>Separation and Purification Technology</i> , 2009, 68, 293-304.	7.9	65
23	Integrity of hollow-fiber membranes in a pilot-scale anaerobic fluidized membrane bioreactor (AFMBR) after two-years of operation. <i>Separation and Purification Technology</i> , 2016, 162, 101-105.	7.9	60
24	A modelling approach to study the fouling of an anaerobic membrane bioreactor for industrial wastewater treatment. <i>Bioresource Technology</i> , 2017, 245, 207-215.	9.6	51
25	Submerged low-cost pyrophyllite ceramic membrane filtration combined with GAC as fluidized particles for industrial wastewater treatment. <i>Chemosphere</i> , 2018, 206, 784-792.	8.2	51
26	Membrane fouling by sodium alginate in high salinity conditions to simulate biofouling during seawater desalination. <i>Bioresource Technology</i> , 2017, 240, 106-114.	9.6	47
27	Modifications of polyethersulfone membrane by doping sulfated-TiO ₂ nanoparticles for improving anti-fouling property in wastewater treatment. <i>RSC Advances</i> , 2017, 7, 33822-33828.	3.6	46
28	Particle-sparged anaerobic membrane bioreactor with fluidized polyethylene terephthalate beads for domestic wastewater treatment: Modelling approach and fouling control. <i>Bioresource Technology</i> , 2018, 258, 263-269.	9.6	46
29	Analysis of membrane fouling with porous membrane filters by microbial suspensions for autotrophic nitrogen transformations. <i>Separation and Purification Technology</i> , 2015, 146, 284-293.	7.9	44
30	Humic acid fouling in a submerged photocatalytic membrane reactor with binary TiO ₂ –ZrO ₂ particles. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 21, 779-786.	5.8	44
31	Macroscopic approach to develop fouling model under GAC fluidization in anaerobic fluidized bed membrane bioreactor. <i>Journal of Industrial and Engineering Chemistry</i> , 2017, 49, 219-229.	5.8	44
32	ZnS nanoparticles as new additive for polyethersulfone membrane in humic acid filtration. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 79, 71-78.	5.8	39
33	Autopsy of high-pressure membranes to compare effectiveness of MF and UF pretreatment in water reclamation. <i>Water Research</i> , 2008, 42, 697-706.	11.3	37
34	Defining critical flux in submerged membranes: Influence of length-distributed flux. <i>Journal of Membrane Science</i> , 2006, 280, 752-761.	8.2	36
35	Mesophilic anaerobic digestion of corn thin stillage: a technical and energetic assessment of the corn-ethanol industry integrated with anaerobic digestion. <i>Journal of Chemical Technology and Biotechnology</i> , 2011, 86, 1514-1520.	3.2	36
36	Trends and progress in AnMBR for domestic wastewater treatment and their impacts on process efficiency and membrane fouling. <i>Environmental Technology and Innovation</i> , 2021, 21, 101204.	6.1	35

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37	Well-organized, mesoporous nanocrystalline TiO ₂ on alumina membranes with hierarchical architecture: Antifouling and photocatalytic activities. <i>Catalysis Today</i> , 2017, 282, 2-12.	4.4	34
38	Anaerobic Membrane Bioreactors for Nonpotable Water Reuse and Energy Recovery. <i>Journal of Environmental Engineering, ASCE</i> , 2020, 146, .	1.4	34
39	Embedding TiO ₂ nanoparticles versus surface coating by layer-by-layer deposition on nanoporous polymeric films. <i>Microporous and Mesoporous Materials</i> , 2013, 173, 121-128.	4.4	33
40	Nanostructured Ceramic Photocatalytic Membrane Modified with a Polymer Template for Textile Wastewater Treatment. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 1284.	2.5	33
41	Removals of micropollutants in staged anaerobic fluidized bed membrane bioreactor for low-strength wastewater treatment. <i>Chemical Engineering Research and Design</i> , 2019, 127, 162-170.	5.6	32
42	A two-fiber, bench-scale test of ultrafiltration (UF) for investigation of fouling rate and characteristics. <i>Journal of Membrane Science</i> , 2006, 271, 196-204.	8.2	30
43	Metatranscriptomic evidence for classical and RuBisCO-mediated CO ₂ reduction to methane facilitated by direct interspecies electron transfer in a methanogenic system. <i>Scientific Reports</i> , 2019, 9, 4116.	3.3	30
44	Biologically induced mineralization in anaerobic membrane bioreactors: Assessment of membrane scaling mechanisms in a long-term pilot study. <i>Journal of Membrane Science</i> , 2017, 543, 342-350.	8.2	29
45	Investigating membrane fouling associated with GAC fluidization on membrane with effluent from anaerobic fluidized bed bioreactor in domestic wastewater treatment. <i>Environmental Science and Pollution Research</i> , 2019, 26, 1170-1180.	5.3	29
46	Removal of organic micropollutants in anaerobic membrane bioreactors in wastewater treatment: critical review. <i>Environmental Science: Water Research and Technology</i> , 2020, 6, 1230-1243.	2.4	29
47	Membrane distillation bioreactor (MDBR) for wastewater treatment, water reuse, and resource recovery: A review. <i>Journal of Water Process Engineering</i> , 2022, 47, 102687.	5.6	29
48	Structural characteristics of hazardous organic dyes and relationship between membrane fouling and organic removal efficiency in fluidized ceramic membrane reactor. <i>Journal of Cleaner Production</i> , 2019, 232, 608-616.	9.3	28
49	Preparation and immobilization of zinc sulfide (ZnS) nanoparticles on polyvinylidene fluoride pellets for photocatalytic degradation of methylene blue in wastewater. <i>Applied Surface Science</i> , 2019, 473, 425-432.	6.1	28
50	Membrane autopsy to investigate CaCO ₃ scale formation in pilot-scale, submerged membrane bioreactor treating calcium-rich wastewater. <i>Journal of Chemical Technology and Biotechnology</i> , 2009, 84, 1397-1404.	3.2	26
51	Preparation and characterization of polyethersulfone mixed matrix membranes embedded with Ti- or Zr-incorporated SBA-15 materials. <i>Journal of Industrial and Engineering Chemistry</i> , 2017, 45, 257-265.	5.8	25
52	Modelling approach to better control biofouling in fluidized bed membrane bioreactor for wastewater treatment. <i>Chemosphere</i> , 2018, 191, 136-144.	8.2	25
53	Membrane distillation as post-treatment for anaerobic fluidized bed membrane bioreactor for organic and nitrogen removal. <i>Chemosphere</i> , 2019, 234, 756-762.	8.2	25
54	Use of polymeric scouring agent as fluidized media in anaerobic fluidized bed membrane bioreactor for wastewater treatment: System performance and microbial community. <i>Journal of Membrane Science</i> , 2020, 606, 118121.	8.2	25

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55	Nanofiltration membranes enhanced with TiO ₂ nanoparticles: a comprehensive study. Desalination and Water Treatment, 2011, 34, 179-183.	1.0	21
56	Anaerobic fluidized membrane bioreactor polishing of baffled reactor effluent during treatment of dilute wastewater. Journal of Chemical Technology and Biotechnology, 2015, 90, 391-397.	3.2	21
57	Effect of polymer template on structure and membrane fouling of TiO ₂ /Al ₂ O ₃ composite membranes for wastewater treatment. Journal of Industrial and Engineering Chemistry, 2018, 57, 55-63.	5.8	20
58	Partially coated TiO ₂ on Al ₂ O ₃ membrane for high water flux and photodegradation by novel filtration strategy in photocatalytic membrane reactors. Chemical Engineering Research and Design, 2020, 163, 138-148.	5.6	20
59	Analysis of local fouling in a pilot-scale submerged hollow-fiber membrane system for drinking water treatment by membrane autopsy. Separation and Purification Technology, 2012, 95, 227-234.	7.9	19
60	Membrane scouring to control fouling under fluidization of non-adsorbing media for wastewater treatment. Environmental Science and Pollution Research, 2019, 26, 1061-1071.	5.3	19
61	Development and application of a procedure for evaluating the long-term integrity of membranes for the anaerobic fluidized membrane bioreactor (AFMBR). Water Science and Technology, 2016, 74, 457-465.	2.5	17
62	Hybrid forward osmosis/membrane distillation integrated with anaerobic fluidized bed bioreactor for advanced wastewater treatment. Journal of Hazardous Materials, 2021, 404, 124160.	12.4	16
63	Long-term performance evaluation of granular activated carbon fluidization and biogas sparging in anaerobic fluidized bed membrane bioreactor: Membrane fouling and micropollutant removal. Chemical Engineering Research and Design, 2021, 154, 425-432.	5.6	14
64	Hybrid ceramic membrane reactor combined with fluidized adsorbents and scouring agents for hazardous metal-plating wastewater treatment. Journal of Hazardous Materials, 2020, 388, 121777.	12.4	13
65	Alginate to simulate biofouling in submerged fluidized ceramic membrane reactor: Effect of solution pH and ionic strength. Bioresource Technology, 2020, 302, 122813.	9.6	13
66	Effects of FeCl ₃ addition on the operation of a staged anaerobic fluidized membrane bioreactor (SAF-MBR). Water Science and Technology, 2016, 74, 130-137.	2.5	12
67	Improvement of Membrane Distillation Using PVDF Membrane Incorporated with TiO ₂ Modified by Silane and Optimization of Fabricating Conditions. Membranes, 2021, 11, 95.	3.0	12
68	Effect of interactions between ammonium and organic fouling simulated by sodium alginate on performance of direct contact membrane distillation. Separation and Purification Technology, 2021, 278, 119551.	7.9	11
69	Response surface methodology to investigate the effects of operational parameters on membrane fouling and organic matter rejection in hard-shell encased hollow-fiber membrane. Chemosphere, 2022, 287, 132132.	8.2	11
70	Electrochemical denitrification of metal-finishing wastewater: Influence of operational parameters. Korean Journal of Chemical Engineering, 2012, 29, 483-488.	2.7	10
71	Diethylene Glycol-Assisted Organized TiO ₂ Nanostructures for Photocatalytic Wastewater Treatment Ceramic Membranes. Water (Switzerland), 2019, 11, 750.	2.7	10
72	Particle fouling in submerged microfiltration membranes: effects of hollow-fiber length and aeration rate. Journal of Water Supply: Research and Technology - AQUA, 2006, 55, 535-547.	1.4	9

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73	Fouling behavior and system performance in membrane bioreactor introduced by granular media as a mechanical cleaning effect on membranes. <i>Desalination and Water Treatment</i> , 2016, 57, 9018-9026.	1.0	8
74	Permeate Flux and Rejection Behavior in Submerged Direct Contact Membrane Distillation Process Treating a Low-Strength Synthetic Wastewater. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 677.	2.5	8
75	Feasibility of the highly-permselective forward osmosis membrane process for the post-treatment of the anaerobic fluidized bed bioreactor effluent. <i>Desalination</i> , 2020, 485, 114451.	8.2	8
76	Combined Effect of Activated Carbon Particles and Non-Adsorptive Spherical Beads as Fluidized Media on Fouling, Organic Removal and Microbial Communities in Anaerobic Membrane Bioreactor. <i>Membranes</i> , 2021, 11, 365.	3.0	8
77	Dynamic anaerobic membrane bioreactor coupled with sulfate reduction (SrDMBR) for saline wastewater treatment. <i>Bioresource Technology</i> , 2022, 346, 126447.	9.6	8
78	Modelling tool to assess membrane regeneration by periodical hydraulic cleaning and fouling control in pressurized membrane process for surface water treatment. <i>Environmental Earth Sciences</i> , 2019, 78, 1.	2.7	7
79	Organic Fouling Impact in a Direct Contact Membrane Distillation System Treating Wastewater: Experimental Observations and Modeling Approach. <i>Membranes</i> , 2021, 11, 493.	3.0	7
80	In-situ TiO ₂ Formation and Performance on Ceramic Membranes in Photocatalytic Membrane Reactor. <i>Membrane Journal</i> , 2017, 27, 328-335.	0.4	6
81	Direct observations of membrane scale in membrane bioreactor for wastewater treatment application. <i>Water Science and Technology</i> , 2010, 61, 2267-2272.	2.5	5
82	Anaerobic Fluidized Bed Membrane Bioreactors for the Treatment of Domestic Wastewater. , 2015, , 211-242.		5
83	Surface modification of polymeric media coated with conductive polyaniline to enhance methane production for anaerobic low-strength wastewater treatment. <i>Applied Surface Science</i> , 2022, 577, 151859.	6.1	4
84	Polyaniline-coated conductive media promotes direct interspecies electrons transfer (DIET) and kinetics enhancement of low-strength wastewater treatment in anaerobic fluidized bed membrane bioreactor (AFMBR). <i>Chemical Engineering Journal</i> , 2022, 446, 136711.	12.7	4
85	Combined effect of periodic backwashing and forward flushing on fouling mitigation in a pressurized UF membrane process for high turbid surface water treatment. , 0, 101, 24-30.		3
86	Rejections and membrane fouling of submerged direct contact hollow-fiber membrane distillation as post-treatment for anaerobic fluidized bed bioreactor treating domestic sewage. <i>Chemosphere</i> , 2022, 296, 133964.	8.2	3
87	Biochar as a catalyst in the production of syngas and biodiesel from peanut waste. <i>International Journal of Energy Research</i> , 2022, 46, 19287-19299.	4.5	1
88	Water sustainability: a spectrum of innovative technology and remediation methods. <i>Environmental Earth Sciences</i> , 2018, 77, 1.	2.7	0
89	Alumina Membrane Bioreactor. , 2020, , 115-139.		0