

Jeonghwan Kim

List of Publications by Year in descending order

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89
papers

6,759
citations

117453

34
h-index

60497

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?. <i>Environmental Science & Technology</i> , 2011, 45, 7100-7106.	4.6	1,406
2	The use of nanoparticles in polymeric and ceramic membrane structures: Review of manufacturing procedures and performance improvement for water treatment. <i>Environmental Pollution</i> , 2010, 158, 2335-2349.	3.7	706
3	Anaerobic Fluidized Bed Membrane Bioreactor for Wastewater Treatment. <i>Environmental Science & Technology</i> , 2011, 45, 576-581.	4.6	414
4	A new outlook on membrane enhancement with nanoparticles: The alternative of ZnO. <i>Journal of Membrane Science</i> , 2012, 389, 155-161.	4.1	355
5	Membrane bioreactors for wastewater treatment: A review of mechanical cleaning by scouring agents to control membrane fouling. <i>Chemical Engineering Journal</i> , 2017, 307, 897-913.	6.6	254
6	Pilot-scale temperate-climate treatment of domestic wastewater with a staged anaerobic fluidized membrane bioreactor (SAF-MBR). <i>Bioresource Technology</i> , 2014, 159, 95-103.	4.8	221
7	Photocatalytic systems as an advanced environmental remediation: Recent developments, limitations and new avenues for applications. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 4143-4164.	3.3	211
8	Effect of nanoparticle aggregation at low concentrations of TiO ₂ on the hydrophilicity, morphology, and fouling resistance of PES/TiO ₂ membranes. <i>Journal of Colloid and Interface Science</i> , 2011, 363, 540-550.	5.0	185
9	Anaerobic membrane bioreactors for wastewater treatment: Novel configurations, fouling control and energy considerations. <i>Bioresource Technology</i> , 2019, 283, 358-372.	4.8	183
10	Anaerobic treatment of municipal wastewater with a staged anaerobic fluidized membrane bioreactor (SAF-MBR) system. <i>Bioresource Technology</i> , 2012, 120, 133-139.	4.8	157
11	Doping of polyethersulfone nanofiltration membranes: antifouling effect observed at ultralow concentrations of TiO ₂ nanoparticles. <i>Journal of Materials Chemistry</i> , 2011, 21, 10311.	6.7	139
12	Recent developments in biofouling control in membrane bioreactors for domestic wastewater treatment. <i>Separation and Purification Technology</i> , 2018, 206, 297-315.	3.9	134
13	The effect of fluidized media characteristics on membrane fouling and energy consumption in anaerobic fluidized membrane bioreactors. <i>Separation and Purification Technology</i> , 2014, 132, 10-15.	3.9	110
14	Low energy single-staged anaerobic fluidized bed ceramic membrane bioreactor (AFCMBR) for wastewater treatment. <i>Bioresource Technology</i> , 2017, 240, 33-41.	4.8	107
15	A review on anaerobic membrane bioreactors (AnMBRs) focused on modelling and control aspects. <i>Bioresource Technology</i> , 2018, 270, 612-626.	4.8	106
16	Anaerobic membrane bioreactors for biohydrogen production: Recent developments, challenges and perspectives. <i>Bioresource Technology</i> , 2018, 269, 452-464.	4.8	100
17	Membrane separation processes for dehydration of bioethanol from fermentation broths: Recent developments, challenges, and prospects. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 105, 427-443.	8.2	94
18	Anaerobic treatment of low-strength wastewater: A comparison between single and staged anaerobic fluidized bed membrane bioreactors. <i>Bioresource Technology</i> , 2014, 165, 75-80.	4.8	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.	4.1	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.	2.7	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.	4.6	67
22	Fouling models for low-pressure membrane systems. <i>Separation and Purification Technology</i> , 2009, 68, 293-304.	3.9	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.	3.9	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.	4.8	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.	4.2	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.	4.8	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.	1.7	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.	4.8	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.	3.9	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.	2.9	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.	2.9	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.	2.9	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.	5.3	37
34	Defining critical flux in submerged membranes: Influence of length-distributed flux. <i>Journal of Membrane Science</i> , 2006, 280, 752-761.	4.1	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.	1.6	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.	3.0	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.	2.2	34
38	Anaerobic Membrane Bioreactors for Nonpotable Water Reuse and Energy Recovery. <i>Journal of Environmental Engineering, ASCE</i> , 2020, 146, .	0.7	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.	2.2	33
40	Nanostructured Ceramic Photocatalytic Membrane Modified with a Polymer Template for Textile Wastewater Treatment. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 1284.	1.3	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.	2.7	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.	4.1	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.	1.6	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.	4.1	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.	2.7	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.	1.2	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.	2.6	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.	4.6	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.	3.1	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.	1.6	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.	2.9	25
52	Modelling approach to better control biofouling in fluidized bed membrane bioreactor for wastewater treatment. <i>Chemosphere</i> , 2018, 191, 136-144.	4.2	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.	4.2	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.	4.1	25

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55	Nanofiltration membranes enhanced with TiO ₂ nanoparticles: a comprehensive study. <i>Desalination and Water Treatment</i> , 2011, 34, 179-183.	1.0	21
56	Anaerobic fluidized membrane bioreactor polishing of baffled reactor effluent during treatment of dilute wastewater. <i>Journal of Chemical Technology and Biotechnology</i> , 2015, 90, 391-397.	1.6	21
57	Effect of polymer template on structure and membrane fouling of TiO ₂ /Al ₂ O ₃ composite membranes for wastewater treatment. <i>Journal of Industrial and Engineering Chemistry</i> , 2018, 57, 55-63.	2.9	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. <i>Chemical Engineering Research and Design</i> , 2020, 163, 138-148.	2.7	20
59	Analysis of local fouling in a pilot-scale submerged hollow-fiber membrane system for drinking water treatment by membrane autopsy. <i>Separation and Purification Technology</i> , 2012, 95, 227-234.	3.9	19
60	Membrane scouring to control fouling under fluidization of non-adsorbing media for wastewater treatment. <i>Environmental Science and Pollution Research</i> , 2019, 26, 1061-1071.	2.7	19
61	Development and application of a procedure for evaluating the long-term integrity of membranes for the anaerobic fluidized membrane bioreactor (AFMBR). <i>Water Science and Technology</i> , 2016, 74, 457-465.	1.2	17
62	Hybrid forward osmosis/membrane distillation integrated with anaerobic fluidized bed bioreactor for advanced wastewater treatment. <i>Journal of Hazardous Materials</i> , 2021, 404, 124160.	6.5	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. <i>Chemical Engineering Research and Design</i> , 2021, 154, 425-432.	2.7	14
64	Hybrid ceramic membrane reactor combined with fluidized adsorbents and scouring agents for hazardous metal-plating wastewater treatment. <i>Journal of Hazardous Materials</i> , 2020, 388, 121777.	6.5	13
65	Alginate to simulate biofouling in submerged fluidized ceramic membrane reactor: Effect of solution pH and ionic strength. <i>Bioresource Technology</i> , 2020, 302, 122813.	4.8	13
66	Effects of FeCl ₃ addition on the operation of a staged anaerobic fluidized membrane bioreactor (SAF-MBR). <i>Water Science and Technology</i> , 2016, 74, 130-137.	1.2	12
67	Improvement of Membrane Distillation Using PVDF Membrane Incorporated with TiO ₂ Modified by Silane and Optimization of Fabricating Conditions. <i>Membranes</i> , 2021, 11, 95.	1.4	12
68	Effect of interactions between ammonium and organic fouling simulated by sodium alginate on performance of direct contact membrane distillation. <i>Separation and Purification Technology</i> , 2021, 278, 119551.	3.9	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. <i>Chemosphere</i> , 2022, 287, 132132.	4.2	11
70	Electrochemical denitrification of metal-finishing wastewater: Influence of operational parameters. <i>Korean Journal of Chemical Engineering</i> , 2012, 29, 483-488.	1.2	10
71	Diethylene Glycol-Assisted Organized TiO ₂ Nanostructures for Photocatalytic Wastewater Treatment Ceramic Membranes. <i>Water (Switzerland)</i> , 2019, 11, 750.	1.2	10
72	Particle fouling in submerged microfiltration membranes: effects of hollow-fiber length and aeration rate. <i>Journal of Water Supply: Research and Technology - AQUA</i> , 2006, 55, 535-547.	0.6	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.	1.3	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.	4.0	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.	1.4	8
77	Dynamic anaerobic membrane bioreactor coupled with sulfate reduction (SrDMBR) for saline wastewater treatment. <i>Bioresource Technology</i> , 2022, 346, 126447.	4.8	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.	1.3	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.	1.4	7
80	In-situ TiO ₂ Formation and Performance on Ceramic Membranes in Photocatalytic Membrane Reactor. <i>Membrane Journal</i> , 2017, 27, 328-335.	0.2	6
81	Direct observations of membrane scale in membrane bioreactor for wastewater treatment application. <i>Water Science and Technology</i> , 2010, 61, 2267-2272.	1.2	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.	3.1	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.	6.6	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.	4.2	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.	2.2	1
88	Water sustainability: a spectrum of innovative technology and remediation methods. <i>Environmental Earth Sciences</i> , 2018, 77, 1.	1.3	0
89	Alumina Membrane Bioreactor. , 2020, , 115-139.		0