

David K Wang

List of Publications by Year in descending order

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79
papers

2,149
citations

201658

27
h-index

265191

42
g-index

79
all docs

79
docs citations

79
times ranked

2240
citing authors

#	ARTICLE	IF	CITATIONS
1	Fabrication of nanostructured TiO ₂ hollow fiber photocatalytic membrane and application for wastewater treatment. <i>Chemical Engineering Journal</i> , 2014, 236, 314-322.	12.7	111
2	Processing municipal wastewaters by forward osmosis using CTA membrane. <i>Journal of Membrane Science</i> , 2014, 468, 269-275.	8.2	103
3	Simultaneous heat and water recovery from flue gas by membrane condensation: Experimental investigation. <i>Applied Thermal Engineering</i> , 2017, 113, 843-850.	6.0	100
4	Microporous Silica Based Membranes for Desalination. <i>Water (Switzerland)</i> , 2012, 4, 629-649.	2.7	91
5	Interlayer-free P123 carbonised template silica membranes for desalination with reduced salt concentration polarisation. <i>Journal of Membrane Science</i> , 2015, 475, 376-383.	8.2	90
6	Performance and Long Term Stability of Mesoporous Silica Membranes for Desalination. <i>Membranes</i> , 2013, 3, 136-150.	3.0	83
7	Recent progresses on fabrication of photocatalytic membranes for water treatment. <i>Catalysis Today</i> , 2014, 230, 47-54.	4.4	82
8	High performance interlayer-free mesoporous cobalt oxide silica membranes for desalination applications. <i>Desalination</i> , 2015, 365, 308-315.	8.2	72
9	Interlayer-free hybrid carbon-silica membranes for processing brackish to brine salt solutions by pervaporation. <i>Journal of Membrane Science</i> , 2017, 523, 197-204.	8.2	59
10	Optimum interaction of light intensity and CO ₂ concentration in bioremediating N-rich real wastewater via assimilation into attached microalgal biomass as the feedstock for biodiesel production. <i>Chemical Engineering Research and Design</i> , 2020, 141, 355-365.	5.6	59
11	Facile Preparation of Starch-Based Electroconductive Films with Ionic Liquid. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 5457-5467.	6.7	58
12	Synthesis and Characterization of a POSS-PEG Macromonomer and POSS-PEG-PLA Hydrogels for Periodontal Applications. <i>Biomacromolecules</i> , 2014, 15, 666-679.	5.4	45
13	FT-IR characterization and hydrolysis of PLA-PEG-PLA based copolyester hydrogels with short PLA segments and a cytocompatibility study. <i>Journal of Polymer Science Part A</i> , 2013, 51, 5163-5176.	2.3	40
14	Structural evolution of nickel oxide silica sol-gel for the preparation of interlayer-free membranes. <i>Journal of Non-Crystalline Solids</i> , 2016, 447, 9-15.	3.1	40
15	Enhancing the antifouling properties of a PVDF membrane for protein separation by grafting branch-like zwitterions via a novel amphiphilic SMA-HEA linker. <i>Journal of Membrane Science</i> , 2021, 624, 119126.	8.2	39
16	Effect of membrane properties on tilted panel performance of microalgae biomass filtration for biofuel feedstock. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 120, 109666.	16.4	38
17	Uncovering the effects of PEG porogen molecular weight and concentration on ultrafiltration membrane properties and protein purification performance. <i>Journal of Membrane Science</i> , 2021, 618, 118729.	8.2	38
18	Vacuum-assisted tailoring of pore structures of phenolic resin derived carbon membranes. <i>Journal of Membrane Science</i> , 2017, 525, 240-248.	8.2	37

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19	Rational design and synthesis of molecular-sieving, photocatalytic, hollow fiber membranes for advanced water treatment applications. <i>Journal of Membrane Science</i> , 2017, 524, 163-173.	8.2	37
20	Development of rapid thermal processing of tubular cobalt oxide silica membranes for gas separations. <i>Journal of Membrane Science</i> , 2014, 456, 192-201.	8.2	36
21	An improved approach for evaluating the semicrystalline lamellae of starch granules by synchrotron SAXS. <i>Carbohydrate Polymers</i> , 2017, 158, 29-36.	10.2	36
22	Natural Biopolymer Alloys with Superior Mechanical Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 2792-2802.	6.7	36
23	A novel ethanol dehydration process by forward osmosis. <i>Chemical Engineering Journal</i> , 2013, 232, 397-404.	12.7	35
24	Reversible Redox Effect on Gas Permeation of Cobalt Doped Ethoxy Polysiloxane (ES40) Membranes. <i>Scientific Reports</i> , 2013, 3, 1648.	3.3	33
25	Shielding immobilized biomass cryogel beads with powdered activated carbon for the simultaneous adsorption and biodegradation of 4-chlorophenol. <i>Journal of Cleaner Production</i> , 2018, 205, 828-835.	9.3	31
26	Physicochemical and photocatalytic properties of carbonaceous char and titania composite hollow fibers for wastewater treatment. <i>Carbon</i> , 2016, 109, 182-191.	10.3	30
27	Mixed Matrix Carbon Molecular Sieve and Alumina (CMS-Al ₂ O ₃) Membranes. <i>Scientific Reports</i> , 2016, 6, 30703.	3.3	30
28	Ternary Phase-Separation Investigation of Sol-Gel Derived Silica from Ethyl Silicate 40. <i>Scientific Reports</i> , 2015, 5, 14560.	3.3	27
29	Binary gas mixture and hydrothermal stability investigation of cobalt silica membranes. <i>Journal of Membrane Science</i> , 2015, 493, 470-477.	8.2	27
30	Influence of sol-gel conditioning on the cobalt phase and the hydrothermal stability of cobalt oxide silica membranes. <i>Journal of Membrane Science</i> , 2015, 475, 425-432.	8.2	27
31	A further study on supramolecular structure changes of waxy maize starch subjected to alkaline treatment by extended-q small-angle neutron scattering. <i>Food Hydrocolloids</i> , 2019, 95, 133-142.	10.7	26
32	Hydration-induced crystalline transformation of starch polymer under ambient conditions. <i>International Journal of Biological Macromolecules</i> , 2017, 103, 152-157.	7.5	25
33	Rapid thermal treatment of interlayer-free ethyl silicate 40 derived membranes for desalination. <i>Journal of Membrane Science</i> , 2016, 516, 94-103.	8.2	24
34	Novel inorganic membrane for the percrystallization of mineral, food and pharmaceutical compounds. <i>Journal of Membrane Science</i> , 2018, 550, 407-415.	8.2	24
35	Improved stability of ethyl silicate interlayer-free membranes by the rapid thermal processing (RTP) for desalination. <i>Desalination</i> , 2017, 402, 25-32.	8.2	23
36	Low band-gap energy photocatalytic membrane based on SrTiO ₃ Cr and PVDF substrate: BSA protein degradation and separation application. <i>Journal of Membrane Science</i> , 2019, 586, 326-337.	8.2	23

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37	Enhanced anti-protein fouling of PVDF membrane via hydrophobic-terminated amphiphilic linker. <i>Chemical Engineering Research and Design</i> , 2020, 156, 273-280.	5.6	23
38	Physicochemical characterisation and hydrothermal stability investigation of cobalt-incorporated silica xerogels. <i>RSC Advances</i> , 2014, 4, 18862-18870.	3.6	22
39	Interlayer-free microporous cobalt oxide silica membranes via silica seeding sol-gel technique. <i>Journal of Membrane Science</i> , 2015, 492, 1-8.	8.2	20
40	Designing Co ₃ O ₄ /silica catalysts and intensified ultrafiltration membrane-catalysis process for wastewater treatment. <i>Chemical Engineering Journal</i> , 2021, 419, 129465.	12.7	20
41	Rapid thermal processing of tubular cobalt oxide silica membranes. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 7394-7399.	7.1	19
42	Claisen-type degradation mechanism of cellulose triacetate membranes in ethanol-water mixtures. <i>Journal of Membrane Science</i> , 2014, 454, 119-125.	8.2	19
43	Phototransformation-Induced Aggregation of Functionalized Single-Walled Carbon Nanotubes: The Importance of Amorphous Carbon. <i>Environmental Science & Technology</i> , 2016, 50, 3494-3502.	10.0	17
44	Solvent effects on diffusion channel construction of organosilica membrane with excellent CO ₂ separation properties. <i>Journal of Membrane Science</i> , 2021, 618, 118758.	8.2	17
45	Achieving stable operation and shortcut nitrogen removal in a long-term operated aerobic forward osmosis membrane bioreactor (FOMBR) for treating municipal wastewater. <i>Chemosphere</i> , 2020, 260, 127581.	8.2	16
46	Hybrid vinyl silane and P123 template sol-gel derived carbon silica membrane for desalination. <i>Journal of Sol-Gel Science and Technology</i> , 2018, 85, 280-289.	2.4	15
47	The influence of composition on the physical properties of PLA-PEG-PLA-co-Boltorn based polyester hydrogels and their biological performance. <i>Journal of Materials Chemistry</i> , 2012, 22, 6994.	6.7	14
48	Evaluating the membrane fouling formation and chemical cleaning strategy in forward osmosis membrane filtration treating domestic sewage. <i>Environmental Science: Water Research and Technology</i> , 2018, 4, 2092-2103.	2.4	14
49	Photocatalytic reduction of Cr(VI) by graphene oxide materials under sunlight or visible light: the effects of low-molecular-weight chemicals. <i>Environmental Science: Nano</i> , 2020, 7, 2399-2409.	4.3	14
50	Synthesis of a new hyperbranched, vinyl macromonomer through the use of click chemistry: Synthesis and characterization of copolymer hydrogels with PEG diacrylate. <i>Journal of Polymer Science Part A</i> , 2012, 50, 1143-1157.	2.3	13
51	Improved hydrothermal stability of silica materials prepared from ethyl silicate 40. <i>RSC Advances</i> , 2015, 5, 6092-6099.	3.6	13
52	Vacuum film etching effect of carbon alumina mixed matrix membranes. <i>Journal of Membrane Science</i> , 2017, 541, 53-61.	8.2	13
53	Hydrothermal stability investigation of micro- and mesoporous silica containing long-range ordered cobalt oxide clusters by XAS. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 19500-19506.	2.8	12
54	Inter-layer free cobalt-doped silica membranes for pervaporation of ammonia solutions. <i>Journal of Membrane Science</i> , 2018, 553, 111-116.	8.2	12

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55	Enhanced catalyst dispersion and structural control of Co ₃ O ₄ -silica nanocomposites by rapid thermal processing. <i>Applied Catalysis B: Environmental</i> , 2020, 262, 118246.	20.2	11
56	Recycling waste plastics as hollow fiber substrates to improve the anti-wettability of supported ionic liquid membranes for CO ₂ separation. <i>Journal of Cleaner Production</i> , 2020, 276, 124194.	9.3	11
57	The role of residual Cu(ii) from click-chemistry in the catalyzed hydrolysis of Boltorn polyester-based hydrogels. <i>Soft Matter</i> , 2012, 8, 435-445.	2.7	10
58	Synthesis and characterization of POSS-(PAA) ₈ star copolymers and GICs for dental applications. <i>Dental Materials</i> , 2016, 32, e82-e92.	3.5	10
59	Synthesis, swelling, degradation and cytocompatibility of crosslinked PLLA-PEG-PLLA networks with short PLLA blocks. <i>European Polymer Journal</i> , 2016, 84, 448-464.	5.4	10
60	Economic, energy and carbon footprint assessment of integrated forward osmosis membrane bioreactor (FOMBR) process in urban wastewater treatment. <i>Environmental Science: Water Research and Technology</i> , 2020, 6, 153-165.	2.4	10
61	Interfacially-confined polyetherimide tubular membranes for H ₂ , CO ₂ and N ₂ separations. <i>Journal of Membrane Science</i> , 2022, 655, 120596.	8.2	10
62	Homogeneous sub-nanophase network tailoring of dual organosilica membrane for enhancing CO ₂ gas separation. <i>Journal of Membrane Science</i> , 2022, 644, 120170.	8.2	9
63	Designing Hydrogel-Modified Cellulose Triacetate Membranes with High Flux and Solute Selectivity for Forward Osmosis. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 20845-20853.	3.7	8
64	Modulation of microporous/mesoporous structures in self-templated cobalt-silica. <i>Scientific Reports</i> , 2015, 5, 7970.	3.3	6
65	Molecular Weight Cut-Off and Structural Analysis of Vacuum-Assisted Titania Membranes for Water Processing. <i>Materials</i> , 2016, 9, 938.	2.9	6
66	Rapid thermally processed hierarchical titania-based hollow fibres with tunable physicochemical and photocatalytic properties. <i>Separation and Purification Technology</i> , 2018, 206, 99-106.	7.9	6
67	Substrate Effect on Carbon/Ceramic Mixed Matrix Membrane Prepared by a Vacuum-Assisted Method for Desalination. <i>Processes</i> , 2018, 6, 47.	2.8	6
68	Enhancing the active site accessibility of cobalt-silica catalysts for improved Fenton-like performance. <i>Chemical Engineering Journal</i> , 2022, 432, 134435.	12.7	6
69	Effect of heat diffusivity for driving chain stitching of dual-type hybrid organosilica-derived membranes. <i>Separation and Purification Technology</i> , 2022, 290, 120848.	7.9	5
70	Starch Thermal Processing. , 2017, , 187-227.		4
71	High Selectivity Gas Separation by Interfacial Diffusion Membranes. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801273.	3.7	3
72	Photo-induced poly(styrene-[C1mim][Tf2N])-supported hollow fiber ionic liquid membranes to enhance CO ₂ separation. <i>Journal of CO₂ Utilization</i> , 2022, 56, 101871.	6.8	3

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73	Photocatalysis by Graphitic Carbon Nitride Modified with 0D, 1D, and 2D Carbon-Based Nanomaterials. Environmental Science: Nano, 0, , .	4.3	3
74	Salt storage and induced crystallisation in porous asymmetric inorganic membranes. Journal of Membrane Science, 2022, 641, 119872.	8.2	2
75	Rapid Thermal Processing of Microporous Silica Membranes. , 2017, , 317-348.		1
76	Mixed Matrix Carbon Molecular Sieve and Alumina (CMS-Al ₂ O ₃) Membranes. , 0, .		1
77	Microporous Silica Membrane: Structure, Preparation, Characterization, and Applications. , 2019, , 77-99.		0
78	Gas Separation: High Selectivity Gas Separation by Interfacial Diffusion Membranes (Adv. Mater.) Tj ETQq0 0 0 rgBT ₃ /Overlock 10 Tf 50 5	3.7	0
79	A green, hybrid cleaning strategy for the mitigation of biofouling deposition in the elevated salinity forward osmosis membrane bioreactor (FOMBR) operation. Chemosphere, 2021, 288, 132612.	8.2	0