David K Wang

List of Publications by Year
in descending order

79 papers	2,149 citations	230014 27 h-index	299063 42 g-index
79 all docs	79 docs citations	79 times ranked	2561 citing authors

#	Article	IF	Citations
1	Salt storage and induced crystallisation in porous asymmetric inorganic membranes. Journal of Membrane Science, 2022, 641, 119872.	4.1	2
2	Photo-induced poly(styrene-[C1mim][Tf2N])-supported hollow fiber ionic liquid membranes to enhance CO2 separation. Journal of CO2 Utilization, 2022, 56, 101871.	3.3	3
3	Homogeneous sub-nanophase network tailoring of dual organosilica membrane for enhancing CO2 gas separation. Journal of Membrane Science, 2022, 644, 120170.	4.1	9
4	Enhancing the active site accessibility of cobalt-silica catalysts for improved Fenton-like performance. Chemical Engineering Journal, 2022, 432, 134435.	6.6	6
5	Effect of heat diffusivity for driving chain stitching of dual-type hybrid organosilica-derived membranes. Separation and Purification Technology, 2022, 290, 120848.	3.9	5
6	Interfacially-confined polyetherimide tubular membranes for H2, CO2 and N2 separations. Journal of Membrane Science, 2022, 655, 120596.	4.1	10
7	Uncovering the effects of PEG porogen molecular weight and concentration on ultrafiltration membrane properties and protein purification performance. Journal of Membrane Science, 2021, 618, 118729.	4.1	38
8	Solvent effects on diffusion channel construction of organosilica membrane with excellent CO2 separation properties. Journal of Membrane Science, 2021, 618, 118758.	4.1	17
9	Enhancing the antifouling properties of a PVDF membrane for protein separation by grafting branch-like zwitterions via a novel amphiphilic SMA-HEA linker. Journal of Membrane Science, 2021, 624, 119126.	4.1	39
10	Designing Co3O4/silica catalysts and intensified ultrafiltration membrane-catalysis process for wastewater treatment. Chemical Engineering Journal, 2021, 419, 129465.	6.6	20
11	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.	4.2	0
12	Enhanced catalyst dispersion and structural control of Co3O4-silica nanocomposites by rapid thermal processing. Applied Catalysis B: Environmental, 2020, 262, 118246.	10.8	11
13	Economic, energy and carbon footprint assessment of integrated forward osmosis membrane bioreactor (FOMBR) process in urban wastewater treatment. Environmental Science: Water Research and Technology, 2020, 6, 153-165.	1.2	10
14	Effect of membrane properties on tilted panel performance of microalgae biomass filtration for biofuel feedstock. Renewable and Sustainable Energy Reviews, 2020, 120, 109666.	8.2	38
15	Achieving stable operation and shortcut nitrogen removal in a long-term operated aerobic forward osmosis membrane bioreactor (FOMBR) for treating municipal wastewater. Chemosphere, 2020, 260, 127581.	4.2	16
16	Recycling waste plastics as hollow fiber substrates to improve the anti-wettability of supported ionic liquid membranes for CO2 separation. Journal of Cleaner Production, 2020, 276, 124194.	4.6	11
17	Optimum interaction of light intensity and CO2 concentration in bioremediating N-rich real wastewater via assimilation into attached microalgal biomass as the feedstock for biodiesel production. Chemical Engineering Research and Design, 2020, 141, 355-365.	2.7	59
18	Photocatalytic reduction of Cr(<scp>vi</scp>) by graphene oxide materials under sunlight or visible light: the effects of low-molecular-weight chemicals. Environmental Science: Nano, 2020, 7, 2399-2409.	2.2	14

#	Article	IF	Citations
19	Enhanced antiâ€“protein fouling of PVDF membrane via hydrophobicâ€“hydrophobic adsorption of styreneâ€“terminated amphiphilic linker. Chemical Engineering Research and Design, 2020, 156, 273-280.	2.7	23
20	Designing Hydrogel-Modified Cellulose Triacetate Membranes with High Flux and Solute Selectivity for Forward Osmosis. Industrial & Engineering Chemistry Research, 2020, 59, 20845-20853.	1.8	8
21	Microporous Silica Membrane: Structure, Preparation, Characterization, and Applications. , 2019, , 77-99.		0
22	Low band-gap energy photocatalytic membrane based on SrTiO3â€“Cr and PVDF substrate: BSA protein degradation and separation application. Journal of Membrane Science, 2019, 586, 326-337.	4.1	23
23	A further study on supramolecular structure changes of waxy maize starch subjected to alkaline treatment by extended-q small-angle neutron scattering. Food Hydrocolloids, 2019, 95, 133-142.	5.6	26
24	Natural Biopolymer Alloys with Superior Mechanical Properties. ACS Sustainable Chemistry and Engineering, 2019, 7, 2792-2802.	3.2	36
25	Gas Separation: High Selectivity Gas Separation by Interfacial Diffusion Membranes (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock	1.9	0
26	High Selectivity Gas Separation by Interfacial Diffusion Membranes. Advanced Materials Interfaces, 2019, 6, 1801273.	1.9	3
27	Inter-layer free cobalt-doped silica membranes for pervaporation of ammonia solutions. Journal of Membrane Science, 2018, 553, 111-116.	4.1	12
28	Novel inorganic membrane for the percrystallization of mineral, food and pharmaceutical compounds. Journal of Membrane Science, 2018, 550, 407-415.	4.1	24
29	Hybrid vinyl silane and P123 template solâ^'gel derived carbon silica membrane for desalination. Journal of Sol-Gel Science and Technology, 2018, 85, 280-289.	1.1	15
30	Evaluating the membrane fouling formation and chemical cleaning strategy in forward osmosis membrane filtration treating domestic sewage. Environmental Science: Water Research and Technology, 2018, 4, 2092-2103.	1.2	14
31	Shielding immobilized biomass cryogel beads with powdered activated carbon for the simultaneous adsorption and biodegradation of 4-chlorophenol. Journal of Cleaner Production, 2018, 205, 828-835.	4.6	31
32	Rapid thermally processed hierarchical titania-based hollow fibres with tunable physicochemical and photocatalytic properties. Separation and Purification Technology, 2018, 206, 99-106.	3.9	6
33	Substrate Effect on Carbon/Ceramic Mixed Matrix Membrane Prepared by a Vacuum-Assisted Method for Desalination. Processes, 2018, 6, 47.	1.3	6
34	Facile Preparation of Starch-Based Electroconductive Films with Ionic Liquid. ACS Sustainable Chemistry and Engineering, 2017, 5, 5457-5467.	3.2	58
35	An improved approach for evaluating the semicrystalline lamellae of starch granules by synchrotron SAXS. Carbohydrate Polymers, 2017, 158, 29-36.	5.1	36
36	Hydration-induced crystalline transformation of starch polymer under ambient conditions. International Journal of Biological Macromolecules, 2017, 103, 152-157.	3.6	25

#	Article	IF	Citations
37	Vacuum film etching effect of carbon alumina mixed matrix membranes. Journal of Membrane Science, 2017, 541, 53-61.	4.1	13
38	Vacuum-assisted tailoring of pore structures of phenolic resin derived carbon membranes. Journal of Membrane Science, 2017, 525, 240-248.	4.1	37
39	Simultaneous heat and water recovery from flue gas by membrane condensation: Experimental investigation. Applied Thermal Engineering, 2017, 113, 843-850.	3.0	100
40	Improved stability of ethyl silicate interlayer-free membranes by the rapid thermal processing (RTP) for desalination. Desalination, 2017, 402, 25-32.	4.0	23
41	Interlayer-free hybrid carbon-silica membranes for processing brackish to brine salt solutions by pervaporation. Journal of Membrane Science, 2017, 523, 197-204.	4.1	59
42	Rational design and synthesis of molecular-sieving, photocatalytic, hollow fiber membranes for advanced water treatment applications. Journal of Membrane Science, 2017, 524, 163-173.	4.1	37
43	Starch Thermal Processing. , 2017, , 187-227.		4
44	Rapid Thermal Processing of Microporous Silica Membranes. , 2017, , 317-348.		1
45	Molecular Weight Cut-Off and Structural Analysis of Vacuum-Assisted Titania Membranes for Water Processing. Materials, 2016, 9, 938.	1.3	6
46	Synthesis and characterization of POSS-(PAA)8 star copolymers and GICs for dental applications. Dental Materials, 2016, 32, e82-e92.	1.6	10
47	Synthesis, swelling, degradation and cytocompatibility of crosslinked PLLA-PEG-PLLA networks with short PLLA blocks. European Polymer Journal, 2016, 84, 448-464.	2.6	10
48	Rapid thermal treatment of interlayer-free ethyl silicate 40 derived membranes for desalination. Journal of Membrane Science, 2016, 516, 94-103.	4.1	24
49	Physicochemical and photocatalytic properties of carbonaceous char and titania composite hollow fibers for wastewater treatment. Carbon, 2016, 109, 182-191.	5.4	30
50	Mixed Matrix Carbon Molecular Sieve and Alumina (CMS-Al2O3) Membranes. Scientific Reports, 2016, 6, 30703.	1.6	30
51	Structural evolution of nickel oxide silica sol-gel for the preparation of interlayer-free membranes. Journal of Non-Crystalline Solids, 2016, 447, 9-15.	1.5	40
52	Phototransformation-Induced Aggregation of Functionalized Single-Walled Carbon Nanotubes: The Importance of Amorphous Carbon. Environmental Science & Technology, 2016, 50, 3494-3502.	4.6	17
53	Ternary Phase-Separation Investigation of Sol-Gel Derived Silica from Ethyl Silicate 40. Scientific Reports, 2015, 5, 14560.	1.6	27
54	Interlayer-free microporous cobalt oxide silica membranes via silica seeding solâ€“gel technique. Journal of Membrane Science, 2015, 492, 1-8.	4.1	20

#	Article	IF	Citations
55	Binary gas mixture and hydrothermal stability investigation of cobalt silica membranes. Journal of Membrane Science, 2015, 493, 470-477.	4.1	27
56	High performance interlayer-free mesoporous cobalt oxide silica membranes for desalination applications. Desalination, 2015, 365, 308-315.	4.0	72
57	Modulation of microporous/mesoporous structures in self-templated cobalt-silica. Scientific Reports, 2015, 5, 7970.	1.6	6
58	Hydrothermal stability investigation of micro- and mesoporous silica containing long-range ordered cobalt oxide clusters by XAS. Physical Chemistry Chemical Physics, 2015, 17, 19500-19506.	1.3	12
59	Improved hydrothermal stability of silica materials prepared from ethyl silicate 40. RSC Advances, 2015, 5, 6092-6099.	1.7	13
60	Interlayer-free P123 carbonised template silica membranes for desalination with reduced salt concentration polarisation. Journal of Membrane Science, 2015, 475, 376-383.	4.1	90
61	Influence of solâ€“gel conditioning on the cobalt phase and the hydrothermal stability of cobalt oxide silica membranes. Journal of Membrane Science, 2015, 475, 425-432.	4.1	27
62	Fabrication of nanostructured TiO 2 hollow fiber photocatalytic membrane and application for wastewater treatment. Chemical Engineering Journal, 2014, 236, 314-322.	6.6	111
63	Recent progresses on fabrication of photocatalytic membranes for water treatment. Catalysis Today, 2014, 230, 47-54.	2.2	82
64	Claisen-type degradation mechanism of cellulose triacetate membranes in ethanolâ€“water mixtures. Journal of Membrane Science, 2014, 454, 119-125.	4.1	19
65	Processing municipal wastewaters by forward osmosis using CTA membrane. Journal of Membrane Science, 2014, 468, 269-275.	4.1	103
66	Physicochemical characterisation and hydrothermal stability investigation of cobalt-incorporated silica xerogels. RSC Advances, 2014, 4, 18862-18870.	1.7	22
67	Synthesis and Characterization of a POSS-PEG Macromonomer and POSS-PEG-PLA Hydrogels for Periodontal Applications. Biomacromolecules, 2014, 15, 666-679.	2.6	45
68	Development of rapid thermal processing of tubular cobalt oxide silica membranes for gas separations. Journal of Membrane Science, 2014, 456, 192-201.	4.1	36
69	Reversible Redox Effect on Gas Permeation of Cobalt Doped Ethoxy Polysiloxane (ES40) Membranes. Scientific Reports, 2013, 3, 1648.	1.6	33
70	Performance and Long Term Stability of Mesoporous Silica Membranes for Desalination. Membranes, 2013, 3, 136-150.	1.4	83
71	Rapid thermal processing of tubular cobalt oxide silica membranes. International Journal of Hydrogen Energy, 2013, 38, 7394-7399.	3.8	19
72	A novel ethanol dehydration process by forward osmosis. Chemical Engineering Journal, 2013, 232, 397-404.	6.6	35

#	Article	IF	Citations
73	FT-IR characterization and hydrolysis of PLA-PEG-PLA based copolyester hydrogels with short PLA segments and a cytocompatibility study. Journal of Polymer Science Part A, 2013, 51, 5163-5176.	2.5	40
74	Microporous Silica Based Membranes for Desalination. Water (Switzerland), 2012, 4, 629-649.	1.2	91
75	The role of residual Cu(ii) from click-chemistry in the catalyzed hydrolysis of Boltorn polyester-based hydrogels. Soft Matter, 2012, 8, 435-445.	1.2	10
76	The influence of composition on the physical properties of PLA-PEG-PLA-co-Boltorn based polyester hydrogels and their biological performance. Journal of Materials Chemistry, 2012, 22, 6994.	6.7	14
77	Synthesis of a new hyperbranched, vinyl macromonomer through the use of click chemistry: Synthesis and characterization of copolymer hydrogels with PEG diacrylate. Journal of Polymer Science Part A, 2012, 50, 1143-1157.	2.5	13
78	Mixed Matrix Carbon Molecular Sieve and Alumina (CMS-Al2O3) Membranes. , 0, .		1
79	Photocatalysis by Graphitic Carbon Nitride Modified with 0D, 1D, and 2D Carbon-Based Nanomaterials. Environmental Science: Nano, 0, , .	2.2	3