

J D Way, J Douglas Way

List of Publications by Year in descending order

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115
docs citations

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times ranked

3452
citing authors

#	ARTICLE	IF	CITATIONS
1	Compact ammonia reforming at low temperature using catalytic membrane reactors. Journal of Membrane Science, 2022, 644, 120147.	4.1	15
2	Design and operational considerations of catalytic membrane reactors for ammonia synthesis. AIChE Journal, 2021, 67, e17259.	1.8	12
3	Ammonia separation from N ₂ and H ₂ over LTA zeolitic imidazolate framework membranes. Journal of Membrane Science, 2021, 623, 119078.	4.1	28
4	Ceramic/Metal-Supported, Tubular, Molten Carbonate Membranes for High-Temperature CO ₂ Separations. Industrial & Engineering Chemistry Research, 2020, 59, 13706-13715.	1.8	7
5	PdAu/YSZ composite hydrogen separation membranes with enhanced stability in the presence of CO. Journal of Membrane Science, 2020, 611, 118371.	4.1	11
6	Barium-Promoted Ruthenium Catalysts on Yttria-Stabilized Zirconia Supports for Ammonia Synthesis. ACS Sustainable Chemistry and Engineering, 2019, 7, 18038-18047.	3.2	16
7	Efficient Ammonia Decomposition in a Catalytic Membrane Reactor To Enable Hydrogen Storage and Utilization. ACS Sustainable Chemistry and Engineering, 2019, 7, 5975-5985.	3.2	84
8	High temperature deuterium enrichment using TiC coated vanadium membranes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	7
9	Experimental and Theoretical Insights into the Potential of V ₂ O ₃ Surface Coatings for Hydrogen Permeable Vanadium Membranes. Journal of Physical Chemistry C, 2018, 122, 3488-3496.	1.5	13
10	Fabrication and operational considerations of hydrogen permeable Mo ₂ C/V metal membranes and improvement with application of Pd. Journal of Membrane Science, 2018, 549, 559-566.	4.1	22
11	Galvanic hydrogen pumping performance of copper electrodes fabricated by electroless plating on a BaZr _{0.9} -Ce _{0.1} O ₃ -proton-conducting ceramic membrane. Solid State Ionics, 2018, 317, 256-262.	1.3	9
12	Apparent activation energy for hydrogen permeation and its relation to the composition of homogeneous PdAu alloy thin-film membranes. Separation and Purification Technology, 2018, 191, 370-374.	3.9	13
13	Application of TiC in Vanadium-Based Hydrogen Membranes. Industrial & Engineering Chemistry Research, 2018, 57, 16084-16094.	1.8	19
14	Inhibition of hydrogen flux in palladium membranes by pressure-induced restructuring of the membrane surface. Journal of Membrane Science, 2017, 535, 70-78.	4.1	15
15	Palladium-copper membranes for hydrogen separation. Separation and Purification Technology, 2017, 186, 39-44.	3.9	77
16	Dense Inorganic Membranes for Hydrogen Separation. , 2017, , 271-363.		4
17	High performance fuel electrodes fabricated by electroless plating of copper on BaZr _{0.8} Ce _{0.1} Y _{0.1} O _{3-δ} proton-conducting ceramic. Journal of Power Sources, 2017, 365, 399-407.	4.0	4
18	Reduction of Mg from a MgO/MgAl ₂ O ₄ support by atomic hydrogen permeation through thin-film Pd membranes. Journal of Membrane Science, 2017, 541, 312-320.	4.1	6

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19	Fabrication of reducing atmosphere electrodes (fuel electrodes) by electroless plating of copper on BaZr _{0.9} xCe _x Y _{0.1} O ₃ A proton-conducting ceramic. International Journal of Hydrogen Energy, 2017, 42, 16911-16919.	3.8	7
20	Glass frit sealing method for macroscopic defects in Pd-based composite membranes with application in catalytic membrane reactors. Separation and Purification Technology, 2017, 172, 68-75.	3.9	16
21	Steam methane reforming in a PdAu membrane reactor: Long-term assessment. International Journal of Hydrogen Energy, 2016, 41, 10193-10201.	3.8	56
22	The role (or lack thereof) of nitrogen or ammonia adsorption-induced hydrogen flux inhibition on palladium membrane performance. Journal of Membrane Science, 2016, 514, 65-72.	4.1	31
23	Rapid annealing of sequentially plated Pd-Au composite membranes using high pressure hydrogen. Journal of Membrane Science, 2016, 513, 197-205.	4.1	28
24	An experimental and techno-economic assessment of solar reforming for H ₂ production. International Journal of Hydrogen Energy, 2016, 41, 14583-14595.	3.8	14
25	Injectable and microporous scaffold of densely-packed, growth factor-encapsulating chitosan microgels. Carbohydrate Polymers, 2016, 152, 792-801.	5.1	37
26	Application of a PdRu composite membrane to hydrogen production in a high temperature membrane reactor. Separation and Purification Technology, 2015, 147, 388-397.	3.9	70
27	The influence of heat treatment on the thermal stability of Pd composite membranes. Journal of Membrane Science, 2015, 494, 113-120.	4.1	22
28	A comparison of the performance and stability of Pd/BCC metal composite membranes for hydrogen purification. International Journal of Hydrogen Energy, 2014, 39, 19009-19017.	3.8	39
29	Identification of thermally stable Pd-alloy composite membranes for high temperature applications. Journal of Membrane Science, 2014, 466, 151-160.	4.1	58
30	PdAu and PdAuAg composite membranes for hydrogen separation from synthetic water-gas shift streams containing hydrogen sulfide. Journal of Membrane Science, 2014, 465, 167-176.	4.1	59
31	Functionalized Inorganic Membranes for High-Temperature CO ₂ /N ₂ Separation. Green Chemistry and Sustainable Technology, 2014, , 223-245.	0.4	0
32	PdPt/YSZ composite membranes for hydrogen separation from synthetic water-gas shift streams. Journal of Membrane Science, 2013, 437, 257-264.	4.1	40
33	Membrane studies of hydrogen transport through $\text{Mo}_2\text{C}/\text{Ni}$ composite membranes. Journal of Membrane Science, 2013, 427, 150-154.	4.1	27
34	Low Voltage Electrochemical Process for Direct Carbon Dioxide Sequestration. Journal of the Electrochemical Society, 2012, 159, B627-B628.	1.3	24
35	Diffusion of Atomic Hydrogen through VNi Alloy Membranes under Nondilute Conditions. Journal of Physical Chemistry C, 2012, 116, 1512-1518.	1.5	51
36	A sorption rate hypothesis for the increase in H ₂ permeability of palladium-silver (PdAg) membranes caused by air oxidation. International Journal of Hydrogen Energy, 2012, 37, 583-593.	3.8	30

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37	Sulfur tolerant PdAu and PdAuPt alloy hydrogen separation membranes. <i>Journal of Membrane Science</i> , 2012, 405-406, 11-19.	4.1	59
38	Effects of heat treatment in air on hydrogen sorption over Pd-Ag and Pd-Au membrane surfaces. <i>Journal of Membrane Science</i> , 2012, 403-404, 78-83.	4.1	29
39	Synthesis of Mo_2C Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 517-521.	4.0	60
40	Identifying Metal Alloys with High Hydrogen Permeability Using High Throughput Theory and Experimental Testing. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 3040-3044.	2.1	16
41	Dense Carbide/Metal Composite Membranes for Hydrogen Separations Without Platinum Group Metals. <i>Advanced Materials</i> , 2011, 23, 3585-3589.	11.1	36
42	3-Aminopropyltriethoxysilane functionalized inorganic membranes for high temperature CO ₂ /N ₂ separation. <i>Journal of Membrane Science</i> , 2011, 369, 139-147.	4.1	76
43	Optimizing the synthesis of composite polyvinylidene dichloride-based selective surface flow carbon membranes for gas separation. <i>Journal of Membrane Science</i> , 2011, 369, 243-249.	4.1	11
44	Palladium-gold membranes in mixed gas streams with hydrogen sulfide: Effect of alloy content and fabrication technique. <i>Journal of Membrane Science</i> , 2011, 378, 35-41.	4.1	58
45	Effects of fabrication technique upon material properties and permeation characteristics of palladium-gold alloy membranes for hydrogen separations. <i>Gold Bulletin</i> , 2010, 43, 287-297.	3.2	27
46	Palladium and palladium alloy membranes for hydrogen separation and production: History, fabrication strategies, and current performance. <i>Separation and Purification Technology</i> , 2010, 73, 59-64.	3.9	187
47	Predicting, Fabricating, and Permeability Testing of Free-Standing Ternary Palladium-Copper-Gold Membranes for Hydrogen Separation. <i>Journal of Physical Chemistry C</i> , 2010, 114, 17173-17180.	1.5	43
48	The influence of temperature on the sorption and permeability of CO ₂ in poly(fluoroalkoxyphosphazene) membranes. <i>Journal of Membrane Science</i> , 2009, 344, 199-203.	4.1	12
49	Palladium-ruthenium membranes for hydrogen separation fabricated by electroless co-deposition. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 6484-6491.	3.8	69
50	The effects of fabrication and annealing on the structure and hydrogen permeation of Pd-Au binary alloy membranes. <i>Journal of Membrane Science</i> , 2009, 340, 227-233.	4.1	56
51	Un-supported Palladium Alloy Membranes for the Production of Hydrogen. , 2009, , 203-219.		2
52	Palladium-Copper and Palladium-Gold Alloy Composite Membranes for Hydrogen Separations. , 2009, , 221-239.		3
53	Unsupported palladium alloy foil membranes fabricated by electroless plating. <i>Journal of Membrane Science</i> , 2008, 316, 112-118.	4.1	94
54	Carbon dioxide selective mixed-matrix membranes formulation and characterization using rubbery substituted polyphosphazene. <i>Journal of Membrane Science</i> , 2008, 324, 151-161.	4.1	53

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55	Concentration and temperature dependence on diffusivities of CO ₂ and N ₂ for poly(dimethyl, Tj ETQq1 1 0.784314,rgBT/Oyerlock 10	1.8	3
56	Synthesis and Characterization of Perfluorinated Carboxylate/Sulfonate Ionomer Membranes for Separation and Solid Electrolyte Applications. Chemistry of Materials, 2007, 19, 4576-4584.	3.2	25
57	Removal of Water from Aqueous Nitric Acid Using Bifunctional Perfluorinated Ionomer Membranes. Industrial & Engineering Chemistry Research, 2007, 46, 6032-6040.	1.8	3
58	Dual-Surface-Modified Reverse-Selective Membranes. Industrial & Engineering Chemistry Research, 2007, 46, 7246-7252.	1.8	6
59	The effects of thermal annealing on commercial Nafion [®] membranes. Journal of Membrane Science, 2007, 298, 190-201.	4.1	86
60	The relationship between proton conductivity and water permeability in composite carboxylate/sulfonate perfluorinated ionomer membranes. Journal of Power Sources, 2007, 172, 57-66.	4.0	15
61	Characterization of Substituted Polyphosphazene Membranes ^â Pure and Mixed Gas Results. Industrial & Engineering Chemistry Research, 2006, 45, 6570-6577.	1.8	6
62	Effects of Carrier Mobility on Carrier Saturation Phenomenon in Facilitated Transport Membranes. Industrial & Engineering Chemistry Research, 2006, 45, 8213-8216.	1.8	2
63	High flux palladium ^â copper composite membranes for hydrogen separations. Desalination, 2006, 193, 224-229.	4.0	62
64	Characterization of silicone rubber membrane materials at low temperature and low pressure conditions. Journal of Membrane Science, 2006, 272, 125-136.	4.1	44
65	Dehydration of nitric acid using perfluoro carboxylate ionomer membranes. Journal of Membrane Science, 2005, 249, 65-73.	4.1	11
66	Investigation of the carrier saturation in facilitated transport of unsaturated hydrocarbons. Journal of Membrane Science, 2005, 250, 277-282.	4.1	12
67	Pd and Pd ^â Cu membranes: inhibition of H permeation by HS. Journal of Membrane Science, 2005, 254, 49-62.	4.1	186
68	Silane modified inorganic membranes: Effects of silane surface structure. Journal of Membrane Science, 2005, 259, 34-46.	4.1	43
69	The effect of air exposure on palladium ^â copper composite membranes. Applied Surface Science, 2005, 240, 85-104.	3.1	93
70	Nitric Acid Dehydration Using Mixed Perfluorosulfonate and -carboxylate Ionomer Membranes. Industrial & Engineering Chemistry Research, 2005, 44, 3672-3680.	1.8	9
71	Membranes on Mars for In-Situ Resource Utilization Processes. , 2004, , .		0
72	Determination of mechanisms via computational chemistry for xylene and hydroxynaphthalene separations on beta-cyclodextrin. Molecular Physics, 2004, 102, 183-189.	0.8	2

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73	Effects of cross-linking and spacer groups on beta-cyclodextrin bonded liquid chromatographic separation. Korean Journal of Chemical Engineering, 2004, 21, 465-468.	1.2	25
74	Effects of Water Gas Shift Gases on Pd~Cu Alloy Membrane Surface Morphology and Separation Properties. Industrial & Engineering Chemistry Research, 2004, 43, 4188-4198.	1.8	60
75	Development of a Model Surface Flow Membrane by Modification of Porous Vycor Glass with a Fluorosilane. Industrial & Engineering Chemistry Research, 2004, 43, 3033-3040.	1.8	29
76	PREPARATION AND TESTING OF CARBON/SILICALITE-1 COMPOSITE MEMBRANES. Chemical Engineering Communications, 2004, 191, 665-681.	1.5	12
77	A study of direct loading of beta-cyclodextrins on glass beads as chromatographic separators. Korean Journal of Chemical Engineering, 2003, 20, 528-531.	1.2	1
78	Physical characterization of 0.5 µm cut-off sintered stainless steel membranes. Journal of Membrane Science, 2003, 213, 13-23.	4.1	16
79	Separation of Isomeric Xylenes Using Cyclodextrin-Modified Ceramic Membranes. Industrial & Engineering Chemistry Research, 2003, 42, 1243-1252.	1.8	13
80	Influence of Alloy Composition and Membrane Fabrication on the Pressure Dependence of the Hydrogen Flux of Palladium~Copper Membranes. Industrial & Engineering Chemistry Research, 2003, 42, 5827-5835.	1.8	98
81	Aqueous Ion Transport Studies in Stainless Steel Membranes. Industrial & Engineering Chemistry Research, 2003, 42, 2853-2860.	1.8	0
82	INNOVATIONS IN PALLADIUM MEMBRANE RESEARCH. Separation and Purification Reviews, 2002, 31, 1-169.	0.8	574
83	Liquid chromatographic separation of xylene isomers on β-cyclodextrin bonded phases. Korean Journal of Chemical Engineering, 2002, 19, 876-879.	1.2	7
84	The dehydration of nitric acid using pervaporation and a nafion perfluorosulfonate/perfluorocarboxylate bilayer membrane. Journal of Membrane Science, 2002, 203, 155-166.	4.1	31
85	The influence of alloy composition on the H ₂ flux of composite Pd~Cu membranes. Desalination, 2002, 147, 411-416.	4.0	113
86	The Effect of Heating Rate and Gas Atmosphere on Template Decomposition in Silicalite-1. Industrial & Engineering Chemistry Research, 2001, 40, 4844-4849.	1.8	19
87	Silver doped Nafion-poly(pyrrole) membranes for facilitated permeation of liquid-phase olefins. Journal of Membrane Science, 2001, 189, 271-279.	4.1	34
88	Gas permeation properties of poly(lactic acid). Journal of Membrane Science, 2001, 190, 243-251.	4.1	145
89	Development of a model surface flow membrane by modification of porous γ-alumina with octadecyltrichlorosilane. Separation and Purification Technology, 2001, 25, 195-210.	3.9	35
90	A New Preparation Technique for Pd/Alumina Membranes with Enhanced High-Temperature Stability. Industrial & Engineering Chemistry Research, 1999, 38, 1925-1936.	1.8	113

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91	Modification of Porous Alumina Membranes Using Al ₂ O ₃ Atomic Layer Controlled Deposition. Chemistry of Materials, 1997, 9, 707-714.	3.2	73
92	Reactive polymer membranes for ethylene/ethane separation. Journal of Membrane Science, 1997, 136, 111-120.	4.1	38
93	Chemical Separations with Liquid Membranes: An Overview. ACS Symposium Series, 1996, , 1-10.	0.5	46
94	Separation of Ethylene from Ethane Using Perfluorosulfonic Acid Ion-Exchange Membranes. ACS Symposium Series, 1996, , 270-285.	0.5	3
95	A Tribute to Norman N. Li. ACS Symposium Series, 1996, , 11-15.	0.5	0
96	Gas Transport in a Microporous Silica Membrane. , 1996, , .		3
97	Atomic layer controlled deposition of Al ₂ O ₃ films using binary reaction sequence chemistry. Applied Surface Science, 1996, 107, 128-136.	3.1	124
98	Single component and mixed gas transport in a silica hollow fiber membrane. Journal of Membrane Science, 1995, 104, 27-42.	4.1	56
99	Catalytic decomposition of ammonia in a membrane reactor. Journal of Membrane Science, 1994, 96, 259-274.	4.1	83
100	Description of Facilitated Transport and Environmental Applications. , 1994, , 317-342.		7
101	A mathematical model of a catalytic membrane reactor for the decomposition of NH ₃ . Journal of Membrane Science, 1993, 77, 265-282.	4.1	40
102	Synthesis of porous-magnetic chitosan beads for removal of cadmium ions from wastewater. Industrial & Engineering Chemistry Research, 1993, 32, 2170-2178.	1.8	315
103	Preparation and characterization of a composite palladium-ceramic membrane. Industrial & Engineering Chemistry Research, 1993, 32, 3006-3013.	1.8	236
104	Hollow Fiber Inorganic Membranes for Gas Separations. Separation Science and Technology, 1992, 27, 29-41.	1.3	103
105	Facilitated Transport. , 1992, , 833-866.		21
106	Competitive facilitated transport of acid gases in perfluorosulfonic acid membranes. Journal of Membrane Science, 1989, 46, 309-324.	4.1	46
107	A theoretical comparison of facilitated transport and solution-diffusion membrane modules for gas separation. Separation and Purification Technology, 1988, 2, 65-71.	0.3	21
108	Facilitated transport of CO ₂ in ion exchange membranes. AIChE Journal, 1987, 33, 480-487.	1.8	132

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109	Effect of external mass-transfer resistance on facilitated transport. <i>Industrial & Engineering Chemistry Fundamentals</i> , 1986, 25, 450-452.	0.7	49
110	Selective transport of gaseous carbon monoxide through liquid membranes using an iron(II) macrocyclic complex. <i>Inorganic Chemistry</i> , 1985, 24, 1147-1152.	1.9	31
111	An Apparatus for the Measurement of Gas Fluxes through Immobilized Liquid Membranes. <i>Separation Science and Technology</i> , 1984, 19, 21-32.	1.3	21
112	Liquid membrane transport: a survey. <i>Journal of Membrane Science</i> , 1982, 12, 239-259.	4.1	148