

# Adolfo Iulianelli

## List of Publications by Year in descending order

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111  
papers

4,462  
citations

81900

39  
h-index

114465

63  
g-index

124  
all docs

124  
docs citations

124  
times ranked

3282  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced carbon dioxide capture by membrane contactors in presence of nanofluids. , 2022, , 399-411.		0
2	CFD Development of a Silica Membrane Reactor during HI Decomposition Reaction Coupling with CO2 Methanation at Sulfur-Iodine Cycle. Nanomaterials, 2022, 12, 824.	4.1	2
3	Novel bio-polymer based membranes for CO2/CH4 separation. International Journal of Greenhouse Gas Control, 2022, 117, 103657.	4.6	11
4	Hydrogen and renewable energy: the role of membrane reactor technology. , 2022, , 149-174.		0
5	CO2 utilization in methane reforming using La-doped SBA-16 catalysts prepared via pH adjustment method. Fuel, 2022, 322, 124248.	6.4	23
6	Sustainable H2 generation via steam reforming of biogas in membrane reactors: H2S effects on membrane performance and catalytic activity. International Journal of Hydrogen Energy, 2021, 46, 29183-29197.	7.1	26
7	Hydrogen production by silica membrane reactor during dehydrogenation of methylcyclohexane: CFD analysis. International Journal of Hydrogen Energy, 2021, 46, 19768-19777.	7.1	13
8	Biopolymers for sustainable membranes in CO2 separation: a review. Fuel Processing Technology, 2021, 213, 106643.	7.2	55
9	Conversion of ethane to ethylene and hydrogen by utilizing carbon dioxide: Screening catalysts. International Journal of Hydrogen Energy, 2021, 46, 19717-19730.	7.1	19
10	Simultaneous production of ethylene and hydrogen through carbon-dioxide-assisted conversion of ethane over cobalt-molybdenum catalysts. Journal of CO2 Utilization, 2021, 47, 101499.	6.8	10
11	Membrane technologies for space engineering. Journal of Membrane Science, 2021, 626, 119177.	8.2	25
12	Vapor phase esterification of acetic acid with ethanol in a CHA zeolite membrane reactor: A CFD analysis. Chemical Engineering Science, 2021, 236, 116536.	3.8	7
13	Catalytic hydrodeoxygenation of lignin pyrolytic-oil over Ni catalysts supported on spherical Al-MCM-41 nanoparticles: Effect of Si/Al ratio and Ni loading. Fuel, 2021, 293, 120493.	6.4	22
14	A review on mathematical modeling of packed bed membrane reactors for hydrogen production from methane. International Journal of Energy Research, 2021, 45, 20601-20633.	4.5	7
15	A Theoretical Analysis on a Multi-Bed Pervaporation Membrane Reactor during Levulinic Acid Esterification Using the Computational Fluid Dynamic Method. Membranes, 2021, 11, 635.	3.0	3
16	Modeling and optimization of a membrane gas separation based bioreactor plant for biohydrogen production by CFD-RSM combined method. Journal of Water Process Engineering, 2021, 43, 102288.	5.6	16
17	Dehydration of bio-alcohols in an enhanced membrane-assisted reactor: A rigorous sensitivity analysis and multi-objective optimization. Renewable Energy, 2021, 177, 519-543.	8.9	11
18	Theoretical evaluation of various configurations of silica membrane reactor in methanol steam reforming using CFD method. International Journal of Hydrogen Energy, 2020, 45, 7354-7363.	7.1	18

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19	Experimental evaluation of graphene oxide/TiO <sub>2</sub> -alumina nanocomposite membranes performance for hydrogen separation. International Journal of Hydrogen Energy, 2020, 45, 7479-7487.	7.1	18
20	Methanol steam reforming for hydrogen generation: A comparative modeling study between silica and Pd-based membrane reactors by CFD method. Fuel Processing Technology, 2020, 199, 106273.	7.2	37
21	Membrane reactors for sustainable hydrogen production through steam reforming of hydrocarbons: A review. Chemical Engineering and Processing: Process Intensification, 2020, 157, 108148.	3.6	66
22	An On-Board Pure H <sub>2</sub> Supply System Based on A Membrane Reactor for A Fuel Cell Vehicle: A Theoretical Study. Membranes, 2020, 10, 159.	3.0	10
23	Green hydrogen production from biocompounds through membrane engineering. , 2020, , 21-41.		0
24	Fuel and hydrogen treatment and production by membranes. , 2020, , 91-108.		0
25	Development of membrane reactor technology for H <sub>2</sub> production in reforming process for low-temperature fuel cells. , 2020, , 287-305.		3
26	Membrane engineering: Latest advancements in gas separation and pre-treatment processes, petrochemical industry and refinery, and future perspectives in emerging applications. Fuel Processing Technology, 2020, 206, 106464.	7.2	108
27	Hydrogen Refueling Stations: Safety and Sustainability. General Chemistry, 2020, 6, 190029-190029.	0.6	10
28	Hydrogen permeation and separation characteristics of a thin Pd-Au/Al <sub>2</sub> O <sub>3</sub> membrane: The effect of the intermediate layer absence. Catalysis Today, 2019, 330, 32-38.	4.4	13
29	Microporous Carbon Membrane Reactors. , 2019, , 59-75.		0
30	Theoretical Evaluation of Graphene Membrane Performance for Hydrogen Separation Using Molecular Dynamic Simulation. Membranes, 2019, 9, 110.	3.0	3
31	Recent Progresses in Application of Membrane Bioreactors in Production of Biohydrogen. Membranes, 2019, 9, 100.	3.0	33
32	A supported Pd-Cu/Al <sub>2</sub> O <sub>3</sub> membrane from solvated metal atoms for hydrogen separation/purification. Fuel Processing Technology, 2019, 195, 106141.	7.2	22
33	PLA Easy Fil “White” based membranes for CO <sub>2</sub> separation. , 2019, 9, 360-369.		18
34	Study on the Separation of H <sub>2</sub> from CO <sub>2</sub> Using a ZIF-8 Membrane by Molecular Simulation and Maxwell-Stefan Model. Molecules, 2019, 24, 4350.	3.8	9
35	Ethanol From Biomass. , 2019, , 25-59.		18
36	Steam Reforming, Preferential Oxidation, and Autothermal Reforming of Ethanol for Hydrogen Production in Membrane Reactors. , 2019, , 193-213.		6

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37	Progress in Modeling of Silica-Based Membranes and Membrane Reactors for Hydrogen Production and Purification. ChemEngineering, 2019, 3, 2.	2.4	13
38	Advances on Inorganic Membrane Reactors for Production of Hydrogen. , 2019, , 935-945.		3
39	From bioethanol exploitation to high grade hydrogen generation: Steam reforming promoted by a Co-Pt catalyst in a Pd-based membrane reactor. Renewable Energy, 2018, 119, 834-843.	8.9	55
40	Fabrication & performance study of a palladium on alumina supported membrane reactor: Natural gas steam reforming, a case study. International Journal of Hydrogen Energy, 2018, 43, 7713-7721.	7.1	22
41	Hybrid and Inorganic Membranes for CO <sub>2</sub> /H <sub>2</sub> Separation Process. , 2018, , 289-305.		1
42	Advances in Methanol Production and Utilization, with Particular Emphasis toward Hydrogen Generation via Membrane Reactor Technology. Membranes, 2018, 8, 98.	3.0	90
43	Progress in Methanol Steam Reforming Modelling via Membrane Reactors Technology. Membranes, 2018, 8, 65.	3.0	19
44	Hydrogen Production. , 2018, , 215-241.		10
45	Advances on Inorganic Membrane Reactors for Production of Hydrogen. , 2018, , 1-11.		6
46	A thin supported Pd-Au based membrane for hydrogen generation and purification: A case study. Mathematical Modelling of Engineering Problems, 2018, 5, 313-316.	0.5	1
47	New PEEK-WC and PLA membranes for H <sub>2</sub> separation. International Journal of Hydrogen Energy, 2017, 42, 22138-22148.	7.1	24
48	H <sub>2</sub> production from bioalcohols and biomethane steam reforming in membrane reactors. , 2017, , 321-344.		4
49	CFD analysis of a hybrid sorption-enhanced membrane reactor for hydrogen production during WGS reaction. International Journal of Hydrogen Energy, 2017, 42, 26914-26923.	7.1	37
50	Glycerol Production and Transformation: A Critical Review with Particular Emphasis on Glycerol Reforming Reaction for Producing Hydrogen in Conventional and Membrane Reactors. Membranes, 2017, 7, 17.	3.0	118
51	Supported Pd-Au Membrane Reactor for Hydrogen Production: Membrane Preparation, Characterization and Testing. Molecules, 2016, 21, 581.	3.8	29
52	Pure Hydrogen Production in Membrane Reactor with Mixed Reforming Reaction by Utilizing Waste Gas: A Case Study. Processes, 2016, 4, 33.	2.8	17
53	Advances on methane steam reforming to produce hydrogen through membrane reactors technology: A review. Catalysis Reviews - Science and Engineering, 2016, 58, 1-35.	12.9	261
54	The oncoming energy vector: Hydrogen produced in Pd-composite membrane reactor via bioethanol reforming over Ni/CeO <sub>2</sub> catalyst. Catalysis Today, 2016, 259, 368-375.	4.4	50

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55	Membrane reactors for the conversion of methanol and ethanol to hydrogen. , 2015, , 187-208.		4
56	CuO/ZnO catalysts for methanol steam reforming: The role of the support polarity ratio and surface area. Applied Catalysis B: Environmental, 2015, 174-175, 67-76.	20.2	107
57	Single-stage hydrogen production and separation from fossil fuels using micro- and macromembrane reactors. , 2015, , 445-468.		7
58	Water gas shift reaction in membrane reactors: Theoretical investigation by artificial neural networks model and experimental validation. International Journal of Hydrogen Energy, 2015, 40, 5897-5906.	7.1	33
59	Membrane reactors for steam reforming of glycerol and acetic acid to produce hydrogen. , 2015, , 249-266.		4
60	Membrane reactors for methane steam reforming (MSR). , 2015, , 31-59.		16
61	Water gas shift membrane reactors. , 2015, , 3-29.		14
62	Model biogas steam reforming in a thin Pd-supported membrane reactor to generate clean hydrogen for fuel cells. Journal of Power Sources, 2015, 273, 25-32.	7.8	71
63	Hydrogen Production for PEM Fuel Cells. Biofuels and Biorefineries, 2015, , 339-356.	0.5	2
64	Pure Hydrogen Production via Ethanol Steam Reforming Reaction over a Novel Pt-Co Based Catalyst in a Dense Pd-Ag Membrane Reactor (An Experimental Study). International Journal of Membrane Science and Technology, 2015, 2, 5-14.	0.2	6
65	Performance and Long-Term Stability of Pd/PSS and Pd/Al <sub>2</sub> O <sub>3</sub> Membranes for Hydrogen Separation. Membranes, 2014, 4, 143-162.	3.0	52
66	Methanol steam reforming in an Al <sub>2</sub> O <sub>3</sub> supported thin Pd-layer membrane reactor over Cu/ZnO/Al <sub>2</sub> O <sub>3</sub> catalyst. International Journal of Hydrogen Energy, 2014, 39, 18702-18710.	7.1	51
67	Methanol steam reforming for hydrogen generation via conventional and membrane reactors: A review. Renewable and Sustainable Energy Reviews, 2014, 29, 355-368.	16.4	388
68	Hydrogen production using inorganic membrane reactors. , 2014, , 283-316.		3
69	H <sub>2</sub> production in silica membrane reactor via methanol steam reforming: Modeling and HAZOP analysis. International Journal of Hydrogen Energy, 2013, 38, 10315-10326.	7.1	37
70	H <sub>2</sub> production by low pressure methanol steam reforming in a dense Pd-Ag membrane reactor in co-current flow configuration: Experimental and modeling analysis. International Journal of Hydrogen Energy, 2013, 38, 16685-16697.	7.1	60
71	Proton conducting membranes based on sulfonated PEEK-WC polymer for PEMFCs. International Journal of Hydrogen Energy, 2013, 38, 16642-16648.	7.1	8
72	Porous ceramic membranes for membrane reactors. , 2013, , 298-336.		17

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73	Electrochemical characterization of sulfonated PEEK-WC membranes for PEM fuel cells. International Journal of Hydrogen Energy, 2013, 38, 551-557.	7.1	13
74	Hydrogen production from bio-ethanol steam reforming reaction in a Pd/PSS membrane reactor. Catalysis Today, 2012, 193, 42-48.	4.4	69
75	Performance of a Pd/PSS membrane reactor to produce high purity hydrogen via WGS reaction. Catalysis Today, 2012, 193, 87-94.	4.4	45
76	Fabrication variables affecting the structure and properties of supported carbon molecular sieve membranes for hydrogen separation. Journal of Membrane Science, 2012, 415-416, 288-297.	8.2	60
77	Carbon molecular sieve membranes supported on non-modified ceramic tubes for hydrogen separation in membrane reactors. International Journal of Hydrogen Energy, 2012, 37, 13536-13544.	7.1	73
78	Sulfonated PEEK-based polymers in PEMFC and DMFC applications: A review. International Journal of Hydrogen Energy, 2012, 37, 15241-15255.	7.1	213
79	Hydrogen production from ethanol via inorganic membrane reactors technology: a review. Catalysis Science and Technology, 2011, 1, 366.	4.1	68
80	Hydrogen production for PEM fuel cell by gas phase reforming of glycerol as byproduct of bio-diesel. The use of a Pd-Ag membrane reactor at middle reaction temperature. International Journal of Hydrogen Energy, 2011, 36, 3827-3834.	7.1	63
81	Methane steam reforming in a Pd-Ag membrane reformer: An experimental study on reaction pressure influence at middle temperature. International Journal of Hydrogen Energy, 2011, 36, 1531-1539.	7.1	74
82	Ethanol steam reforming reaction in a porous stainless steel supported palladium membrane reactor. International Journal of Hydrogen Energy, 2011, 36, 2029-2037.	7.1	66
83	Membranes for hydrocarbon fuel processing and separation. , 2011, , 295-338.		3
84	Membrane technology for carbon dioxide (CO <sub>2</sub> ) capture in power plants. , 2011, , 113-159.		19
85	Inorganic membranes for pre-combustion carbon dioxide (CO <sub>2</sub> ) capture. , 2011, , 184-213.		6
86	The water-gas shift reaction: from conventional catalytic systems to Pd-based membrane reactors—a review. Asia-Pacific Journal of Chemical Engineering, 2010, 5, 111-137.	1.5	185
87	Production of hydrogen via glycerol steam reforming in a Pd-Ag membrane reactor over CoAl <sub>2</sub> O <sub>3</sub> catalyst. Asia-Pacific Journal of Chemical Engineering, 2010, 5, 138-145.	1.5	41
88	An experimental study on bio-ethanol steam reforming in a catalytic membrane reactor. Part II: Reaction pressure, sweep factor and WHSV effects. International Journal of Hydrogen Energy, 2010, 35, 3159-3164.	7.1	69
89	An experimental study on bio-ethanol steam reforming in a catalytic membrane reactor. Part I: Temperature and sweep-gas flow configuration effects. International Journal of Hydrogen Energy, 2010, 35, 3170-3177.	7.1	72
90	H <sub>2</sub> production by low pressure methane steam reforming in a Pd-Ag membrane reactor over a Ni-based catalyst: Experimental and modeling. International Journal of Hydrogen Energy, 2010, 35, 11514-11524.	7.1	90

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91	Sulfonation of PEEK-WC polymer via chloro-sulfonic acid for potential PEM fuel cell applications. International Journal of Hydrogen Energy, 2010, 35, 12688-12695.	7.1	39
92	Partial oxidation of ethanol in a membrane reactor for high purity hydrogen production. International Journal of Hydrogen Energy, 2010, 35, 12626-12634.	7.1	27
93	Water Gas Shift Reaction in Pd-Based Membrane Reactors. Advances in Science and Technology, 2010, 72, 99-104.	0.2	7
94	A Review on Patents for Hydrogen Production Using Membrane Reactors. Recent Patents on Chemical Engineering, 2010, 2, 207-222.	0.5	5
95	Oxidative steam reforming of ethanol over Ru-Al <sub>2</sub> O <sub>3</sub> catalyst in a dense Pd-Ag membrane reactor to produce hydrogen for PEM fuel cells. International Journal of Hydrogen Energy, 2009, 34, 8558-8565.	7.1	49
96	Thermo and electrochemical characterization of sulfonated PEEK-WC membranes and Krytox-Si-Nafion® composite membranes. Desalination, 2009, 235, 293-305.	8.2	19
97	Ti-Ni-Pd dense membranes—The effect of the gas mixtures on the hydrogen permeation. Journal of Membrane Science, 2008, 310, 44-50.	8.2	26
98	Methanol steam reforming in a dense Pd-Ag membrane reactor: The pressure and WHSV effects on CO-free H <sub>2</sub> production. Journal of Membrane Science, 2008, 323, 235-240.	8.2	55
99	CO-Free Hydrogen Production by Ethanol Steam Reforming in a Pd-Ag Membrane Reactor. Fuel Cells, 2008, 8, 62-68.	2.4	43
100	Acetic acid steam reforming in a Pd-Ag membrane reactor: The effect of the catalytic bed pattern. Journal of Membrane Science, 2008, 311, 46-52.	8.2	58
101	Hydrogen production by methanol steam reforming carried out in membrane reactor on Cu/Zn/Mg-based catalyst. Catalysis Today, 2008, 137, 17-22.	4.4	96
102	CO-free hydrogen production by steam reforming of acetic acid carried out in a Pd-Ag membrane reactor: The effect of co-current and counter-current mode. International Journal of Hydrogen Energy, 2008, 33, 4091-4096.	7.1	52
103	Methanol steam reforming reaction in a Pd-Ag membrane reactor for CO-free hydrogen production. International Journal of Hydrogen Energy, 2008, 33, 5583-5588.	7.1	75
104	Hydrogen Production by Ethanol Steam Reforming: Experimental Study of a Pd-Ag Membrane Reactor and Traditional Reactor Behaviour. International Journal of Chemical Reactor Engineering, 2008, 6, .	1.1	17
105	Methanol and ethanol steam reforming in membrane reactors: An experimental study. International Journal of Hydrogen Energy, 2007, 32, 1201-1210.	7.1	97
106	New Ti-Ni dense membranes with low palladium content. International Journal of Hydrogen Energy, 2007, 32, 4016-4022.	7.1	25
107	An experimental investigation on methanol steam reforming with oxygen addition in a flat Pd-Ag membrane reactor. International Journal of Hydrogen Energy, 2006, 31, 1615-1622.	7.1	62
108	The pressure effect on ethanol steam reforming in membrane reactor: experimental study. Desalination, 2006, 200, 671-672.	8.2	3

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109	Co-current and counter-current modes for methanol steam reforming membrane reactor: Experimental study. <i>Catalysis Today</i> , 2006, 118, 237-245.	4.4	64
110	Sulfonated PEEK-WC membranes for proton-exchange membrane fuel cell: Effect of the increasing level of sulfonation on electrochemical performances. <i>Journal of Membrane Science</i> , 2006, 281, 377-385.	8.2	47
111	High temperature proton exchange membrane fuel cell using a sulfonated membrane obtained via H <sub>2</sub> SO <sub>4</sub> treatment of PEEK-WC. <i>Catalysis Today</i> , 2005, 104, 213-218.	4.4	36