Adolfo Iulianelli

List of Publications by Year
in descending order

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	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
2	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
3	Sulfonated PEEK-based polymers in PEMFC and DMFC applications: A review. International Journal of Hydrogen Energy, 2012, 37, 15241-15255.	7.1	213
4	The waterâ€gas shift reaction: from conventional catalytic systems to Pdâ€based membrane reactorsâ€”a review. Asia-Pacific Journal of Chemical Engineering, 2010, 5, 111-137.	1.5	185
5	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
6	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
7	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
8	Methanol and ethanol steam reforming in membrane reactors: An experimental study. International Journal of Hydrogen Energy, 2007, 32, 1201-1210.	7.1	97
9	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
10	H2 production by low pressure methane steam reforming in a Pdâ€“Ag membrane reactor over a Ni-based catalyst: Experimental and modeling. International Journal of Hydrogen Energy, 2010, 35, 11514-11524.	7.1	90
11	Advances in Methanol Production and Utilization, with Particular Emphasis toward Hydrogen Generation via Membrane Reactor Technology. Membranes, 2018, 8, 98.	3.0	90
12	Methanol steam reforming reaction in a Pdâ€“Ag membrane reactor for CO-free hydrogen production. International Journal of Hydrogen Energy, 2008, 33, 5583-5588.	7.1	75
13	Methane steam reforming in a Pdâ€“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
14	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
15	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
16	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
17	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
18	Hydrogen production from bio-ethanol steam reforming reaction in a Pd/PSS membrane reactor. Catalysis Today, 2012, 193, 42-48.	4.4	69

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19	Hydrogen production from ethanol via inorganic membrane reactors technology: a review. Catalysis Science and Technology, 2011, 1, 366.	4.1	68
20	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
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	Co-current and counter-current modes for methanol steam reforming membrane reactor: Experimental study. Catalysis Today, 2006, 118, 237-245.	4.4	64
23	Hydrogen production for PEM fuel cell by gas phase reforming of glycerol as byproduct of bio-diesel. The use of a Pdâ€“Ag membrane reactor at middle reaction temperature. International Journal of Hydrogen Energy, 2011, 36, 3827-3834.	7.1	63
24	An experimental investigation on methanol steam reforming with oxygen addition in a flat Pdâ€“Ag membrane reactor. International Journal of Hydrogen Energy, 2006, 31, 1615-1622.	7.1	62
25	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
26	H2 production by low pressure methanol steam reforming in a dense Pdâ€“Ag membrane reactor in co-current flow configuration: Experimental and modeling analysis. International Journal of Hydrogen Energy, 2013, 38, 16685-16697.	7.1	60
27	Acetic acid steam reforming in a Pdâ€“Ag membrane reactor: The effect of the catalytic bed pattern. Journal of Membrane Science, 2008, 311, 46-52.	8.2	58
28	Methanol steam reforming in a dense Pdâ€“Ag membrane reactor: The pressure and WHSV effects on CO-free H2 production. Journal of Membrane Science, 2008, 323, 235-240.	8.2	55
29	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
30	Biopolymers for sustainable membranes in CO2 separation: a review. Fuel Processing Technology, 2021, 213, 106643.	7.2	55
31	CO-free hydrogen production by steam reforming of acetic acid carried out in a Pdâ€“Ag membrane reactor: The effect of co-current and counter-current mode. International Journal of Hydrogen Energy, 2008, 33, 4091-4096.	7.1	52
32	Performance and Long-Term Stability of Pd/PSS and Pd/Al2O3 Membranes for Hydrogen Separation. Membranes, 2014, 4, 143-162.	3.0	52
33	Methanol steam reforming in an Al 2 O 3 supported thin Pd-layer membrane reactor over Cu/ZnO/Al 2 O 3 catalyst. International Journal of Hydrogen Energy, 2014, 39, 18702-18710.	7.1	51
34	The oncoming energy vector: Hydrogen produced in Pd-composite membrane reactor via bioethanol reforming over Ni/CeO 2 catalyst. Catalysis Today, 2016, 259, 368-375.	4.4	50
35	Oxidative steam reforming of ethanol over Ruâ€“Al2O3 catalyst in a dense Pdâ€“Ag membrane reactor to produce hydrogen for PEM fuel cells. International Journal of Hydrogen Energy, 2009, 34, 8558-8565.	7.1	49
36	Sulfonated PEEK-WC membranes for proton-exchange membrane fuel cell: Effect of the increasing level of sulfonation on electrochemical performances. Journal of Membrane Science, 2006, 281, 377-385.	8.2	47

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37	Performance of a Pd/PSS membrane reactor to produce high purity hydrogen via WGS reaction. Catalysis Today, 2012, 193, 87-94.	4.4	45
38	COâ€Free Hydrogen Production by Ethanol Steam Reforming in a Pdâ€“Ag Membrane Reactor. Fuel Cells, 2008, 8, 62-68.	2.4	43
39	Production of hydrogen via glycerol steam reforming in a Pdâ€Ag membrane reactor over Coâ€Al₂O₃ catalyst. Asia-Pacific Journal of Chemical Engineering, 2010, 5, 138-145.	1.5	41
40	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
41	H2 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
42	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
43	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
44	High temperature proton exchange membrane fuel cell using a sulfonated membrane obtained via H2SO4 treatment of PEEK-WC. Catalysis Today, 2005, 104, 213-218.	4.4	36
45	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
46	Recent Progresses in Application of Membrane Bioreactors in Production of Biohydrogen. Membranes, 2019, 9, 100.	3.0	33
47	Supported Pd-Au Membrane Reactor for Hydrogen Production: Membrane Preparation, Characterization and Testing. Molecules, 2016, 21, 581.	3.8	29
48	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
49	Tiâ€“Niâ€“Pd dense membranesâ€”The effect of the gas mixtures on the hydrogen permeation. Journal of Membrane Science, 2008, 310, 44-50.	8.2	26
50	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
51	New Tiâ€“Ni dense membranes with low palladium content. International Journal of Hydrogen Energy, 2007, 32, 4016-4022.	7.1	25
52	Membrane technologies for space engineering. Journal of Membrane Science, 2021, 626, 119177.	8.2	25
53	New PEEK-WC and PLA membranes for H2 separation. International Journal of Hydrogen Energy, 2017, 42, 22138-22148.	7.1	24
54	CO2 utilization in methane reforming using La-doped SBA-16 catalysts prepared via pH adjustment method. Fuel, 2022, 322, 124248.	6.4	23

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55	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
56	A supported Pd-Cu/Al2O3 membrane from solvated metal atoms for hydrogen separation/purification. Fuel Processing Technology, 2019, 195, 106141.	7.2	22
57	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
58	Thermo and electrochemical characterization of sulfonated PEEKâ€“WC membranes and Krytox-Si-NafionÂ® composite membranes. Desalination, 2009, 235, 293-305.	8.2	19
59	Membrane technology for carbon dioxide (CO 2) capture in power plants. , 2011, , 113-159.		19
60	Progress in Methanol Steam Reforming Modelling via Membrane Reactors Technology. Membranes, 2018, 8, 65.	3.0	19
61	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
62	PLA Easy Fil â€“ Whiteâ€based membranes for CO₂ separation. , 2019, 9, 360-369.		18
63	Ethanol From Biomass. , 2019, , 25-59.		18
64	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
65	Experimental evaluation of graphene oxide/TiO2-alumina nanocomposite membranes performance for hydrogen separation. International Journal of Hydrogen Energy, 2020, 45, 7479-7487.	7.1	18
66	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
67	Porous ceramic membranes for membrane reactors. , 2013, , 298-336.		17
68	Pure Hydrogen Production in Membrane Reactor with Mixed Reforming Reaction by Utilizing Waste Gas: A Case Study. Processes, 2016, 4, 33.	2.8	17
69	Membrane reactors for methane steam reforming (MSR). , 2015, , 31-59.		16
70	Modeling and optimization of a membrane gas separation based bioreactor plant for biohydrogen production by CFDâ€“RSM combined method. Journal of Water Process Engineering, 2021, 43, 102288.	5.6	16
71	Water gas shift membrane reactors. , 2015, , 3-29.		14
72	Electrochemical characterization of sulfonated PEEK-WC membranes for PEM fuel cells. International Journal of Hydrogen Energy, 2013, 38, 551-557.	7.1	13

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73	Hydrogen permeation and separation characteristics of a thin Pd-Au/Al2O3 membrane: The effect of the intermediate layer absence. Catalysis Today, 2019, 330, 32-38.	4.4	13
74	Progress in Modeling of Silica-Based Membranes and Membrane Reactors for Hydrogen Production and Purification. ChemEngineering, 2019, 3, 2.	2.4	13
75	Hydrogen production by silica membrane reactor during dehydrogenation of methylcyclohexane: CFD analysis. International Journal of Hydrogen Energy, 2021, 46, 19768-19777.	7.1	13
76	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
77	Novel bio-polymer based membranes for CO2/CH4 separation. International Journal of Greenhouse Gas Control, 2022, 117, 103657.	4.6	11
78	Hydrogen Production. , 2018, , 215-241.		10
79	An On-Board Pure H2 Supply System Based on A Membrane Reactor for A Fuel Cell Vehicle: A Theoretical Study. Membranes, 2020, 10, 159.	3.0	10
80	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
81	Hydrogen Refueling Stations: Safety and Sustainability. General Chemistry, 2020, 6, 190029-190029.	0.6	10
82	Study on the Separation of H2 from CO2 Using a ZIF-8 Membrane by Molecular Simulation and Maxwell-Stefan Model. Molecules, 2019, 24, 4350.	3.8	9
83	Proton conducting membranes based on sulfonated PEEK-WC polymer for PEMFCs. International Journal of Hydrogen Energy, 2013, 38, 16642-16648.	7.1	8
84	Water Gas Shift Reaction in Pd-Based Membrane Reactors. Advances in Science and Technology, 2010, 72, 99-104.	0.2	7
85	Single-stage hydrogen production and separation from fossil fuels using micro- and macromembrane reactors. , 2015, , 445-468.		7
86	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
87	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
88	Inorganic membranes for pre-combustion carbon dioxide (CO 2) capture. , 2011, , 184-213.		6
89	Steam Reforming, Preferential Oxidation, and Autothermal Reforming of Ethanol for Hydrogen Production in Membrane Reactors. , 2019, , 193-213.		6
90	Advances on Inorganic Membrane Reactors for Production of Hydrogen. , 2018, , 1-11.		6

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91	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
92	A Review on Patents for Hydrogen Production Using Membrane Reactors. Recent Patents on Chemical Engineering, 2010, 2, 207-222.	0.5	5
93	Membrane reactors for the conversion of methanol and ethanol to hydrogen. , 2015, , 187-208.		4
94	Membrane reactors for steam reforming of glycerol and acetic acid to produce hydrogen. , 2015, , 249-266.		4
95	H 2 production from bioalcohols and biomethane steam reforming in membrane reactors. , 2017, , 321-344.		4
96	The pressure effect on ethanol steam reforming in membrane reactor: experimental study. Desalination, 2006, 200, 671-672.	8.2	3
97	Membranes for hydrocarbon fuel processing and separation. , 2011, , 295-338.		3
98	Hydrogen production using inorganic membrane reactors. , 2014, , 283-316.		3
99	Theoretical Evaluation of Graphene Membrane Performance for Hydrogen Separation Using Molecular Dynamic Simulation. Membranes, 2019, 9, 110.	3.0	3
100	Development of membrane reactor technology for H2 production in reforming process for low-temperature fuel cells. , 2020, , 287-305.		3
101	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
102	Advances on Inorganic Membrane Reactors for Production of Hydrogen. , 2019, , 935-945.		3
103	Hydrogen Production for PEM Fuel Cells. Biofuels and Biorefineries, 2015, , 339-356.	0.5	2
104	CFD Development of a Silica Membrane Reactor during HI Decomposition Reaction Coupling with CO2 Methanation at Sulfurâ€“Iodine Cycle. Nanomaterials, 2022, 12, 824.	4.1	2
105	Hybrid and Inorganic Membranes for CO2/H2 Separation Process. , 2018, , 289-305.		1
106	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
107	Microporous Carbon Membrane Reactors. , 2019, , 59-75.		0
108	Green hydrogen production from biocompounds through membrane engineering. , 2020, , 21-41.		0

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109	Fuel and hydrogen treatment and production by membranes. , 2020, , 91-108.		0
110	Enhanced carbon dioxide capture by membrane contactors in presence of nanofluids. , 2022, , 399-411.		0
111	Hydrogen and renewable energy: the role of membrane reactor technology. , 2022, , 149-174.		0