And Robert J Farrauto

List of Publications by Year
in descending order

41 papers	3,053 citations	201674 27 h-index	302126 39 g-index
42 all docs	42 docs citations	42 times ranked	2797 citing authors

#	Article	IF	Citations
1	The application of monoliths for gas phase catalytic reactions. Chemical Engineering Journal, 2001, 82, 149-156.	12.7	354
2	Dual function materials for CO 2 capture and conversion using renewable H 2. Applied Catalysis B: Environmental, 2015, 168-169, 370-376.	20.2	227
3	Low-Temperature Oxidation of Methane. Science, 2012, 337, 659-660.	12.6	164
4	CO 2 utilization with a novel dual function material (DFM) for capture and catalytic conversion to synthetic natural gas: An update. Journal of CO2 Utilization, 2016, 15, 65-71.	6.8	159
5	Deactivation of Pt/CeO2 water-gas shift catalysts due to shutdown/startup modes for fuel cell applications. Applied Catalysis B: Environmental, 2005, 56, 69-75.	20.2	157
6	Precious Metal Catalysts Supported on Ceramic and Metal Monolithic Structures for the Hydrogen Economy. Catalysis Reviews - Science and Engineering, 2007, 49, 141-196.	12.9	146
7	Gasoline automobile catalysis and its historical journey to cleaner air. Nature Catalysis, 2019, 2, 603-613.	34.4	146
8	In-situ DRIFTS study of two-step CO2 capture and catalytic methanation over Ru,â€œNa2Oâ€ÍAl2O3 Dual Functional Material. Applied Surface Science, 2019, 479, 25-30.	6.1	135
9	Catalysts and adsorbents for CO2 capture and conversion with dual function materials: Limitations of Ni-containing DFMs for flue gas applications. Journal of CO2 Utilization, 2019, 31, 143-151.	6.8	117
10	Bimetallic catalysts for CO2 capture and hydrogenation at simulated flue gas conditions. Chemical Engineering Journal, 2019, 375, 121953.	12.7	114
11	Kinetics of CO2 methanation over Ru/Î³-Al2O3 and implications for renewable energy storage applications. Journal of CO2 Utilization, 2015, 12, 27-33.	6.8	108
12	Adsorption and Methanation of Flue Gas CO₂ with Dual Functional Catalytic Materials: A Parametric Study. Industrial & Engineering Chemistry Research, 2016, 55, 6768-6776.	3.7	102
13	Parametric, cyclic aging and characterization studies for CO2 capture from flue gas and catalytic conversion to synthetic natural gas using a dual functional material (DFM). Journal of CO2 Utilization, 2018, 27, 390-397.	6.8	78
14	The Role of Ruthenium in CO2 Capture and Catalytic Conversion to Fuel by Dual Function Materials (DFM). Catalysts, 2017, 7, 88.	3.5	75
15	Feasibility Study of Combining Direct Air Capture of CO2 and Methanation at Isothermal Conditions with Dual Function Materials. Applied Catalysis B: Environmental, 2021, 282, 119416.	20.2	68
16	Dispersed Calcium Oxide as a Reversible and Efficient CO₂â"Sorbent at Intermediate Temperatures. Industrial & Engineering Chemistry Research, 2011, 50, 4042-4049.	3.7	66
17	Structure dependence of Nb2O5-X supported manganese oxide for catalytic oxidation of propane: Enhanced oxidation activity for MnOx on a low surface area Nb2O5-X. Applied Catalysis B: Environmental, 2019, 244, 438-447.	20.2	64
18	Mechanistic assessment of dual function materials, composed of Ru-Ni, Na2O/Al2O3 and Pt-Ni, Na2O/Al2O3, for CO2 capture and methanation by in-situ DRIFTS. Applied Surface Science, 2020, 533, 147469.	6.1	61

#	Article	IF	Citations
19	Ru-Ba synergistic effect in dual functioning materials for cyclic CO2 capture and methanation. Applied Catalysis B: Environmental, 2021, 283, 119654.	20.2	54
20	Biogas reforming for syngas production: The effect of methyl chloride. Applied Catalysis B: Environmental, 2014, 144, 353-361.	20.2	42
21	Steam reforming of sulfur-containing dodecane on a Rhâ€“Pt catalyst: Influence of process parameters on catalyst stability and coke structure. Applied Catalysis B: Environmental, 2014, 160-161, 525-533.	20.2	42
22	Part II: Oxidative Thermal Aging of Pd/Al2O3 and Pd/CexOy-ZrO2 in Automotive Three Way Catalysts: The Effects of Fuel Shutoff and Attempted Fuel Rich Regeneration. Catalysts, 2015, 5, 1797-1814.	3.5	38
23	Selective CO oxidation over a commercial PROX monolith catalyst for hydrogen fuel cell applications. International Journal of Hydrogen Energy, 2012, 37, 10874-10880.	7.1	36
24	Part I: A Comparative Thermal Aging Study on the Regenerability of Rh/Al2O3 and Rh/CexOy-ZrO2 as Model Catalysts for Automotive Three Way Catalysts. Catalysts, 2015, 5, 1770-1796.	3.5	36
25	Kinetic and process study for ethanol reforming using a Rh/Pt washcoated monolith catalyst. Applied Catalysis B: Environmental, 2009, 89, 58-64.	20.2	33
26	Steam reforming of ethanol/gasoline mixtures: Deactivation, regeneration and stable performance. Applied Catalysis B: Environmental, 2011, 106, 295-303.	20.2	33
27	Dual function materials (Ru+Na2O/Al2O3) for direct air capture of CO2 and in situ catalytic methanation: The impact of realistic ambient conditions. Applied Catalysis B: Environmental, 2022, 307, 120990.	20.2	31
28	Steam reforming of ethanol on Rh/SiCeO2 washcoated monolith catalyst: Stable catalyst performance. International Journal of Hydrogen Energy, 2018, 43, 115-126.	7.1	27
29	Enhanced propane and carbon monoxide oxidation activity by structural interactions of CeO2 with MnOx/Nb2O5-x catalysts. Applied Catalysis B: Environmental, 2020, 267, 118363.	20.2	26
30	New catalysts and reactor designs for the hydrogen economy. Chemical Engineering Journal, 2014, 238, 172-177.	12.7	25
31	A techno-economic evaluation of the hydrogen production for energy generation using an ethanol fuel processor. International Journal of Hydrogen Energy, 2019, 44, 21205-21219.	7.1	24
32	Aging study of low Ru loading dual function materials (DFM) for combined power plant effluent CO2 capture and methanation. Applied Catalysis B: Environmental, 2022, 310, 121294.	20.2	21
33	Copper oxide catalyst supported on niobium oxide for CO oxidation at low temperatures. Catalysis Communications, 2017, 97, 42-46.	3.3	16
34	Moving from discovery to real applications for your catalyst. Applied Catalysis A: General, 2016, 527, 182-189.	4.3	15
35	Extended aging of Ru-Ni, Na2O/Al2O3 dual function materials (DFM) for combined capture and subsequent catalytic methanation of CO2 from power plant flue gas. Fuel, 2022, 328, 125283.	6.4	13
36	In situ regeneration of Rhodium in three-way catalysts by aqueous ethanol injection for sustained methane emissions abatement. Catalysis Communications, 2017, 95, 63-66.	3.3	8

#	Article	IF	Citations
37	Oxygen storage and redox properties of Nb-doped ZrO 2 -CeO 2 -Y 2 O 3 solid solutions for three-way automobile exhaust catalytic converters. Catalysis Today, 2016, 277, 227-233.	4.4	6
38	Catalysts Promoted with Niobium Oxide for Air Pollution Abatement. Catalysts, 2017, 7, 144.	3.5	6
39	Enhancing the CO₂ Adsorption Capacity of Î³-Al₂O₃ Supported Alkali and Alkaline-Earth Metals: Impacts of Dual Function Material (DFM) Preparation Methods. Industrial & Engineering Chemistry Research, 2022, 61, 10474-10482.	3.7	6
40	Catalytic Abatement of Volatile Organic Compounds: Some Industrial Applications. , 2014, , 173-197.		0
41	8. CO2 capture and catalytic conversion using solids. , 2019, , 127-136.		0