Robert A Dagle

List of Publications by Year
in descending order

48 papers	2,869 citations	236925 25 h-index	206112 48 g-index
52 all docs	52 docs citations	52 times ranked	3450 citing authors

#	Article	IF	Citations
1	Methanol Steam Reforming for Hydrogen Production. Chemical Reviews, 2007, 107, 3992-4021.	47.7	919
2	Steam reforming of methanol over highly active Pd/ZnO catalyst. Catalysis Today, 2002, 77, 79-88.	4.4	245
3	Selective CO methanation catalysts for fuel processing applications. Applied Catalysis A: General, 2007, 326, 213-218.	4.3	142
4	Development of a soldier-portable fuel cell power system. Journal of Power Sources, 2002, 108, 28-34.	7.8	106
5	Highly active and stable MgAl2O4-supported Rh and Ir catalysts for methane steam reforming: A combined experimental and theoretical study. Journal of Catalysis, 2014, 316, 11-23.	6.2	104
6	Methanol steam reforming over Pd/ZnO: Catalyst preparation and pretreatment studies. Fuel Processing Technology, 2003, 83, 193-201.	7.2	93
7	Ethanol as a Renewable Building Block for Fuels and Chemicals. Industrial & Engineering Chemistry Research, 2020, 59, 4843-4853.	3.7	81
8	Effect of the SiO2 support on the catalytic performance of Ag/ZrO2/SiO2 catalysts for the single-bed production of butadiene from ethanol. Applied Catalysis B: Environmental, 2018, 236, 576-587.	20.2	70
9	Synthesis of methanol and dimethyl ether from syngas over Pd/ZnO/Al2O3 catalysts. Catalysis Science and Technology, 2012, 2, 2116.	4.1	64
10	Sorption-enhanced synthetic natural gas (SNG) production from syngas: A novel process combining CO methanation, water-gas shift, and CO2 capture. Applied Catalysis B: Environmental, 2014, 144, 223-232.	20.2	59
11	Syngas conversion to gasoline-range hydrocarbons over Pd/ZnO/Al2O3 and ZSM-5 composite catalyst system. Fuel Processing Technology, 2014, 123, 65-74.	7.2	53
12	The Effects of PdZn Crystallite Size on Methanol Steam Reforming. Topics in Catalysis, 2007, 46, 358-362.	2.8	51
13	Integrated process for the catalytic conversion of biomass-derived syngas into transportation fuels. Green Chemistry, 2016, 18, 1880-1891.	9.0	48
14	Engineered SMR catalysts based on hydrothermally stable, porous, ceramic supports for microchannel reactors. Catalysis Today, 2007, 120, 54-62.	4.4	46
15	Steam reforming of hydrocarbons from biomass-derived syngas over MgAl2O4-supported transition metals and bimetallic IrNi catalysts. Applied Catalysis B: Environmental, 2016, 184, 142-152.	20.2	46
16	Steam Reforming of Ethylene Glycol over MgAl₂O₄ Supported Rh, Ni, and Co Catalysts. ACS Catalysis, 2016, 6, 315-325.	11.2	45
17	Steam reforming of fast pyrolysis-derived aqueous phase oxygenates over Co, Ni, and Rh metals supported on MgAl2O4. Catalysis Today, 2016, 269, 166-174.	4.4	43
18	Oligomerization of ethanol-derived propene and isobutene mixtures to transportation fuels: catalyst and process considerations. Catalysis Science and Technology, 2019, 9, 1117-1131.	4.1	43

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19	Condensed-phase low temperature heterogeneous hydrogenation of CO₂ to methanol. Catalysis Science and Technology, 2018, 8, 5098-5103.	4.1	40
20	Comparative Investigation of Benzene Steam Reforming over Spinel Supported Rh and Ir Catalysts. ACS Catalysis, 2013, 3, 1133-1143.	11.2	39
21	Comparative technoâ€economic analysis and process design for indirect liquefaction pathways to distillateâ€range fuels via biomassâ€derived oxygenated intermediates upgrading. Biofuels, Bioproducts and Biorefining, 2017, 11, 41-66.	3.7	39
22	Microwave-driven heterogeneous catalysis for activation of dinitrogen to ammonia under atmospheric pressure. Chemical Engineering Journal, 2020, 397, 125388.	12.7	39
23	Molecular Active Sites in Heterogeneous Irâ€“La/C-Catalyzed Carbonylation of Methanol to Acetates. Journal of Physical Chemistry Letters, 2014, 5, 566-572.	4.6	38
24	Single-Step Conversion of Ethanol to n-Butene over Ag-ZrO₂/SiO₂ Catalysts. ACS Catalysis, 2020, 10, 10602-10613.	11.2	34
25	Steam Reforming of Acetic Acid over Co-Supported Catalysts: Coupling Ketonization for Greater Stability. ACS Sustainable Chemistry and Engineering, 2017, 5, 9136-9149.	6.7	25
26	Strategies To Valorize the Hydrothermal Liquefaction-Derived Aqueous Phase into Fuels and Chemicals. ACS Sustainable Chemistry and Engineering, 2019, 7, 19889-19901.	6.7	25
27	Regeneration of Sulfur Deactivated Ni-Based Biomass Syngas Cleaning Catalysts. Industrial & Engineering Chemistry Research, 2010, 49, 10144-10148.	3.7	24
28	Catalytic decomposition of methane into hydrogen and high-value carbons: combined experimental and DFT computational study. Catalysis Science and Technology, 2021, 11, 4911-4921.	4.1	24
29	Single-step syngas-to-distillates (S2D) process based on biomass-derived syngas â€“ A techno-economic analysis. Bioresource Technology, 2012, 117, 341-351.	9.6	23
30	Conversion of syngas-derived C2+ mixed oxygenates to C3â€“C5 olefins over ZnxZryOz mixed oxide catalysts. Catalysis Science and Technology, 2016, 6, 2325-2336.	4.1	23
31	Methane and Ethane Steam Reforming over MgAl2O4-Supported Rh and Ir Catalysts: Catalytic Implications for Natural Gas Reforming Application. Catalysts, 2019, 9, 801.	3.5	23
32	Structure sensitivity and its effect on methane turnover and carbon co-product selectivity in thermocatalytic decomposition of methane over supported Ni catalysts. Applied Catalysis A: General, 2021, 611, 117967.	4.3	23
33	Influence of Ag metal dispersion on the thermal conversion of ethanol to butadiene over Ag-ZrO2/SiO2 catalysts. Journal of Catalysis, 2020, 386, 30-38.	6.2	22
34	Integrated Capture and Conversion of CO₂ to Methane Using a Waterâ€lean, Postâ€Combustion CO₂ Capture Solvent. ChemSusChem, 2021, 14, 4812-4819.	6.8	20
35	Production and fuel properties of iso-olefins with controlled molecular structure and obtained from butene oligomerization. Fuel, 2020, 277, 118147.	6.4	18
36	Microwave-assisted ammonia synthesis over Ru/MgO catalysts at ambient pressure. Catalysis Today, 2021, 365, 103-110.	4.4	18

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37	Carbon dioxide conversion to valuable chemical products over composite catalytic systems. Journal of Energy Chemistry, 2013, 22, 368-374.	12.9	17
38	Multi-scale simulation of reaction, transport and deactivation in a SBA-16 supported catalyst for the conversion of ethanol to butadiene. Catalysis Today, 2019, 338, 141-151.	4.4	17
39	Methane Catalytic Pyrolysis by Microwave and Thermal Heating over Carbon Nanotube-Supported Catalysts: Productivity, Kinetics, and Energy Efficiency. Industrial & Engineering Chemistry Research, 2022, 61, 5080-5092.	3.7	13
40	Warm Cleanup of Coal-Derived Syngas: Multicontaminant Removal Process Demonstration. Energy & Fuels, 2017, 31, 2448-2456.	5.1	12
41	Understanding the Deactivation of Agâ^'ZrO₂/SiO₂ Catalysts for the Singleâ€step Conversion of Ethanol to Butenes. ChemCatChem, 2021, 13, 999-1008.	3.7	11
42	Progress toward Biomass and Coal-Derived Syngas Warm Cleanup: Proof-of-Concept Process Demonstration of Multicontaminant Removal for Biomass Application. Industrial & Engineering Chemistry Research, 2013, 52, 8125-8138.	3.7	9
43	Cleanup and Conversion of Biomass Liquefaction Aqueous Phase to C3â€"C5 Olefins over ZnxZryOz Catalyst. Catalysts, 2019, 9, 923.	3.5	8
44	Production of Gaseous Olefins from Syngas over a Cobalt-HZSM-5 Catalyst. Catalysis Letters, 2021, 151, 526-537.	2.6	8
45	Direct Conversion of Syngas-to-Hydrocarbons over Higher Alcohols Synthesis Catalysts Mixed with HZSM-5. Industrial & Engineering Chemistry Research, 2014, 53, 13928-13934.	3.7	7
46	Singleâ€step Conversion of Methyl Ethyl Ketone to Olefins over Zn x Zr y O z Catalysts in Water. ChemCatChem, 2019, 11, 3393-3400.	3.7	7
47	In situ S/TEM Reactions of Ag/ZrO₂/SBA-16 Catalysts for Single-Step Conversion of Ethanol to Butadiene. Microscopy and Microanalysis, 2019, 25, 1460-1461.	0.4	4
48	Development of a Micropyrolyzer for Enhanced Isotope Ratio Measurement. Industrial & Engineering Chemistry Research, 2008, 47, 8625-8630.	3.7	1