Luke M Neal

List of Publications by Year
in descending order

35 papers	1,887 citations	304743 22 h-index	377865 34 g-index
36 all docs	36 docs citations	36 times ranked	1629 citing authors

#	Article	IF	Citations
1	Recent Advances in Intensified Ethylene Productionâ€"A Review. ACS Catalysis, 2019, 9, 8592-8621.	11.2	227
2	Dynamic Methane Partial Oxidation Using a Fe₂O₃@La_{0.8}Sr_{0.2}FeO_{3-Î´} Coreâ€"Shell Redox Catalyst in the Absence of Gaseous Oxygen. ACS Catalysis, 2014, 4, 3560-3569.	11.2	163
3	Perovskites as Geo-inspired Oxygen Storage Materials for Chemical Looping and Three-Way Catalysis: A Perspective. ACS Catalysis, 2018, 8, 8213-8236.	11.2	152
4	Effect of support on redox stability of iron oxide for chemical looping conversion of methane. Applied Catalysis B: Environmental, 2015, 164, 371-379.	20.2	137
5	Steam reforming of methanol using Cu-ZnO catalysts supported on nanoparticle alumina. Applied Catalysis B: Environmental, 2008, 84, 631-642.	20.2	126
6	Effect of Promoters on Manganese-Containing Mixed Metal Oxides for Oxidative Dehydrogenation of Ethane via a Cyclic Redox Scheme. ACS Catalysis, 2017, 7, 5163-5173.	11.2	96
7	Li-Promoted La_xSr_{2â€"x}FeO_{4â^'Î´} Coreâ€"Shell Redox Catalysts for Oxidative Dehydrogenation of Ethane under a Cyclic Redox Scheme. ACS Catalysis, 2016, 6, 7293-7302.	11.2	95
8	Effect of core and shell compositions on MeO @La Sr1â^'FeO3 coreâ€"shell redox catalysts for chemical looping reforming of methane. Applied Energy, 2015, 157, 391-398.	10.1	94
9	Oxidative Dehydrogenation of Ethane: A Chemical Looping Approach. Energy Technology, 2016, 4, 1200-1208.	3.8	88
10	Oxidative dehydrogenation of ethane under a cyclic redox scheme â€" Process simulations and analysis. Energy, 2017, 119, 1024-1035.	8.8	62
11	Parahydrogen-Induced Polarization by Pairwise Replacement Catalysis on Pt and Ir Nanoparticles. Journal of the American Chemical Society, 2015, 137, 1938-1946.	13.7	56
12	Manganese silicate based redox catalysts for greener ethylene production via chemical looping â€" oxidative dehydrogenation of ethane. Applied Catalysis B: Environmental, 2018, 232, 77-85.	20.2	55
13	Effects of Sodium and Tungsten Promoters on Mg₆MnO₈-Based Coreâ€"Shell Redox Catalysts for Chemical Loopingâ€"Oxidative Dehydrogenation of Ethane. ACS Catalysis, 2019, 9, 3174-3186.	11.2	52
14	Mixed iron-manganese oxides as redox catalysts for chemical loopingâ€"oxidative dehydrogenation of ethane with tailorable heat of reactions. Applied Catalysis B: Environmental, 2019, 257, 117885.	20.2	50
15	Characterization of ZrO2-promoted Cu/ZnO/nano-Al2O3 methanol steam reforming catalysts. Applied Surface Science, 2010, 256, 7345-7353.	6.1	44
16	Intensification of Ethylene Production from Naphtha via a Redox Oxy-Cracking Scheme: Process Simulations and Analysis. Engineering, 2018, 4, 714-721.	6.7	43
17	Perovskite oxides for redox oxidative cracking of n-hexane under a cyclic redox scheme. Applied Catalysis B: Environmental, 2019, 246, 30-40.	20.2	43
18	Intensified Ethylene Production via Chemical Looping through an Exergetically Efficient Redox Scheme. IScience, 2019, 19, 894-904.	4.1	38

#	Article	IF	Citations
19	A tailored multi-functional catalyst for ultra-efficient styrene production under a cyclic redox scheme. Nature Communications, 2021, 12, 1329.	12.8	35
20	Câ€“H activation and Câ€“C coupling of 4-methylpyridine using palladium supported on nanoparticle alumina. Journal of Molecular Catalysis A, 2008, 284, 141-148.	4.8	33
21	Parahydrogen enhanced NMR reveals correlations in selective hydrogenation of triple bonds over supported Pt catalyst. Physical Chemistry Chemical Physics, 2015, 17, 26121-26129.	2.8	29
22	Sodium tungstate-promoted CaMnO3 as an effective, phase-transition redox catalyst for redox oxidative cracking of cyclohexane. Journal of Catalysis, 2020, 385, 213-223.	6.2	26
23	Characterization of palladium oxide catalysts supported on nanoparticle metal oxides for the oxidative coupling of 4-methylpyridine. Journal of Molecular Catalysis A, 2011, 335, 210-221.	4.8	24
24	Characterization of alumina-supported palladium oxide catalysts used in the oxidative coupling of 4-methylpyridine. Journal of Molecular Catalysis A, 2010, 325, 25-35.	4.8	17
25	Zeolite-assisted core-shell redox catalysts for efficient light olefin production via cyclohexane redox oxidative cracking. Chemical Engineering Journal, 2021, 409, 128192.	12.7	17
26	The influence of ZnO, CeO2 and ZrO2 on nanoparticle-oxide-supported palladium oxide catalysts for the oxidative coupling of 4-methylpyridine. Journal of Molecular Catalysis A, 2011, 341, 42-50.	4.8	14
27	LaNi_xFe_{1â€“x}O_{3â^Î´} as a Robust Redox Catalyst for CO₂ Splitting and Methane Partial Oxidation. Energy & Fuels, 2021, 35, 13921-13929.	5.1	14
28	Ethane to liquids via a chemical looping approach â€“ Redox catalyst demonstration and process analysis. Chemical Engineering Journal, 2021, 417, 128886.	12.7	13
29	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
30	Effects of nanoparticle and porous metal oxide supports on the activity of palladium catalysts in the oxidative coupling of 4-methylpyridine. Journal of Molecular Catalysis A, 2009, 307, 29-36.	4.8	12
31	Modularâ€scale ethane to liquids via chemical looping oxidative dehydrogenation: Redox catalyst performance and process analysis. Journal of Advanced Manufacturing and Processing, 2019, 1, .	2.4	8
32	Autothermal Chemical Looping Oxidative Dehydrogenation of Ethane: Redox Catalyst Performance, Longevity, and Process Analysis. Energy & Fuels, 2022, 36, 9736-9744.	5.1	8
33	Oxygen Generation from Carbon Dioxide for Advanced Life Support. ECS Transactions, 2007, 11, 173-179.	0.5	1
34	Effect of Liquid Barrier Layer on Open-Cathode Direct Methanol Fuel Cell Systems. , 2011, , .		1
35	Concurrent CO₂ Control and O₂ Generation for Space Suits and Other Advanced Life Support: A Feasibility Study. , 0, , .		0