

# Juntian Niu

## List of Publications by Year in descending order

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Version: 2024-02-01

40  
papers

1,227  
citations

331670

21  
h-index

361022

35  
g-index

40  
all docs

40  
docs citations

40  
times ranked

995  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dry (CO <sub>2</sub> ) reforming of methane over Pt catalysts studied by DFT and kinetic modeling. Applied Surface Science, 2016, 376, 79-90.	6.1	113
2	Effect of oxide additives on the hydrotalcite derived Ni catalysts for CO <sub>2</sub> reforming of methane. Chemical Engineering Journal, 2019, 377, 119763.	12.7	97
3	Methane dry (CO <sub>2</sub> ) reforming to syngas (H <sub>2</sub> /CO) in catalytic process: From experimental study and DFT calculations. International Journal of Hydrogen Energy, 2020, 45, 30267-30287.	7.1	88
4	New mechanism insights into methane steam reforming on Pt/Ni from DFT and experimental kinetic study. Fuel, 2020, 266, 117143.	6.4	86
5	Unraveling Enhanced Activity, Selectivity, and Coke Resistance of Pt@Ni Bimetallic Clusters in Dry Reforming. ACS Catalysis, 2021, 11, 2398-2411.	11.2	83
6	Comprehensive review of Cu-based CO <sub>2</sub> hydrogenation to CH <sub>3</sub> OH: Insights from experimental work and theoretical analysis. International Journal of Hydrogen Energy, 2022, 47, 9183-9200.	7.1	78
7	Effects of trapezoidal bluff bodies on blow out limit of methane/air combustion in a micro-channel. Applied Thermal Engineering, 2016, 95, 454-461.	6.0	56
8	Effect of Pt addition on resistance to carbon formation of Ni catalysts in methane dehydrogenation over Ni-Pt bimetallic surfaces: A density functional theory study. Molecular Catalysis, 2017, 434, 206-218.	2.0	48
9	A comprehensive DFT study of CO <sub>2</sub> catalytic conversion by H <sub>2</sub> over Pt-doped Ni catalysts. International Journal of Hydrogen Energy, 2019, 44, 819-834.	7.1	47
10	Insight into the effect of facet-dependent surface and oxygen vacancies of CeO <sub>2</sub> for Hg removal: From theoretical and experimental studies. Journal of Hazardous Materials, 2020, 397, 122646.	12.4	40
11	The role of S in the Co-N-S-C catalysis system towards the ORR for proton exchange membrane fuel cells. Applied Surface Science, 2021, 540, 148325.	6.1	39
12	Understanding the mechanism of CO <sub>2</sub> reforming of methane to syngas on Ni@Pt surface compared with Ni(111) and Pt(111). Applied Surface Science, 2020, 513, 145840.	6.1	37
13	A density functional theory study of CO <sub>2</sub> hydrogenation to methanol over Pd/TiO <sub>2</sub> catalyst: The role of interfacial site. International Journal of Hydrogen Energy, 2020, 45, 6328-6340.	7.1	35
14	Understanding effects of Ni particle size on steam methane reforming activity by combined experimental and theoretical analysis. Catalysis Today, 2020, 355, 139-147.	4.4	32
15	Highly active and stable Ni/perovskite catalysts in steam methane reforming for hydrogen production. Sustainable Energy and Fuels, 2021, 5, 1845-1856.	4.9	30
16	Mechanisms insight into oxygen reduction reaction on sulfur-doped Fe@N <sub>2</sub> graphene electrocatalysts. International Journal of Hydrogen Energy, 2020, 45, 521-530.	7.1	29
17	CO <sub>2</sub> dissociation over Pt <sub>x</sub> Ni <sub>4-x</sub> bimetallic clusters with and without hydrogen sources: A density functional theory study. Journal of CO <sub>2</sub> Utilization, 2016, 16, 431-441.	6.8	28
18	Identification of active sites in CO <sub>2</sub> activation on MgO supported Ni cluster. International Journal of Hydrogen Energy, 2020, 45, 11108-11115.	7.1	24

#	ARTICLE	IF	CITATIONS
19	Effects of convex cavity structure, position and number on conversion of methane catalytic combustion and extinction limit in a micro-channel: A numerical study. Chemical Engineering and Processing: Process Intensification, 2017, 117, 58-69.	3.6	23
20	Effect of active site and charge transfer on methane dehydrogenation over different Co doped Ni surfaces by density functional theory. International Journal of Hydrogen Energy, 2020, 45, 31849-31862.	7.1	22
21	Understanding active sites and mechanism of oxygen reduction reaction on FeN <sub>4</sub> -doped graphene from DFT study. International Journal of Hydrogen Energy, 2020, 45, 15465-15475.	7.1	21
22	Methane combustion reactivity during the metal-metallic oxide transformation of Pd-Pt catalysts: Effect of oxygen pressure. Applied Surface Science, 2018, 435, 776-785.	6.1	17
23	Effect of different doping ratios of Cu on the carbon formation and the elimination on Ni (111) surface: A DFT study. Molecular Catalysis, 2021, 502, 111360.	2.0	17
24	Mechanism of methylene oxidation on Pt catalysts: A DFT study. Computational and Theoretical Chemistry, 2015, 1067, 40-47.	2.5	16
25	Kinetic consequences of methane combustion on Pd, Pt and Pd-Pt catalysts. RSC Advances, 2016, 6, 109834-109845.	3.6	16
26	Mechanism insights into elemental mercury oxidation on RuO <sub>2</sub> (110) surface: A density functional study. Applied Surface Science, 2019, 466, 920-927.	6.1	14
27	Effects of Methane Addition on Exhaust Gas Emissions and Combustion Efficiency of the Premixed n-Heptane/Air Combustion. Energy & Fuels, 2018, 32, 3900-3907.	5.1	13
28	Investigation and improvement of the kinetic mechanism for methanol pyrolysis. International Journal of Hydrogen Energy, 2017, 42, 16345-16354.	7.1	11
29	A comparison of methane activation on catalysts Pt <sub>2</sub> and PtNi. Computational and Theoretical Chemistry, 2015, 1073, 94-101.	2.5	10
30	Mechanisms of oxygen reduction reaction on B doped FeN <sub>4</sub> -G and FeN <sub>4</sub> -CNT catalysts for proton-exchange membrane fuel cells. International Journal of Energy Research, 2021, 45, 8524-8535.	4.5	10
31	A density functional theory study of methane activation on MgO supported Ni <sub>9</sub> M <sub>1</sub> cluster: role of M on C-H activation. Frontiers of Chemical Science and Engineering, 2022, 16, 1485-1492.	4.4	10
32	Comparative density functional theory study of carbon formation and removal mechanism on Rh modified Ni-based catalyst in the CH <sub>4</sub> /CO <sub>2</sub> reforming. International Journal of Energy Research, 2021, 45, 10100-10111.	4.5	8
33	Experimental and theoretical study on propane pyrolysis to produce gas and soot. International Journal of Hydrogen Energy, 2019, 44, 22904-22918.	7.1	7
34	Reaction mechanism insights into CH <sub>4</sub> catalytic oxidation on Pt <sub>13</sub> cluster: A DFT study. Molecular Catalysis, 2021, 515, 111891.	2.0	6
35	Effect of low-nitrogen combustion system with flue gas circulation technology on the performance of NO <sub>x</sub> emission in waste-to-energy power plant. Chemical Engineering and Processing: Process Intensification, 2022, 175, 108910.	3.6	5
36	Numerical Study on Separation Performance of Cyclone Flue Used in Grate Waste Incinerator. Processes, 2019, 7, 866.	2.8	3

#	ARTICLE	IF	CITATIONS
37	Numerical Study on Flow Field Distribution Regularities in Wet Gas Desulfurization Tower Changing Inlet Gas/Liquid Feature Parameters. Journal of Energy Resources Technology, Transactions of the ASME, 2021, 143, .	2.3	3
38	The Influence of Slight Protuberances in a Micro-Tube Reactor on Methane/Moist Air Catalytic Combustion. Energies, 2016, 9, 421.	3.1	2
39	Investigation on the effect of water vapor on the catalytic combustion of methane on platinum. Petroleum Science and Technology, 2018, 36, 494-499.	1.5	2
40	Effects of the geometrical parameters of a rough structure on the wall of a micro-channel on the catalytic combustion of methane and the extinction limit: a numerical study. Sustainable Energy and Fuels, 0, , .	4.9	1