

Juntian Niu

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

1,227
citations

331259

21
h-index

360668

35
g-index

40
all docs

40
docs citations

40
times ranked

995
citing authors

#	ARTICLE	IF	CITATIONS
1	Dry (CO ₂) reforming of methane over Pt catalysts studied by DFT and kinetic modeling. <i>Applied Surface Science</i> , 2016, 376, 79-90.	3.1	113
2	Effect of oxide additives on the hydrotalcite derived Ni catalysts for CO ₂ reforming of methane. <i>Chemical Engineering Journal</i> , 2019, 377, 119763.	6.6	97
3	Methane dry (CO ₂) reforming to syngas (H ₂ /CO) in catalytic process: From experimental study and DFT calculations. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 30267-30287.	3.8	88
4	New mechanism insights into methane steam reforming on Pt/Ni from DFT and experimental kinetic study. <i>Fuel</i> , 2020, 266, 117143.	3.4	86
5	Unraveling Enhanced Activity, Selectivity, and Coke Resistance of Pt-Ni Bimetallic Clusters in Dry Reforming. <i>ACS Catalysis</i> , 2021, 11, 2398-2411.	5.5	83
6	Comprehensive review of Cu-based CO ₂ hydrogenation to CH ₃ OH: Insights from experimental work and theoretical analysis. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 9183-9200.	3.8	78
7	Effects of trapezoidal bluff bodies on blow out limit of methane/air combustion in a micro-channel. <i>Applied Thermal Engineering</i> , 2016, 95, 454-461.	3.0	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. <i>Molecular Catalysis</i> , 2017, 434, 206-218.	1.0	48
9	A comprehensive DFT study of CO ₂ catalytic conversion by H ₂ over Pt-doped Ni catalysts. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 819-834.	3.8	47
10	Insight into the effect of facet-dependent surface and oxygen vacancies of CeO ₂ for Hg removal: From theoretical and experimental studies. <i>Journal of Hazardous Materials</i> , 2020, 397, 122646.	6.5	40
11	The role of S in the Co-N-S-C catalysis system towards the ORR for proton exchange membrane fuel cells. <i>Applied Surface Science</i> , 2021, 540, 148325.	3.1	39
12	Understanding the mechanism of CO ₂ reforming of methane to syngas on Ni@Pt surface compared with Ni(111) and Pt(111). <i>Applied Surface Science</i> , 2020, 513, 145840.	3.1	37
13	A density functional theory study of CO ₂ hydrogenation to methanol over Pd/TiO ₂ catalyst: The role of interfacial site. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 6328-6340.	3.8	35
14	Understanding effects of Ni particle size on steam methane reforming activity by combined experimental and theoretical analysis. <i>Catalysis Today</i> , 2020, 355, 139-147.	2.2	32
15	Highly active and stable Ni/perovskite catalysts in steam methane reforming for hydrogen production. <i>Sustainable Energy and Fuels</i> , 2021, 5, 1845-1856.	2.5	30
16	Mechanisms insight into oxygen reduction reaction on sulfur-doped Fe-N ₂ graphene electrocatalysts. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 521-530.	3.8	29
17	CO ₂ dissociation over Pt _x Ni _{4-x} bimetallic clusters with and without hydrogen sources: A density functional theory study. <i>Journal of CO₂ Utilization</i> , 2016, 16, 431-441.	3.3	28
18	Identification of active sites in CO ₂ activation on MgO supported Ni cluster. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 11108-11115.	3.8	24

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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. <i>Chemical Engineering and Processing: Process Intensification</i> , 2017, 117, 58-69.	1.8	23
20	Effect of active site and charge transfer on methane dehydrogenation over different Co doped Ni surfaces by density functional theory. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 31849-31862.	3.8	22
21	Understanding active sites and mechanism of oxygen reduction reaction on FeN ₄ -doped graphene from DFT study. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 15465-15475.	3.8	21
22	Methane combustion reactivity during the metal ⁺ metallic oxide transformation of Pd-Pt catalysts: Effect of oxygen pressure. <i>Applied Surface Science</i> , 2018, 435, 776-785.	3.1	17
23	Effect of different doping ratios of Cu on the carbon formation and the elimination on Ni (111) surface: A DFT study. <i>Molecular Catalysis</i> , 2021, 502, 111360.	1.0	17
24	Mechanism of methylene oxidation on Pt catalysts: A DFT study. <i>Computational and Theoretical Chemistry</i> , 2015, 1067, 40-47.	1.1	16
25	Kinetic consequences of methane combustion on Pd, Pt and Pd-Pt catalysts. <i>RSC Advances</i> , 2016, 6, 109834-109845.	1.7	16
26	Mechanism insights into elemental mercury oxidation on RuO ₂ (110) surface: A density functional study. <i>Applied Surface Science</i> , 2019, 466, 920-927.	3.1	14
27	Effects of Methane Addition on Exhaust Gas Emissions and Combustion Efficiency of the Premixed n-Heptane/Air Combustion. <i>Energy & Fuels</i> , 2018, 32, 3900-3907.	2.5	13
28	Investigation and improvement of the kinetic mechanism for methanol pyrolysis. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 16345-16354.	3.8	11
29	A comparison of methane activation on catalysts Pt ₂ and PtNi. <i>Computational and Theoretical Chemistry</i> , 2015, 1073, 94-101.	1.1	10
30	Mechanisms of oxygen reduction reaction on B doped FeN ₄ -G and FeN ₄ -CNT catalysts for proton-exchange membrane fuel cells. <i>International Journal of Energy Research</i> , 2021, 45, 8524-8535.	2.2	10
31	A density functional theory study of methane activation on MgO supported Ni ₉ M ₁ cluster: role of M on C-H activation. <i>Frontiers of Chemical Science and Engineering</i> , 2022, 16, 1485-1492.	2.3	10
32	Comparative density functional theory study of carbon formation and removal mechanism on Rh modified Ni-based catalyst in the CH ₄ /CO ₂ reforming. <i>International Journal of Energy Research</i> , 2021, 45, 10100-10111.	2.2	8
33	Experimental and theoretical study on propane pyrolysis to produce gas and soot. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 22904-22918.	3.8	7
34	Reaction mechanism insights into CH ₄ catalytic oxidation on Pt ₁₃ cluster: A DFT study. <i>Molecular Catalysis</i> , 2021, 515, 111891.	1.0	6
35	Effect of low-nitrogen combustion system with flue gas circulation technology on the performance of NO _x emission in waste-to-energy power plant. <i>Chemical Engineering and Processing: Process Intensification</i> , 2022, 175, 108910.	1.8	5
36	Numerical Study on Separation Performance of Cyclone Flue Used in Grate Waste Incinerator. <i>Processes</i> , 2019, 7, 866.	1.3	3

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37	Numerical Study on Flow Field Distribution Regularities in Wet Gas Desulfurization Tower Changing Inlet Gas/Liquid Feature Parameters. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2021, 143, .	1.4	3
38	The Influence of Slight Protuberances in a Micro-Tube Reactor on Methane/Moist Air Catalytic Combustion. <i>Energies</i> , 2016, 9, 421.	1.6	2
39	Investigation on the effect of water vapor on the catalytic combustion of methane on platinum. <i>Petroleum Science and Technology</i> , 2018, 36, 494-499.	0.7	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. <i>Sustainable Energy and Fuels</i> , 0, , .	2.5	1