Ashok Jangam

List of Publications by Year
in descending order

86 papers	8,522 citations	38742 50 h-index	53230 85 g-index
87 all docs	87 docs citations	87 times ranked	5082 citing authors

#	Article	IF	Citations
1	Coreâ€"shell structured catalysts for thermocatalytic, photocatalytic, and electrocatalytic conversion of CO₂. Chemical Society Reviews, 2020, 49, 2937-3004.	38.1	479
2	Yolkâ€"Satelliteâ€"Shell Structured Niâ€"Yolk@Ni@SiO₂ Nanocomposite: Superb Catalyst toward Methane CO₂ Reforming Reaction. ACS Catalysis, 2014, 4, 1526-1536.	11.2	416
3	A Review on Bimetallic Nickelâ€Based Catalysts for CO₂ Reforming of Methane. ChemPhysChem, 2017, 18, 3117-3134.	2.1	395
4	Silicaâ€"Ceria sandwiched Ni coreâ€"shell catalyst for low temperature dry reforming of biogas: Coke resistance and mechanistic insights. Applied Catalysis B: Environmental, 2018, 230, 220-236.	20.2	370
5	Progress in Synthesis of Highly Active and Stable Nickelâ€Based Catalysts for Carbon Dioxide Reforming of Methane. ChemSusChem, 2015, 8, 3556-3575.	6.8	355
6	Kinetic and mechanistic aspects for CO2 reforming of methane over Ni based catalysts. Chemical Engineering Journal, 2015, 278, 62-78.	12.7	282
7	Enhanced activity of CO2 methanation over Ni/CeO2-ZrO2 catalysts: Influence of preparation methods. Catalysis Today, 2017, 281, 304-311.	4.4	266
8	Nickelâ€"Iron Alloy Supported over Ironâ€"Alumina Catalysts for Steam Reforming of Biomass Tar Model Compound. ACS Catalysis, 2014, 4, 289-301.	11.2	263
9	Design of highly stable and selective core/yolkâ€"shell nanocatalystsâ€"A review. Applied Catalysis B: Environmental, 2016, 188, 324-341.	20.2	249
10	A review of recent catalyst advances in CO2 methanation processes. Catalysis Today, 2020, 356, 471-489.	4.4	223
11	Steam reforming of toluene as a biomass tar model compoundÂover CeO2 promoted Ni/CaOâ€"Al2O3 catalytic systems. International Journal of Hydrogen Energy, 2013, 38, 13938-13949.	7.1	220
12	Highly carbon resistant multicore-shell catalyst derived from Ni-Mg phyllosilicate nanotubes@silica for dry reforming of methane. Applied Catalysis B: Environmental, 2016, 195, 1-8.	20.2	178
13	Highly carbon-resistant Niâ€"Co/SiO 2 catalysts derived from phyllosilicates for dry reforming of methane. Journal of CO2 Utilization, 2017, 18, 345-352.	6.8	178
14	Bi-functional hydrotalcite-derived NiOâ€"CaOâ€"Al2O3 catalysts for steam reforming of biomass and/or tar model compound at low steam-to-carbon conditions. Applied Catalysis B: Environmental, 2015, 172-173, 116-128.	20.2	174
15	Inverse NiAl₂O₄ on LaAlO₃â€"Al₂O₃: Unique Catalytic Structure for Stable CO₂ Reforming of Methane. Journal of Physical Chemistry C, 2013, 117, 8120-8130.	3.1	171
16	A highly dispersed and anti-coking Niâ€"La2O3/SiO2 catalyst for syngas production from dry carbon dioxide reforming of methane. Catalysis Science and Technology, 2014, 4, 2107.	4.1	151
17	Enhanced performance and selectivity of CO2 methanation over phyllosilicate structure derived Ni-Mg/SBA-15 catalysts. Applied Catalysis B: Environmental, 2021, 282, 119564.	20.2	145
18	Carbon deposition on borated alumina supported nano-sized Ni catalysts for dry reforming of CH4. Nano Energy, 2012, 1, 674-686.	16.0	144

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19	Simultaneous Tuning Porosity and Basicity of Nickel@Nickelâ€"Magnesium Phyllosilicate Coreâ€"Shell Catalysts for CO₂ Reforming of CH₄. Langmuir, 2014, 30, 14694-14705.	3.5	139
20	Recent progress in the development of catalysts for steam reforming of biomass tar model reaction. Fuel Processing Technology, 2020, 199, 106252.	7.2	139
21	Reforming of tar from biomass gasification in a hybrid catalysis-plasma system: A review. Applied Catalysis B: Environmental, 2019, 250, 250-272.	20.2	133
22	Highly reactive Ni-Co/SiO2 bimetallic catalyst via complexation with oleylamine/oleic acid organic pair for dry reforming of methane. Catalysis Today, 2017, 281, 250-258.	4.4	130
23	Silica-based micro- and mesoporous catalysts for dry reforming of methane. Catalysis Science and Technology, 2018, 8, 2763-2778.	4.1	129
24	High carbon resistant Ni@Ni phyllosilicate@SiO2 core shell hollow sphere catalysts for low temperature CH4 dry reforming. Journal of CO2 Utilization, 2018, 27, 238-246.	6.8	122
25	NiCo@NiCo phyllosilicate@CeO2 hollow core shell catalysts for steam reforming of toluene as biomass tar model compound. Energy Conversion and Management, 2019, 180, 822-830.	9.2	116
26	Recent advances in process and catalyst for CO2 reforming of methane. Renewable and Sustainable Energy Reviews, 2020, 134, 110312.	16.4	116
27	A review on perovskite catalysts for reforming of methane to hydrogen production. Renewable and Sustainable Energy Reviews, 2020, 134, 110291.	16.4	114
28	Sandwichâ€Like Silica@Ni@Silica Multicoreâ€"Shell Catalyst for the Lowâ€Temperature Dry Reforming of Methane: Confinement Effect Against Carbon Formation. ChemCatChem, 2018, 10, 320-328.	3.7	109
29	High performance of Mgâ€"La mixed oxides supported Ni catalysts for dry reforming of methane: The effect of crystal structure. International Journal of Hydrogen Energy, 2013, 38, 13631-13642.	7.1	108
30	Facile Synthesis of High Surface Area Yolkâ€"Shell Ni@Ni Embedded SiO₂ via Ni Phyllosilicate with Enhanced Performance for CO₂ Reforming of CH₄. ChemCatChem, 2015, 7, 160-168.	3.7	106
31	Enhanced performance and selectivity of CO2 methanation over g-C3N4 assisted synthesis of Ni CeO2 catalyst: Kinetics and DRIFTS studies. International Journal of Hydrogen Energy, 2018, 43, 15191-15204.	7.1	104
32	Ni-phyllosilicate structure derived Niâ€"SiO₂â€"MgO catalysts for bi-reforming applications: acidity, basicity and thermal stability. Catalysis Science and Technology, 2018, 8, 1730-1742.	4.1	101
33	Role of lattice oxygen in methane activation on Ni-phyllosilicate@Ce1-xZrxO2 core-shell catalyst for methane dry reforming: Zr doping effect, mechanism, and kinetic study. Applied Catalysis B: Environmental, 2021, 290, 119998.	20.2	100
34	Ni and/or Niâ€"Cu alloys supported over SiO₂catalysts synthesized via phyllosilicate structures for steam reforming of biomass tar reaction. Catalysis Science and Technology, 2015, 5, 4398-4409.	4.1	92
35	Sintering and Coke Resistant Core/Yolk Shell Catalyst for Hydrocarbon Reforming. ChemCatChem, 2019, 11, 202-224.	3.7	84
36	Steam reforming of biomass tar model compound at relatively low steam-to-carbon condition over CaO-doped nickelâ€"iron alloy supported over ironâ€"alumina catalysts. Applied Catalysis A: General, 2015, 490, 24-35.	4.3	83

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37	Effect of Partial Fe Substitution in La_{0.9}Sr_{0.1}NiO₃ Perovskite-Derived Catalysts on the Reaction Mechanism of Methane Dry Reforming. ACS Catalysis, 2020, 10, 12466-12486.	11.2	80
38	Conversion of CO2 to C1 chemicals: Catalyst design, kinetics and mechanism aspects of the reactions. Catalysis Today, 2020, 358, 3-29.	4.4	78
39	Multi-Ni@Ni phyllosilicate hollow sphere for CO₂ reforming of CH₄: influence of Ni precursors on structure, sintering, and carbon resistance. Catalysis Science and Technology, 2018, 8, 1915-1922.	4.1	76
40	Nickelâ€based Catalysts for Highâ€temperature Water Gas Shift Reactionâ€Methane Suppression. ChemCatChem, 2018, 10, 3927-3942.	3.7	75
41	Hydrogen generation from chemical looping reforming of glycerol by Ce-doped nickel phyllosilicate nanotube oxygen carriers. Fuel, 2018, 222, 185-192.	6.4	74
42	LaNiO3 as a precursor of Ni/La2O3 for reverse water-gas shift in DBD plasma: Effect of calcination temperature. Energy Conversion and Management, 2020, 206, 112475.	9.2	74
43	Promotion of the Waterâ€Gasâ€Shift Reaction by Nickel Hydroxyl Species in Partially Reduced Nickelâ€Containing Phyllosilicate Catalysts. ChemCatChem, 2016, 8, 1308-1318.	3.7	71
44	Sintering resistant Ni nanoparticles exclusively confined within SiO₂ nanotubes for CH₄ dry reforming. Catalysis Science and Technology, 2018, 8, 3363-3371.	4.1	71
45	Ni/SiO2 catalyst prepared via Ni-aliphatic amine complexation for dry reforming of methane: Effect of carbon chain number and amine concentration. Applied Catalysis A: General, 2015, 503, 34-42.	4.3	65
46	High-temperature water gas shift reaction on Niâ€"Cu/CeO₂ catalysts: effect of ceria nanocrystal size on carboxylate formation. Catalysis Science and Technology, 2016, 6, 5336-5349.	4.1	64
47	Antiâ€Coking Ni/SiO₂ Catalyst for Dry Reforming of Methane: Role of Oleylamine/Oleic Acid Organic Pair. ChemCatChem, 2015, 7, 4188-4196.	3.7	62
48	Synthesis and evaluation of highly dispersed SBA-15 supported Niâ€"Fe bimetallic catalysts for steam reforming of biomass derived tar reaction. Catalysis Science and Technology, 2016, 6, 4327-4336.	4.1	57
49	A highly active and stable Niâ€"Mg phyllosilicate nanotubular catalyst for ultrahigh temperature water-gas shift reaction. Chemical Communications, 2015, 51, 16324-16326.	4.1	54
50	Low temperature partial oxidation of methane via BaBi 0.05 Co 0.8 Nb 0.15 O 3â^'Î´ -Ni phyllosilicate catalytic hollow fiber membrane reactor. Chemical Engineering Journal, 2017, 315, 315-323.	12.7	54
51	Recent Developments in Dielectric Barrier Discharge Plasma-Assisted Catalytic Dry Reforming of Methane over Ni-Based Catalysts. Catalysts, 2021, 11, 455.	3.5	51
52	An in situ self-assembled coreâ€"shell precursor route to prepare ultrasmall copper nanoparticles on silica catalysts. Journal of Materials Chemistry A, 2014, 2, 7837.	10.3	46
53	Incinerator bottom ash derived from municipal solid waste as a potential catalytic support for biomass tar reforming. Waste Management, 2018, 82, 249-257.	7.4	44
54	Zrâ€"Ce-incorporated Ni/SBA-15 catalyst for high-temperature water gas shift reaction: Methane suppression by incorporated Zr and Ce. Journal of Catalysis, 2020, 387, 47-61.	6.2	44

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55	High oxygen permeable and CO2-tolerant SrCoxFe0.9-xNb0.1O3-Î´ (xâ€‰=â€‰0.1â€“0.8) perovskite membranes: Behavior and mechanism. Separation and Purification Technology, 2018, 201, 30-40.	7.9	41
56	Smart Designs of Anti-Coking and Anti-Sintering Ni-Based Catalysts for Dry Reforming of Methane: A Recent Review. Reactions, 2020, 1, 162-194.	2.1	41
57	Mesoporous-Silica-Stabilized Cobalt(II) Oxide Nanoclusters for Propane Dehydrogenation. ACS Applied Nano Materials, 2021, 4, 1112-1125.	5.0	40
58	Catalytic mixed conducting ceramic membrane reactors for methane conversion. Reaction Chemistry and Engineering, 2020, 5, 1868-1891.	3.7	37
59	CO2 as an Oxidant for High-Temperature Reactions. Frontiers in Energy Research, 2015, 3, .	2.3	32
60	State-of-art modifications of heterogeneous catalysts for CO2 methanation â€“ Active sites, surface basicity and oxygen defects. Catalysis Today, 2022, 402, 88-103.	4.4	32
61	Recent progress in anti-coking Ni catalysts for thermo-catalytic conversion of greenhouse gases. Chemical Engineering Research and Design, 2021, 156, 598-616.	5.6	31
62	Steam reforming of toluene as model compound of biomass tar over Niâ€“Co/La2O3 nano-catalysts: Synergy of Ni and Co. International Journal of Hydrogen Energy, 2021, 46, 30926-30936.	7.1	30
63	Sulfur resistant La_xCe_{1âˆ’x}Ni_{0.5}Cu_{0.5}O₃ catalysts for an ultra-high temperature water gas shift reaction. Catalysis Science and Technology, 2016, 6, 6569-6580.	4.1	29
64	Highly dispersed nickel catalysts <i>via</i> a facile pyrolysis generated protective carbon layer. Chemical Communications, 2019, 55, 6074-6077.	4.1	29
65	Preparation of highly dispersed Cu/SiO2 doped with CeO2 and its application for high temperature water gas shift reaction. International Journal of Hydrogen Energy, 2018, 43, 15891-15897.	7.1	27
66	Highly Efficient NO Decomposition via Dual-Functional Catalytic Perovskite Hollow Fiber Membrane Reactor Coupled with Partial Oxidation of Methane at Medium-Low Temperature. Environmental Science & Technology, 2019, 53, 9937-9946.	10.0	26
67	Complete confinement of Ce/Ni within SiO2 nanotube with high oxygen vacancy concentration for CO2 methane reforming. Fuel, 2022, 325, 124819.	6.4	23
68	Catalytic reforming of tar model compound over La1-xSrx-Co0.5Ti0.5O3-Î´ dual perovskite catalysts: Resistance to sulfide and chloride compounds. Applied Catalysis A: General, 2021, 613, 118013.	4.3	22
69	Steam reforming of surrogate diesel model over hydrotalcite-derived MO-CaO-Al2O3 (MÂ=ÂNi & Co) catalysts for SOFC applications. Fuel, 2021, 291, 120194.	6.4	22
70	The role of lattice oxygen in CO2 hydrogenation to methanol over La1-xSrxCuO catalysts. Journal of CO2 Utilization, 2021, 47, 101498.	6.8	22
71	A review on roles of pretreatment atmospheres for the preparation of efficient Ni-based catalysts. Catalysis Today, 2022, 397-399, 581-591.	4.4	22
72	Recent Advances in Catalyst Technology for Biomass Tar Model Reforming: Thermal, Plasma and Membrane Reactors. Waste and Biomass Valorization, 2022, 13, 1-30.	3.4	21

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73	CO₂ Hydrogenation to Methanol over Partially Reduced Cu-SiO_{2P} Catalysts: The Crucial Role of Hydroxyls for Methanol Selectivity. ACS Applied Energy Materials, 2021, 4, 12149-12162.	5.1	21
74	1D confined materials synthesized <i>via</i> a coating method for thermal catalysis and energy storage applications. Journal of Materials Chemistry A, 2022, 10, 6330-6350.	10.3	21
75	Efficient syngas production via CO2 reforming and electroreduction reactions through catalyst design. Energy Conversion and Management, 2022, 265, 115744.	9.2	20
76	Highly dispersed supported metal catalysts prepared via in-situ self-assembled core-shell precursor route. International Journal of Hydrogen Energy, 2015, 40, 13388-13398.	7.1	19
77	Dielectric Barrier Discharge Plasma-Assisted Catalytic CO2 Hydrogenation: Synergy of Catalyst and Plasma. Catalysts, 2022, 12, 66.	3.5	16
78	H2S and NOx tolerance capability of CeO2 doped La1â^’xCexCo0.5Ti0.5O3â^’Î´ perovskites for steam reforming of biomass tar model reaction. Energy Conversion and Management: X, 2019, 1, 100003.	1.6	13
79	Synthesis strategies of carbon nanotube supported and confined catalysts for thermal catalysis. Chemical Engineering Journal, 2022, 431, 133970.	12.7	11
80	Modification strategies of heterogeneous catalysts for waterâ€“gas shift reactions. Reaction Chemistry and Engineering, 2022, 7, 551-565.	3.7	9
81	A review of catalyst modifications for a highly active and stable hydrogen production from methane. International Journal of Hydrogen Energy, 2023, 48, 6204-6232.	7.1	9
82	A superb water permeable membrane for potential applications in CO2 to liquid fuel process. Journal of Membrane Science, 2021, 639, 119682.	8.2	8
83	Sintering resistant cubic ceria yolk Ni phyllosilicate shell catalyst for methane dry reforming. Catalysis Today, 2022, 402, 319-327.	4.4	8
84	CO2 methanation on Ni-Ce0.8M0.2O2 (M=Zr, Sn or Ti) catalyst: Suppression of CO via formation of bridging carbonyls on nickel. Catalysis Today, 2023, 424, 113053.	4.4	7
85	Catalytic CO2 Conversion to Added-Value Energy Rich C1 Products. , 2019, , 155-210.		6
86	Core-Shell Structured Catalysts for Catalytic Conversion of CO2 to Syngas. Nanostructure Science and Technology, 2021, , 121-149.	0.1	2