Dushyant Shekhawat

List of Publications by Year
in descending order

65 papers	1,810 citations	279798 23 h-index	289244 40 g-index
65 all docs	65 docs citations	65 times ranked	1740 citing authors

#	Article	IF	Citations
1	Kinetic and mechanistic study of dry (CO2) reforming of methane over Rh-substituted La2Zr2O7 pyrochlores. Journal of Catalysis, 2014, 316, 78-92.	6.2	143
2	Effect of Fe and Zn promoters on Mo/HZSM-5 catalyst for methane dehydroaromatization. Fuel, 2015, 139, 401-410.	6.4	96
3	Microwave-assisted pyrolysis of Mississippi coal: A comparative study with conventional pyrolysis. Fuel, 2018, 217, 656-667.	6.4	96
4	Chemical-Looping Combustion and Gasification of Coals and Oxygen Carrier Development: A Brief Review. Energies, 2015, 8, 10605-10635.	3.1	88
5	Effect of reaction temperature on activity of Pt- and Ru-substituted lanthanum zirconate pyrochlores (La2Zr2O7) for dry (CO2) reforming of methane (DRM). Journal of CO2 Utilization, 2013, 1, 37-42.	6.8	87
6	Catalytic partial oxidation of n-tetradecane in the presence of sulfur or polynuclear aromatics: Effects of support and metal. Applied Catalysis A: General, 2006, 311, 8-16.	4.3	77
7	Catalytic partial oxidation of a diesel surrogate fuel using an Ru-substituted pyrochlore. Catalysis Today, 2010, 155, 84-91.	4.4	60
8	Synthesis, characterization, and catalytic activity of Rh-based lanthanum zirconate pyrochlores for higher alcohol synthesis. Catalysis Today, 2013, 207, 65-73.	4.4	56
9	Catalytic partial oxidation of n-tetradecane using Rh and Sr substituted pyrochlores: Effects of sulfur. Catalysis Today, 2009, 145, 121-126.	4.4	55
10	Investigation of the stability of Zn-based HZSM-5 catalysts for methane dehydroaromatization. Applied Catalysis A: General, 2015, 505, 365-374.	4.3	53
11	Fuel constituent effects on fuel reforming properties for fuel cell applications. Fuel, 2009, 88, 817-825.	6.4	51
12	Effect of nickel hexaaluminate mirror cation on structure-sensitive reactions during n-tetradecane partial oxidation. Applied Catalysis A: General, 2007, 323, 1-8.	4.3	49
13	Bi-reforming of methane on Ni-based pyrochlore catalyst. Applied Catalysis A: General, 2016, 517, 211-216.	4.3	47
14	<i>110th Anniversary</i>: Dry Reforming of Methane over Ni- and Sr-Substituted Lanthanum Zirconate Pyrochlore Catalysts: Effect of Ni Loading. Industrial & Engineering Chemistry Research, 2019, 58, 19386-19396.	3.7	41
15	Characterization and activity study of the Rh-substituted pyrochlores for CO2 (dry) reforming of CH4. Applied Petrochemical Research, 2013, 3, 117-129.	1.3	40
16	Dry reforming of methane with isotopic gas mixture over Ni-based pyrochlore catalyst. International Journal of Hydrogen Energy, 2019, 44, 4167-4176.	7.1	40
17	Microwave-driven heterogeneous catalysis for activation of dinitrogen to ammonia under atmospheric pressure. Chemical Engineering Journal, 2020, 397, 125388.	12.7	39
18	The reactivity of CuO oxygen carrier and coal in Chemical-Looping with Oxygen Uncoupled (CLOU) and In-situ Gasification Chemical-Looping Combustion (iG-CLC). Fuel, 2018, 217, 642-649.	6.4	37

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19	Role of metal substitution in lanthanum zirconate pyrochlores ($La_2Zr_2O_7$) for dry (CO_2) reforming of methane (DRM). Applied Petrochemical Research, 2012, 2, 27-35.	1.3	34
20	Characterization of calcination temperature on a Ni-substituted lanthanum-strontium-zirconate pyrochlore. Ceramics International, 2017, 43, 16744-16752.	4.8	27
21	Ambient pressure synthesis of ammonia using a microwave reactor. Catalysis Communications, 2018, 115, 64-67.	3.3	26
22	Molten catalytic coal gasification with in situ carbon and sulphur capture. Energy and Environmental Science, 2012, 5, 8660.	30.8	24
23	Catalytic direct conversion of ethane to value-added chemicals under microwave irradiation. Catalysis Today, 2020, 356, 3-10.	4.4	24
24	Effects of fuel cell anode recycle on catalytic fuel reforming. Journal of Power Sources, 2007, 168, 477-483.	7.8	23
25	Comparative evaluation of microwave and conventional gasification of different coal types: Experimental reaction studies. Fuel, 2022, 321, 124055.	6.4	23
26	Reducing the deactivation of Ni-metal during the catalytic partial oxidation of a surrogate diesel fuel mixture. Catalysis Today, 2010, 154, 210-216.	4.4	22
27	Carbon formation on Rh-substituted pyrochlore catalysts during partial oxidation of liquid hydrocarbons. Applied Catalysis A: General, 2015, 502, 96-104.	4.3	22
28	Effect of Microwave and Thermal Co-pyrolysis of Low-Rank Coal and Pine Wood on Product Distributions and Char Structure. Energy & Fuels, 2019, 33, 7069-7082.	5.1	22
29	Interaction of manganese with aluminosilicate support during high temperature (1100ÂÂ°C) chemical looping combustion of the Fe-Mn-based oxygen carrier. Fuel, 2020, 263, 116738.	6.4	22
30	The effect of La substitution by Sr- and Ca- in Ni substituted Lanthanum Zirconate pyrochlore catalysts for dry reforming of methane. Applied Catalysis A: General, 2020, 602, 117721.	4.3	22
31	Stability of Fe- and Zn-Promoted Mo/ZSM-5 Catalysts for Ethane Dehydroaromatization in Cyclic Operation Mode. Energy & Fuels, 2018, 32, 7810-7819.	5.1	21
32	Microwave-Assisted Pretreatment of Coal Fly Ash for Enrichment and Enhanced Extraction of Rare-Earth Elements. Energy & Fuels, 2019, 33, 12083-12095.	5.1	20
33	Comparison of microwave and conventional heating for CO_2 desorption from zeolite 13X. International Journal of Greenhouse Gas Control, 2021, 107, 103311.	4.6	20
34	Examining and Modeling Oxygen Uncoupling Kinetics of Cu-Based Oxygen Carriers for Chemical Looping with Oxygen Uncoupling (CLOU) in a Drop Tube Fluidized Bed Reactor. Energy & Fuels, 2019, 33, 5610-5619.	5.1	19
35	Formation and Recovery of Itaconic Acid from Aqueous Solutions of Citraconic Acid and Succinic Acid. Industrial & Engineering Chemistry Research, 2002, 41, 2069-2073.	3.7	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	Microwave-assisted conversion of methane over H-(Fe)-ZSM-5: Evidence for formation of hot metal sites. Chemical Engineering Journal, 2021, 420, 129670.	12.7	18
38	Development of Fe-based oxygen carrier using spent FCC catalyst as support for high temperature chemical looping combustion. Fuel, 2020, 259, 116239.	6.4	17
39	Process model and economic analysis of itaconic acid production from dimethyl succinate and formaldehyde. Bioresource Technology, 2006, 97, 342-347.	9.6	15
40	Partial oxidation of liquid hydrocarbons in the presence of oxygen-conducting supports: Effect of catalyst layer deposition. Fuel, 2010, 89, 1193-1201.	6.4	15
41	Microwave-enhanced catalytic ammonia synthesis under moderate pressure and temperature. Catalysis Communications, 2021, 159, 106344.	3.3	14
42	A combined experimental and modeling study of Microwave-assisted methane dehydroaromatization process. Chemical Engineering Journal, 2022, 433, 134445.	12.7	14
43	Steamâ€"Coal Gasification Using CaO and KOH forin SituCarbon and Sulfur Capture. Energy & Fuels, 2013, 27, 4278-4289.	5.1	11
44	Characterization of LaRhO3 perovskites for dry (CO2) reforming of methane (DRM). Chemical Papers, 2014, 68, .	2.2	11
45	Methane steam reforming at low steam-to-carbon ratio: The effect of Y doping in Rh substituted lanthanum zirconates. Applied Catalysis A: General, 2020, 606, 117802.	4.3	11
46	Effects of support and promoter on Ru catalyst activity in microwave-assisted ammonia synthesis. Chemical Engineering Journal, 2021, 425, 130546.	12.7	11
47	Study of the Hydrogen Pretreatment of Gallium and Platinum Promoted ZSM-5 for the Ethane Dehydroaromatization Reaction. Industrial & Engineering Chemistry Research, 2021, 60, 11421-11431.	3.7	10
48	Solid-state synthesis of YAG powders through microwave coupling of oxide/carbon particulate mixtures. Ceramics International, 2017, 43, 11455-11462.	4.8	9
49	Effect of calcination temperature on steam reforming activity of Ni-based pyrochlore catalysts. Journal of Rare Earths, 2020, 38, 711-718.	4.8	9
50	Microwave-induced selective decomposition of cellulose: Computational and experimental mechanistic study. Journal of Physics and Chemistry of Solids, 2021, 150, 109858.	4.0	9
51	Formation of citraconic anhydride via condensation of dialkyl succinates and formaldehyde. Applied Catalysis A: General, 2002, 223, 261-273.	4.3	8
52	Partial Oxidation of <i>n</i>-Tetradecane over 1 wt % Pt/Î³-Al₂O₃ and Co_{0.4}Mo_{0.6}C_{<i>x</i>} Carbide Catalysts: A Comparative Study. Industrial & Engineering Chemistry Research, 2008, 47, 7663-7671.	3.7	8
53	Microwave-Assisted Conversion of Low Rank Coal under Methane Environment. Energy & Fuels, 2019, 33, 905-915.	5.1	8
54	Dielectric measurement of powdery materials using a coaxial transmission line. IET Science, Measurement and Technology, 2020, 14, 972-978.	1.6	8

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55	Catalytic Partial Oxidation. , 2011, , 73-128.		7
56	Effect of the Catalyst Bed Configuration on the Partial Oxidation of Liquid Hydrocarbons. Energy & Fuels, 2013, 27, 4363-4370.	5.1	7
57	Coal Chemical-Looping with Oxygen Uncoupling (CLOU) Using a Cu-Based Oxygen Carrier Derived from Natural Minerals. Energies, 2019, 12, 1453.	3.1	7
58	Introduction to Fuel Processing. , 2011, , 1-9.		4
59	Zeolites interactions with microwaves during methane non-oxidative coupling. Catalysis Today, 2021, 365, 88-102.	4.4	4
60	Kinetics of Citraconic Anhydride Formation via Condensation of Formaldehyde and Succinates. Organic Process Research and Development, 2002, 6, 611-617.	2.7	3
61	Oxidative Steam Reforming. , 2011, , 129-190.		3
62	Operation of a solid oxide fuel cell on a reformed FAME mixture. Biomass and Bioenergy, 2012, 47, 362-371.	5.7	3
63	Effect of Char Loading on Reduction Kinetics of Cu-Based Oxygen Carriers in a Drop-Tube Fluidized-Bed Reactor at Temperatures from 850 to 1100 Â°C: Experiment and CFD Modeling. Energy & Fuels, 2020, 34, 728-741.	5.1	2
64	Machine learning approach to transform scattering parameters to complex permittivities. Journal of Microwave Power and Electromagnetic Energy, 2021, 55, 287-302.	0.8	2
65	Catalytic Material Development for a SOFC Reforming System: Application of an Oxidative Steam Reforming Catalyst to a Monolithic Reactor. , 2010, , .		0