

CITATION REPORT

List of articles citing

**Recent progress in methane dehydroaromatization:
From laboratory curiosities to promising technology**

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#	Paper	IF	Citations
185	Effect of superficial velocity on the coking behavior of a nanozeolite-based Mo/HZSM-5 catalyst in the non-oxidative CH ₄ dehydroaromatization at 1073 K. <i>Catalysis Science and Technology</i> , 2013 , 3, 2769	5.5	22
184	Catalytic Membrane Reactors [Lab Curiosity or Key Enabling Technology?]. 2014 , 86, 1901-1905		10
183	Thermal Methane Conversion to Formaldehyde Promoted by Single Platinum Atoms in PtAl ₂ O ₄ Cluster Anions. <i>Angewandte Chemie</i> , 2014 , 126, 9636-9640	3.6	36
182	Thermal methane conversion to formaldehyde promoted by single platinum atoms in PtAl ₂ O ₄ (-) cluster anions. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 9482-6	16.4	99
181	Direct, nonoxidative conversion of methane to ethylene, aromatics, and hydrogen. 2014 , 344, 616-9		862
180	CO ₂ atmosphere-enhanced methanol aromatization over the NiO-HZSM-5 catalyst. 2014 , 4, 44377-44385		32
179	Mechanism of Fe additive improving the activity stability of microzeolite-based Mo/HZSM-5 catalyst in non-oxidative methane dehydroaromatization at 1073 K under periodic CH ₄ /H ₂ switching modes. <i>Catalysis Science and Technology</i> , 2014 , 4, 3644-3656	5.5	12
178	Thermal conversion of methane to formaldehyde promoted by gold in AuNbO ₃ (+) cluster cations. <i>Chemistry - A European Journal</i> , 2015 , 21, 6957-61	4.8	33
177	Methane dehydroaromatization with periodic CH ₄ -H ₂ switch: A promising process for aromatics and hydrogen. <i>Journal of Energy Chemistry</i> , 2015 , 24, 257-263	12	29
176	Effect of addition of a second metal in Mo/ZSM-5 catalyst for methane aromatization reaction under elevated pressures. <i>Catalysis Today</i> , 2015 , 256, 269-275	5.3	30
175	Zeolites and Zeotypes for Oil and Gas Conversion. 2015 , 58, 143-314		41
174	Activation of Mo/HZSM-5 for methane aromatization. <i>Chinese Journal of Catalysis</i> , 2015 , 36, 829-837	11.3	36
173	Reactive Capacity Study of Methane Adsorbed in Aluminic-Platinum Catalyst. 2015 , 113, 79-83		
172	The influence of molybdenum loading on activity of ZSM-5 zeolite in dehydroaromatization of methane. <i>Microporous and Mesoporous Materials</i> , 2015 , 212, 146-155	5.3	21
171	Non-oxidative dehydroaromatization of methane: an effective reaction/regeneration cyclic operation for catalyst life extension. <i>Catalysis Science and Technology</i> , 2015 , 5, 3806-3821	5.5	40
170	Improved benzene production from methane dehydroaromatization over Mo/HZSM-5 catalysts via hydrogen-permselective palladium membrane reactors. <i>Catalysis Science and Technology</i> , 2015 , 5, 5023-5036	5.5	32
169	Kinetic modeling of methane dehydroaromatization chemistry on Mo/Zeolite catalysts in packed-bed reactors. 2015 , 123, 474-486		39

168	Methane Activation by Heterogeneous Catalysis. 2015 , 145, 23-39		406
167	Effect of Fe and Zn promoters on Mo/HZSM-5 catalyst for methane dehydroaromatization. <i>Fuel</i> , 2015 , 139, 401-410	7.1	82
166	Super Hydrocarbon Reformer Trap For the Complete Oxidation of Toluene Using Iron-Exchanged Zeolite with a Low Silicon/Aluminum Ratio. <i>ChemCatChem</i> , 2016 , 8, 2516-2524	5.2	11
165	Methane dehydroaromatization and methanol activation over zeolite catalysts: an overview. 2016 , 6, 183-190		
164	Features of non-oxidative conversion of methane into aromatic hydrocarbons over Mo-containing zeolite catalysts. 2016 , 43, 012064		0
163	Progress in the direct catalytic conversion of methane to fuels and chemicals. 2016 , 55, 60-97		197
162	Catalytic Chemistry for Methane Dehydroaromatization (MDA) on a Bifunctional Mo/HZSM-5 Catalyst in a Packed Bed. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 9895-9906	3.9	35
161	Ceramic Membranes with Mixed Ionic and Electronic Conductivity. 2016 , 75-103		2
160	Methane Dehydro-Aromatization: Potential of a Mo/MCM-22 Catalyst and Hydrogene-Selective Membranes. 2016 , 88, 168-176		8
159	Effect of Bed Height on the Performance of a Fixed Mo/HZSM-5 Bed in Direct Aromatization of Methane. 2016 , 39, 2059-2065		7
158	Zn-HZSM-5 catalysts for methane dehydroaromatization. 2016 , 35, 334-344		6
157	A Selection of Recent Advances in C1 Chemistry. 2016 , 7, 223-38		82
156	Further Steps of Zeolites Toward Industrial Applications. 2016 , 309-369		4
155	Disruptive catalysis by zeolites. <i>Catalysis Science and Technology</i> , 2016 , 6, 2485-2501	5.5	50
154	Highly-efficient conversion of methanol to p-xylene over shape-selective Mg ₂ Nb-Bi-HZSM-5 catalyst with fine modification of pore-opening and acidic properties. <i>Catalysis Science and Technology</i> , 2016 , 6, 4802-4813	5.5	33
153	Non-oxidative methane dehydroaromatization on Mo/HZSM-5 catalysts: Tuning the acidic and catalytic properties through partial exchange of zeolite protons with alkali and alkaline-earth cations. <i>Applied Catalysis A: General</i> , 2016 , 515, 32-44	5.1	35
152	Process intensification in the catalytic conversion of natural gas to fuels and chemicals. 2017 , 36, 51-76		33
151	A binder-free fluidizable Mo/HZSM-5 catalyst for non-oxidative methane dehydroaromatization in a dual circulating fluidized bed reactor system. <i>Catalysis Today</i> , 2017 , 279, 115-123	5.3	14

150	Stable Mo/HZSM-5 methane dehydroaromatization catalysts optimized for high-temperature calcination-regeneration. <i>Journal of Catalysis</i> , 2017 , 346, 125-133	7.3	106
149	Methane Conversion to Ethylene and Aromatics on PtSn Catalysts. <i>ACS Catalysis</i> , 2017 , 7, 2088-2100	13.1	73
148	Silver-Promoted Dehydroaromatization of Ethylene over ZSM-5 Catalysts. <i>ChemCatChem</i> , 2017 , 9, 1675-1682	5.2	23
147	Passivation agents and conditions for Mo ₂ C and W ₂ C: Effect on catalytic activity for toluene hydrogenation. <i>Journal of Catalysis</i> , 2017 , 347, 89-101	7.3	27
146	Enhanced Methane Dehydroaromatization via Coupling with Chemical Looping. <i>ACS Catalysis</i> , 2017 , 7, 3924-3928	13.1	24
145	Direct Conversion of Methane to Value-Added Chemicals over Heterogeneous Catalysts: Challenges and Prospects. 2017 , 117, 8497-8520		581
144	In Situ Formation of Metal Carbide Catalysts. <i>ChemCatChem</i> , 2017 , 9, 3090-3101	5.2	12
143	The Influence of Hydrogen-Permeable Membranes and Pressure on Methane Dehydroaromatization in Packed-Bed Catalytic Reactors. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 3551-3559	3.9	13
142	Methane conversion into different hydrocarbons or oxygenates: current status and future perspectives in catalyst development and reactor operation. <i>Catalysis Science and Technology</i> , 2017 , 7, 366-381	5.5	147
141	Facile preparation of hierarchically porous IM-5 zeolite with enhanced catalytic performance in methane aromatization. 2017 , 45, 1074-1081		7
140	Direct conversion of syngas to aromatics. 2017 , 53, 11146-11149		116
139	Catalytic Methane Dehydroaromatization with Stable Nano Fe Doped on Mo/HZSM-5 Synthesized with a Simple and Environmentally Friendly Method and Clarification of a Perplexing Catalysis Mechanism Dilemma in This Field for a Period of Time. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 11299-11312	3.9	19
138	Synthesis from C1 Sources. 2017 , 125-235		
137	Improved performance of hierarchical porous Mo/H-IM-5 catalyst in methane non-oxidative aromatization. 2017 , 7, 97-105		5
136	Periodic density functional theory analysis of direct methane conversion into ethylene and aromatic hydrocarbons catalyzed by MoC/ZSM-5. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 22243-22255	3.6	9
135	Nanocatalysis: A Key Role for Sustainable Energy Future. 2017 , 383-400		0
134	3.1 Basic Aspects of Membrane Reactors. 2017 , 1-29		1
133	Formation of Acetylene in the Reaction of Methane with Iron Carbide Cluster Anions FeC ₃ ⁻ under High-Temperature Conditions. <i>Angewandte Chemie</i> , 2018 , 130, 2692-2696	3.6	8

132	Hollow ZSM-5 zeolite grass ball catalyst in methane dehydroaromatization: One-step synthesis and the exceptional catalytic performance. <i>Applied Catalysis A: General</i> , 2018 , 556, 10-19	5.1	30
131	Enhancement of Molybdenum/ZSM-5 Catalysts in Methane Aromatization by the Addition of Iron Promoters and by Reduction/Carburization Pretreatment. <i>ChemCatChem</i> , 2018 , 10, 2571-2583	5.2	26
130	A General Framework for the Evaluation of Direct Nonoxidative Methane Conversion Strategies. 2018 , 2, 349-365		56
129	Formation of Acetylene in the Reaction of Methane with Iron Carbide Cluster Anions FeC under High-Temperature Conditions. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 2662-2666	16.4	24
128	Progress in Nonoxidative Dehydroaromatization of Methane in the Last 6 Years. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 1768-1789	3.9	62
127	Conversion of syngas toward aromatics over hybrid Fe-based Fischer-Tropsch catalysts and HZSM-5 zeolites. <i>Applied Catalysis A: General</i> , 2018 , 552, 168-183	5.1	56
126	Effect of Si/Al 2 ratios in Mo/H-MCM-22 on methane dehydroaromatization. <i>Applied Catalysis A: General</i> , 2018 , 552, 11-20	5.1	21
125	Relevance of the Mo-precursor state in H-ZSM-5 for methane dehydroaromatization. <i>Catalysis Science and Technology</i> , 2018 , 8, 916-922	5.5	30
124	On the dynamic nature of Mo sites for methane dehydroaromatization. <i>Chemical Science</i> , 2018 , 9, 4801-4807	4.9	49
123	Impact of the presence of Mo carbide species prepared ex situ in Mo/HZSM-5 on the catalytic properties in methane aromatization. <i>Applied Catalysis A: General</i> , 2018 , 558, 67-80	5.1	31
122	Direct non-oxidative methane aromatization over gallium nitride catalyst in a continuous flow reactor. 2018 , 106, 16-19		17
121	Investigation of CH _x (x = 2-4) Adsorption on Mo ₂ C and Mo ₄ C ₂ Sites Incorporated in ZSM-5 Zeolite Using Periodic-DFT Approach. 2018 , 148, 68-78		6
120	Low Temperature Direct Conversion of Methane using a Solid Superacid. <i>ChemCatChem</i> , 2018 , 10, 5019-5024	5.0	9
119	Dry reforming of model biomass pyrolysis products to syngas by dielectric barrier discharge plasma. 2018 , 43, 10281-10293		25
118	Mechanistic Insights into the Activity of Mo-Carbide Clusters for Methane Dehydrogenation and Carbon-Carbon Coupling Reactions To Form Ethylene in Methane Dehydroaromatization. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 11754-11764	3.8	18
117	Direct Methylation of Benzene with Methane Catalyzed by Co/MFI Zeolite. <i>ChemCatChem</i> , 2018 , 10, 3805-3812	5.1	16
116	Stability of Fe- and Zn-Promoted Mo/ZSM-5 Catalysts for Ethane Dehydroaromatization in Cyclic Operation Mode. 2018 , 32, 7810-7819		19
115	Progress in Developing a Structure-Activity Relationship for the Direct Aromatization of Methane. <i>ChemCatChem</i> , 2019 , 11, 39-52	5.2	49

114	Non-oxidative methane conversion in microwave-assisted structured reactors. <i>Chemical Engineering Journal</i> , 2019 , 377, 119764	14.7	44
113	Structure and Reactivity of the Mo/ZSM-5 Dehydroaromatization Catalyst: An Operando Computational Study. <i>ACS Catalysis</i> , 2019 , 9, 8731-8737	13.1	33
112	Nonoxidative Direct Conversion of Methane on Silica-Based Iron Catalysts: Effect of Catalytic Surface. <i>ACS Catalysis</i> , 2019 , 9, 7984-7997	13.1	38
111	Process, reactor and catalyst design: Towards application of direct conversion of methane to aromatics under nonoxidative conditions. 2019 , 2, 157-174		16
110	The coupled conversion of methane with n-pentane on Pt/Ga/Al ₂ O ₃ systems under non-oxidative conditions. 2019 ,		
109	Quantifying the impact of dispersion, acidity and porosity of Mo/HZSM-5 on the performance in methane dehydroaromatization. <i>Applied Catalysis A: General</i> , 2019 , 574, 144-150	5.1	13
108	Oxidative Coupling of Methane (OCM) by SiO ₂ -Supported Tungsten Oxide Catalysts Promoted with Mn and Na. <i>ACS Catalysis</i> , 2019 , 9, 5912-5928	13.1	86
107	Increasing the catalytic stability by optimizing the formation of zeolite-supported Mo carbide species ex situ for methane dehydroaromatization. <i>Journal of Catalysis</i> , 2019 , 375, 314-328	7.3	18
106	Advances in Catalyst Design for the Conversion of Methane to Aromatics: A Critical Review. 2019 , 23, 149-170		21
105	Methane Aromatization in a Fluidized Bed Reactor: Parametric Study. 2019 , 7,		2
104	Non-oxidative methane conversion over Mo/ZSM-5 catalysts with mesoporous structure. 2019 , 597, 012019		
103	Micro- and mesoporous zeolites for methane dehydroaromatization and Mo-containing catalysts based on them. 2019 ,		
102	Thermodynamic Equilibrium Analysis of Product Distribution in the Fischer-Tropsch Process Under Different Operating Conditions. 2019 , 4, 22237-22244		2
101	Non-oxidative dehydroaromatization of methane over Mo/H-ZSM-5 catalysts: A detailed analysis of the reaction-regeneration cycle. <i>Applied Catalysis B: Environmental</i> , 2019 , 241, 305-318	21.8	49
100	Determination of Molybdenum Species Evolution during Non-Oxidative Dehydroaromatization of Methane and its Implications for Catalytic Performance. <i>ChemCatChem</i> , 2019 , 11, 473-480	5.2	28
99	Methane dehydroaromatization [A study on hydrogen use for catalyst reduction, role of molybdenum, the nature of catalyst support and significance of Bronsted acid sites. <i>Journal of Energy Chemistry</i> , 2019 , 34, 20-32	12	10
98	Kinetic modeling of methane dehydroaromatization over a Mo ₂ C/H-ZSM5 catalyst: Different deactivation behaviors of the Mo ₂ C and H-ZSM5 sites. <i>Catalysis Today</i> , 2020 , 352, 140-147	5.3	4
97	Natural gas utilization: Current status and opportunities. <i>Catalysis Today</i> , 2020 , 356, 27-36	5.3	10

96	Supercritical solvothermal synthesis under reducing conditions to increase stability and durability of Mo/ZSM-5 catalysts in methane dehydroaromatization. <i>Applied Catalysis B: Environmental</i> , 2020 , 263, 118360	21.8	19
95	Implications of the Molybdenum Coordination Environment in MFI Zeolites on Methane Dehydroaromatization Performance. <i>ChemCatChem</i> , 2020 , 12, 294-304	5.2	11
94	Bimetallic Mo-Co/ZSM-5 and Mo-Ni/ZSM-5 catalysts for methane dehydroaromatization: A study of the effect of pretreatment and metal loadings on the catalytic behavior. <i>Applied Catalysis A: General</i> , 2020 , 589, 117247	5.1	30
93	Direct Nonoxidative Methane Coupling to Ethylene over Gallium Nitride: A Catalyst Regeneration Study. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 4245-4256	3.9	8
92	Experimental investigation of the promotion effect of CO on catalytic behavior of Mo/HZSM-5 catalyst in CH ₄ dehydroaromatization at 1073 K. <i>Fuel</i> , 2020 , 262, 116674	7.1	8
91	Direct Nonoxidative Conversion of Methane to Higher Hydrocarbons over Silica-Supported Nickel Phosphide Catalyst. <i>ACS Catalysis</i> , 2020 , 10, 375-379	13.1	22
90	Mechanistic insights of methane conversion to ethylene over gallium oxide and gallium nitride using density functional theory. <i>Molecular Catalysis</i> , 2020 , 482, 110606	3.3	7
89	A critical literature review of the advances in methane dehydroaromatization over multifunctional metal-promoted zeolite catalysts. <i>Applied Catalysis A: General</i> , 2020 , 608, 117870	5.1	21
88	Dehydroaromatization of methane over Mo/ZSM-5 zeolites: influence of aluminum distribution in the crystals. 2020 , 131, 889-904		2
87	Understanding the Deactivation Phenomena of Small-Pore Mo/H-SSZ-13 during Methane Dehydroaromatization. 2020 , 25,		1
86	Modern Catalysts and Methods of Nonoxidative Methane Conversion. 2020 , 90, 1104-1119		2
85	Ethylene Dehydroaromatization over Ga-ZSM-5 Catalysts: Nature and Role of Gallium Speciation. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 19592-19601	16.4	14
84	Ethylene Dehydroaromatization over Ga-ZSM-5 Catalysts: Nature and Role of Gallium Speciation. <i>Angewandte Chemie</i> , 2020 , 132, 19760-19769	3.6	
83	Cooperative Catalysis by Multiple Active Centers in Nonoxidative Conversion of Methane. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 13656-13663	3.8	12
82	Initial Carbon-Carbon Bond Formation during the Early Stages of Methane Dehydroaromatization. <i>Angewandte Chemie</i> , 2020 , 132, 16884	3.6	
81	Improved ethane conversion to ethylene and aromatics over a Zn/ZSM-5 and CaMnO ₃ -Zr composite catalyst. <i>Journal of Energy Chemistry</i> , 2020 , 51, 161-166	12	1
80	Initial Carbon-Carbon Bond Formation during the Early Stages of Methane Dehydroaromatization. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 16741-16746	16.4	15
79	Effect of Si/Al ratio of ZSM-5 support on structure and activity of Mo species in methane dehydroaromatization. <i>Fuel</i> , 2020 , 278, 118290	7.1	11

78	Studies on molybdenum carbide supported HZSM-5 (Si/Al=23, 30, 50 and 80) catalysts for aromatization of methane. <i>Arabian Journal of Chemistry</i> , 2020 , 13, 5199-5207	5.9	3
77	Predicted Influence of Plasma Activation on Nonoxidative Coupling of Methane on Transition Metal Catalysts. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 6043-6054	8.3	18
76	Reactivity, Selectivity, and Stability of Zeolite-Based Catalysts for Methane Dehydroaromatization. <i>Advanced Materials</i> , 2020 , 32, e2002565	24	30
75	Proton-conducting oxides for energy conversion and storage. <i>Applied Physics Reviews</i> , 2020 , 7, 011314	17.3	92
74	Methane conversion to ethylene over GaN catalysts. Effect of catalyst nitridation. <i>Applied Catalysis A: General</i> , 2020 , 595, 117430	5.1	15
73	Multilayered Two-Dimensional V ₂ CT _x MXene for Methane Dehydroaromatization. <i>ChemCatChem</i> , 2020 , 12, 3639-3643	5.2	16
72	Direct conversion of syngas to aromatics: A review of recent studies. <i>Chinese Journal of Catalysis</i> , 2020 , 41, 561-573	11.3	24
71	Reactivity of Methane and Benzene over Metal/MFI Zeolite Analyzed with Temperature-Programmed Reaction Technique. <i>ChemCatChem</i> , 2020 , 12, 2333-2340	5.2	1
70	Promotional effect of Au on Fe/HZSM-5 catalyst for methane dehydroaromatization. <i>Fuel</i> , 2020 , 274, 117852	7.1	11
69	Probing cobalt localization on HZSM-5 for efficient methane dehydroaromatization catalysts. <i>Journal of Catalysis</i> , 2020 , 387, 102-118	7.3	25
68	Multiple Methane Activation Pathways on Ga-modified ZSM-5 Zeolites Revealed by Solid-State NMR Spectroscopy. <i>ChemCatChem</i> , 2020 , 12, 3880-3889	5.2	4
67	Removal of tar derived from biomass gasification via synergy of non-thermal plasma and catalysis. <i>Science of the Total Environment</i> , 2020 , 721, 137671	10.2	10
66	Catalysis and the Mechanism of Methane Conversion to Chemicals. 2020 ,		3
65	Methane-to-aromatics in a gas recycle methane reactor/hydrogen membrane separator. <i>Catalysis Today</i> , 2021 , 365, 80-87	5.3	5
64	An integrated methane dehydroaromatization and chemical looping process. <i>Chemical Engineering Journal</i> , 2021 , 406, 127168	14.7	4
63	Activation and conversion of alkanes in the confined space of zeolite-type materials. <i>Chemical Society Reviews</i> , 2021 , 50, 8511-8595	58.5	23
62	Recent advances in heterogeneous catalysis for the nonoxidative conversion of methane. <i>Chemical Science</i> , 2021 , 12, 12529-12545	9.4	10
61	Mo-Modified ZSM-5 zeolite with intergrowth crystals for high-efficiency catalytic xylene isomerization. <i>Catalysis Science and Technology</i> , 2021 , 11, 4831-4837	5.5	2

60	Ultrasound-Assisted Preparation of Mo/ZSM-5 Zeolite Catalyst for Non-Oxidative Methane Dehydroaromatization. <i>Catalysts</i> , 2021 , 11, 313	4	2
59	Codoping Mg-Mn Based Oxygen Carrier with Lithium and Tungsten for Enhanced C ₂ Yield in a Chemical Looping Oxidative Coupling of Methane System. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 2651-2660	8.3	6
58	Nonoxidative Methane Conversion on Granulated Mo/ZSM-5 Catalysts. <i>Petroleum Chemistry</i> , 2021 , 61, 370-377	1.1	3
57	From bench scale to pilot plant: A 150x scaled-up configuration of a microwave-driven structured reactor for methane dehydroaromatization. <i>Catalysis Today</i> , 2021 ,	5.3	5
56	Influence of Preparation Conditions on the Catalytic Performance of Mo/H-ZSM-5 for Methane Dehydroaromatization. <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 5465	2.6	2
55	Assessment of the current state of research and achievements in the field of catalytic processing of natural gas into valuable chemical products. <i>Kataliz V Promyshlennosti</i> , 2021 , 21, 197-217	0.3	
54	Light-Induced Nonoxidative Coupling of Methane Using Stable Solid Solutions. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 20760-20764	16.4	4
53	Light-Induced Nonoxidative Coupling of Methane Using Stable Solid Solutions. <i>Angewandte Chemie</i> , 2021 , 133, 20928-20932	3.6	1
52	Initial Steps in CH ₄ Pyrolysis on Cu and Ni. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 18665-18672	3.8	1
51	A core-shell structured Zn/SiO ₂ @ZSM-5 catalyst: Preparation and enhanced catalytic properties in methane co-aromatization with propane. <i>Applied Catalysis B: Environmental</i> , 2021 , 293, 120241	21.8	12
50	Illuminating the Intrinsic Effect of Water Co-feeding on Methane Dehydroaromatization: A Comprehensive Study. <i>ACS Catalysis</i> , 2021 , 11, 11671-11684	13.1	4
49	Improved protocol for optimizing Mo/ZSM-5 catalyst for methane aromatization. <i>Molecular Catalysis</i> , 2021 , 515, 111875	3.3	1
48	Enhanced reactivity and stability in methane dehydro-aromatization over Mo/HZSM-5 physically mixed with NiO. <i>Applied Catalysis B: Environmental</i> , 2021 , 296, 120377	21.8	5
47	Thermocatalytic Conversion of Natural Gas to Petrochemical Feedstocks Via Non-oxidative Methods: Theoretical and Experimental Approaches. 2021 , 229-252		
46	Methane activation by ZSM-5-supported transition metal centers. <i>Chemical Society Reviews</i> , 2021 , 50, 1251-1268	58.5	34
45	Evaluation of Permeation Mechanisms of Silylated Ionic Liquid-derived Organosilica Membranes for Toluene/Methane Separation. <i>Journal of the Japan Petroleum Institute</i> , 2020 , 63, 213-220	1	4
44	Silica-Confined Two-Atom Single-Cluster Catalyst for Direct Nonoxidative Conversion of Methane: A DFT Study. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 23212-23218	3.8	2
43	X-ray Absorption Spectroscopy Investigation into the Origins of Heterogeneity in Silica-Supported Dioxomolybdates. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 23115-23125	3.8	0

42	Reaction paths of methane activation and oxidation of surface intermediates over NiO on Ceria-Zirconia catalysts studied by In-situ FTIR spectroscopy. <i>Journal of Catalysis</i> , 2021 , 404, 334-347	7.3	2
41	Basic Engineering of a Two-Stage Process for Co-Upgrading Natural Gas and Petroleum Coke. <i>Advances in Chemical Engineering and Science</i> , 2015 , 05, 129-133	0.4	
40	Overview of Direct Methane Conversion to Chemicals with C-D and C-H Bonds. 2020 , 1-21		
39	KINETICS OF THE CATALYTIC DEHYDROAROMATIZATION OF METHANE. <i>Chronos Journal</i> , 2020 ,	0.3	
38	Conversion of Methane to Aromatic Hydrocarbons. 2020 , 127-163		
37	Inorganic Catalysis for Methane Conversion to Chemicals. 2021 ,		
36	Nonoxidative methane conversion over Mo/HZSM-5 catalysts with a mesoporous structure. 2020 ,		
35	Conversion of methane and C5-hydrocarbons over platinum-alumina catalyst under non-oxidative conditions. 2020 ,		
34	Preparation and investigation of properties of methane dehydroaromatization catalysts based on ZSM-5 zeolites and Mo nanopowders. 2020 ,		
33	Direct Systems: Methane Dehydroaromatization (MDA) and the Oxidative Coupling of Methane (OCM). 2022 , 43-69		
32	Understanding the Preparation and Reactivity of Mo/ZSM-5 Methane Dehydroaromatization Catalysts. <i>Chemistry - A European Journal</i> , 2021 ,	4.8	3
31	Direct Non-Oxidative Conversion of Methane over Metal-Containing Zeolites: Main Strategies for Shifting the Thermodynamic Equilibrium (A Review). <i>Petroleum Chemistry</i> , 2022 , 62, 280	1.1	2
30	Direct Conversions of Methane via Homogeneous Processes. 2022 , 1-30		1
29	Catalytic synergistic effect of bis-ZSM-5 zeolite with different crystal sizes for xylene isomerization. <i>Microporous and Mesoporous Materials</i> , 2022 , 332, 111718	5.3	2
28	How do the products in methane dehydroaromatization impact the distinct stages of the reaction?. <i>Applied Catalysis B: Environmental</i> , 2022 , 309, 121274	21.8	1
27	Promoters for Improvement of the Catalyst Performance in Methane Valorization Processes. <i>Eurasian Chemico-Technological Journal</i> , 2021 , 23, 147	0.8	0
26	Technoeconomic Evaluation of the Industrial Implementation of Catalytic Direct Nonoxidative Methane Coupling.. <i>Industrial & Engineering Chemistry Research</i> , 2022 , 61, 566-579	3.9	0
25	Table_1.DOCX. 2019 ,		

24	Role of magnetization on catalytic pathways of non-oxidative methane activation on neutral iron carbide clusters.. <i>Physical Chemistry Chemical Physics</i> , 2022 ,	3.6	0
23	State-of-the-Art and Achievements in the Catalytic Conversion of Natural Gas into Valuable Chemicals. <i>Catalysis in Industry</i> , 2022 , 14, 11-30	0.8	
22	Methane Activation Over Zeolites. 2022 , 129-181		
21	Novel approach to integrate CO ₂ utilization coupled with direct methane conversion to C ₂ products using solid oxide electrolysis cell. <i>Chemical Engineering Journal</i> , 2022 , 444, 136619	14.7	1
20	How does the balance of metal and acid functions on the benchmark Mo/ZSM-5 catalyst drive the Methane dehydroaromatization reaction?. <i>Catalysis Today</i> , 2022 ,	5.3	1
19	Deactivation resistance effect of alkane co-feeding on methane dehydroaromatization and active GaO ⁺ species in Ga/HZSM-5 for BTX production. <i>Fuel</i> , 2022 , 325, 124939	7.1	0
18	Electrocatalytic methane oxidation to ethanol on iron-nickel hydroxide nanosheets. <i>Applied Catalysis B: Environmental</i> , 2022 , 316, 121657	21.8	2
17	Mechanisms for direct methane conversion to oxygenates at low temperature. <i>Coordination Chemistry Reviews</i> , 2022 , 470, 214691	23.2	
16	System-level analysis for continuous BTX production from shale gas over Mo/HZSM-5 catalyst: Promotion effects of CO ₂ co-feeding on process economics and environment. <i>Chemical Engineering Journal</i> , 2022 , 450, 137992	14.7	0
15	Introducing a Novel Method for Probing Accessibility, Local Environment, and Spatial Distribution of Oxidative Sites on Solid Catalysts Using Trimethylphosphine. 2022 , 126, 13213-13223		0
14	First-Generation Organic Reaction Intermediates in Zeolite Chemistry and Catalysis.		5
13	Formulation of two monofunctional catalysts for CH ₄ upgrading. 2022 , 644, 118814		1
12	Reaction regeneration cycle of Mo/HZSM-5 catalyst in methane dehydroaromatization with the addition of oxygen-containing components. 2022 , 647, 118916		0
11	Size-Dependent Catalytic Hydrogen Production via Methane Decomposition and Aromatization at a Low-Temperature Using Co, Ni, Cu, Mo, and Ru Nanometals.		0
10	Catalytic Routes for Direct Methane Conversion to Hydrocarbons and Hydrogen: Current State and Opportunities. 14533-14558		0
9	Mo, Cu Bimetallic Loaded Hierarchical Pore ZSM-5 Catalysts for the Hydrothermal Aromatization of Algal Bio-Oil Model Compounds.		0
8	Acidity regulation for improved activity of Mo/HZSM-5 catalyst in methane dehydroaromatization. 2023 , 266, 118289		0
7	Review of Catalysts and Reactors Used for Natural and Associated Petroleum Gas Dehydroaromatization. 2022 , 58, 735-740		0

6	Transition-Metal Catalysts for Methane Dehydroaromatization (Mo, Re, Fe): Activity, Stability, Active Sites, and Carbon Deposits. 1-10	0
5	Protonic Ceramic Electrochemical Cells for Synthesizing Sustainable Chemicals and Fuels. 2206478	1
4	Effect of silicon carbide-based iron catalyst on reactor optimization for non-oxidative direct conversion of methane. 2023 , 81, 519-532	0
3	BTXfrom Light Hydrocarbons. 2023 , 71-110	0
2	Frontiers in Arene Chemistry: Direct Methylation of Benzene with Methane on Metal-Loaded Zeolites. 2023 , 747-767	0
1	Understanding W/H-ZSM-5 catalysts for the dehydroaromatization of methane.	0