

# Direct Conversion of Methane to Methanol under Mild Conditions beyond

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Selective anaerobic oxidation of methane enables direct synthesis of methanol. <i>Science</i> , 2017, 356, 523-527.	12.6	646
2	Methane to Methanol: Structure-Activity Relationships for Cu-CHA. <i>Journal of the American Chemical Society</i> , 2017, 139, 14961-14975.	13.7	277
3	Electronic Structure of the $[\text{Cu}_3(\frac{1}{4}\text{O})_3]^{2+}$ Cluster in Mordenite Zeolite and Its Effects on the Methane to Methanol Oxidation. <i>Journal of Physical Chemistry C</i> , 2017, 121, 22295-22302.	3.1	74
4	Computational Screening of Bimetal-Functionalized $\text{Zr}_6\text{O}_8$ MOF Nodes for Methane C-H Bond Activation. <i>Inorganic Chemistry</i> , 2017, 56, 8739-8743.	4.0	46
5	Composition-driven Cu-speciation and reducibility in Cu-CHA zeolite catalysts: a multivariate XAS/FTIR approach to complexity. <i>Chemical Science</i> , 2017, 8, 6836-6851.	7.4	163
6	Selective Activation of Methane on Single-Atom Catalyst of Rhodium Dispersed on Zirconia for Direct Conversion. <i>Journal of the American Chemical Society</i> , 2017, 139, 17694-17699.	13.7	297
7	Electronic Effects on Room-Temperature, Gas-Phase C-H Bond Activations by Cluster Oxides and Metal Carbides: The Methane Challenge. <i>Journal of the American Chemical Society</i> , 2017, 139, 17201-17212.	13.7	149
8	Applications of Zeolites in Sustainable Chemistry. <i>CheM</i> , 2017, 3, 928-949.	11.7	518
9	Aerobic Electrochemical Oxygenation of Light Hydrocarbons Catalyzed by an Iron-Tungsten Oxide Molecular Capsule. <i>ACS Catalysis</i> , 2018, 8, 3232-3236.	11.2	16
10	Methanol-essential growth of <i>Escherichia coli</i> . <i>Nature Communications</i> , 2018, 9, 1508.	12.8	119
11	Synthese von Zeolithen aus vorkristallisierten Bausteinen: Architektur im Nanomaßstab. <i>Angewandte Chemie</i> , 2018, 130, 15554-15578.	2.0	14
12	Metal Catalysts for Heterogeneous Catalysis: From Single Atoms to Nanoclusters and Nanoparticles. <i>Chemical Reviews</i> , 2018, 118, 4981-5079.	47.7	3,103
13	Chemistry in Confinement: Copper and Palladium Catalyzed Ecofriendly Organic Transformations within Porous Frameworks. <i>Chemical Record</i> , 2018, 18, 506-526.	5.8	4
14	General Aspects on Structure and Reactivity of Framework and Extra-framework Metals in Zeolite Materials. <i>Structure and Bonding</i> , 2018, , 53-90.	1.0	7
15	A high performance catalyst for methane conversion to methanol: graphene supported single atom Co. <i>Chemical Communications</i> , 2018, 54, 2284-2287.	4.1	57
16	Building Zeolites from Precrystallized Units: Nanoscale Architecture. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 15330-15353.	13.8	126
17	Performance of Density Functional Theory for Predicting Methane-to-Methanol Conversion by a Tri-Copper Complex. <i>Journal of Physical Chemistry C</i> , 2018, 122, 1024-1036.	3.1	23
18	Iron and Copper Active Sites in Zeolites and Their Correlation to Metalloenzymes. <i>Chemical Reviews</i> , 2018, 118, 2718-2768.	47.7	263

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19	Effects of methylating agent and Brønsted acidity on methylation activity of olefins in CHA-structured zeolites: A periodic DFT study. <i>Molecular Catalysis</i> , 2018, 446, 106-114.	2.0	4
20	Cation-exchanged zeolites for the selective oxidation of methane to methanol. <i>Catalysis Science and Technology</i> , 2018, 8, 114-123.	4.1	135
21	Immobilization of Molecular Catalysts for Enhanced Redox Catalysis. <i>ChemCatChem</i> , 2018, 10, 1686-1702.	3.7	35
22	Synthesis of New Microporous Zincosilicates with CHA Zeolite Topology as Efficient Platforms for Ion-Exchange of Divalent Cations. <i>Chemistry - A European Journal</i> , 2018, 24, 808-812.	3.3	15
23	Separation of C2 hydrocarbons from methane in a microporous metal-organic framework. <i>Journal of Solid State Chemistry</i> , 2018, 258, 346-350.	2.9	41
24	5. CO <sub>2</sub> -based hydrogen storage – hydrogen liberation from methanol/water mixtures and from anhydrous methanol. , 2018, , 125-182.		0
25	Room-Temperature Conversion of Methane Becomes True. <i>Joule</i> , 2018, 2, 1399-1401.	24.0	14
28	Preassembly Strategy To Fabricate Porous Hollow Carbonitride Spheres Inlaid with Single Cu <sup>3+</sup> Sites for Selective Oxidation of Benzene to Phenol. <i>Journal of the American Chemical Society</i> , 2018, 140, 16936-16940.	13.7	156
29	Reaction of Methane with MO <sub>x</sub> /CeO <sub>2</sub> (M = Fe, Ni, and Cu) Catalysts: In Situ Studies with Time-Resolved X-ray Diffraction. <i>Journal of Physical Chemistry C</i> , 2018, 122, 28739-28747.	3.1	15
30	Methane Activation by Gas Phase Atomic Clusters. <i>Accounts of Chemical Research</i> , 2018, 51, 2603-2610.	15.6	94
31	Performance of density functional theory for describing hetero-metallic active site motifs for methane-to-methanol conversion in metal-exchanged zeolites. <i>Journal of Computational Chemistry</i> , 2018, 39, 2667-2678.	3.3	8
32	The Nuclearity of the Active Site for Methane to Methanol Conversion in Cu-Mordenite: A Quantitative Assessment. <i>Journal of the American Chemical Society</i> , 2018, 140, 15270-15278.	13.7	177
33	Achieving Atomic Dispersion of Highly Loaded Transition Metals in Small-Pore Zeolite SSZ-13: High-Capacity and High-Efficiency Low-Temperature CO and Passive NO <sub>x</sub> Adsorbers. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 16672-16677.	13.8	129
34	Achieving Atomic Dispersion of Highly Loaded Transition Metals in Small-Pore Zeolite SSZ-13: High-Capacity and High-Efficiency Low-Temperature CO and Passive NO <sub>x</sub> Adsorbers. <i>Angewandte Chemie</i> , 2018, 130, 16914-16919.	2.0	34
35	Synthetic Fe/Cu Complexes: Toward Understanding Heme-Copper Oxidase Structure and Function. <i>Chemical Reviews</i> , 2018, 118, 10840-11022.	47.7	166
36	An antiferromagnetic metalloring pyrazolate (Pz) framework with [Cu <sub>12</sub> ( $\frac{1}{4}$ -OH) <sub>12</sub> (Pz) <sub>12</sub> ] nodes for separation of C <sub>2</sub> H <sub>2</sub> /CH <sub>4</sub> mixture. <i>Journal of Materials Chemistry A</i> , 2018, 6, 19681-19688.	10.3	21
37	Direct Conversion of Methane to Methanol on Ni-Ceria Surfaces: Metal-Support Interactions and Water-Enabled Catalytic Conversion by Site Blocking. <i>Journal of the American Chemical Society</i> , 2018, 140, 7681-7687.	13.7	141
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45	Effect of Brønsted acid sites on the direct conversion of methane into methanol over copper-exchanged mordenite. Catalysis Science and Technology, 2018, 8, 4141-4150.	4.1	56
46	The Effect of the Active Site Structure on the Activity of Copper Mordenite in the Aerobic and Anaerobic Conversion of Methane into Methanol. Angewandte Chemie, 2018, 130, 9044-9048.	2.0	29
47	The Effect of the Active Site Structure on the Activity of Copper Mordenite in the Aerobic and Anaerobic Conversion of Methane into Methanol. Angewandte Chemie - International Edition, 2018, 57, 8906-8910.	13.8	130
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57	Mechanistic Insights on the Direct Conversion of Methane into Methanol over Cu/Na <sup>+</sup> ZSM-5 Zeolite: Evidence from EPR and Solid-State NMR. ACS Catalysis, 2019, 9, 8677-8681.	11.2	29
58	Tuning the C2/C1 Hydrocarbon Separation Performance in a BioMOF by Surface Functionalization. European Journal of Inorganic Chemistry, 2019, 2019, 4205-4210.	2.0	21
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76	Methane-to-Methanol: Activity Descriptors in Copper-Exchanged Zeolites for the Rational Design of Materials. <i>ACS Catalysis</i> , 2019, 9, 6293-6304.	11.2	71
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102	Pathways of Methane Transformation over Copper-Exchanged Mordenite as Revealed by In-Situ NMR and IR Spectroscopy. <i>Angewandte Chemie</i> , 2020, 132, 920-928.	2.0	34
103	Single Chromium Atoms Supported on Titanium Dioxide Nanoparticles for Synergic Catalytic Methane Conversion under Mild Conditions. <i>Angewandte Chemie</i> , 2020, 132, 1232-1235.	2.0	25
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113	Low Temperature Activation of Methane on Metal-Oxides and Complex Interfaces: Insights from Surface Science. <i>Accounts of Chemical Research</i> , 2020, 53, 1488-1497.	15.6	66
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115	Surface Coordination Chemistry of Atomically Dispersed Metal Catalysts. <i>Chemical Reviews</i> , 2020, 120, 11810-11899.	47.7	325
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134	Direct synthesis of oxygenates via partial oxidation of methane in the presence of O <sub>2</sub> and H <sub>2</sub> over a combination of Fe-ZSM-5 and Pd supported on an acid-functionalized porous polymer. <i>Applied Catalysis A: General</i> , 2020, 602, 117711.	4.3	19
135	Active sites and mechanisms in the direct conversion of methane to methanol using Cu in zeolitic hosts: a critical examination. <i>Chemical Society Reviews</i> , 2020, 49, 1449-1486.	38.1	170
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313	Research progress in single-atom catalysts for the selective oxidation of methane. <i>Scientia Sinica Chimica</i> , 2024, 54, 309-337.	0.4	0
314	Competition between Mononuclear and Binuclear Copper Sites across Different Zeolite Topologies. <i>Jacs Au</i> , 2024, 4, 197-215.	7.9	1
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