

A combined experimental and computational study of the
dehydration of 5-hydroxymethylfurfural in dimethylsulfoxide
over niobic acid, or sulfuric acid catalysts

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Valorization of food waste into hydroxymethylfurfural: Dual role of metal ions in successive conversion steps. <i>Bioresource Technology</i> , 2016, 219, 338-347.	4.8	98
2	One-pot synthesis of 2,5-diformylfuran from fructose using a magnetic bi-functional catalyst. <i>RSC Advances</i> , 2016, 6, 25678-25688.	1.7	41
3	Microwave-assisted dehydration of fructose and inulin to HMF catalyzed by niobium and zirconium phosphate catalysts. <i>Applied Catalysis B: Environmental</i> , 2017, 206, 364-377.	10.8	101
4	Acidic Zeolite β as a Highly Efficient Catalyst for Dehydration of Fructose to 5-Hydroxymethylfurfural in Ionic Liquid. <i>ChemSusChem</i> , 2017, 10, 1669-1674.	3.6	52
5	Catalytic Dehydration of Fructose into 5-Hydroxymethylfurfural by a DMSO-like Polymeric Solid Organocatalyst. <i>ChemCatChem</i> , 2017, 9, 3218-3225.	1.8	25
6	Conversion of biomass to hydroxymethylfurfural: A review of catalytic systems and underlying mechanisms. <i>Bioresource Technology</i> , 2017, 238, 716-732.	4.8	400
7	The catalytic effect of Al-KIT-5 and KIT-5-SO ₃ H on the conversion of fructose to 5-hydroxymethylfurfural. <i>Research on Chemical Intermediates</i> , 2017, 43, 5507-5521.	1.3	15
8	Synthesis of flake-like mesoporous silicate having multiple metal centers and catalytic application for conversion of D-(-)-fructose into fine chemicals. <i>Materials Chemistry and Physics</i> , 2017, 200, 295-307.	2.0	5
9	Ordered mesoporous Nb μ -W oxides for the conversion of glucose to fructose, mannose and 5-hydroxymethylfurfural. <i>Applied Catalysis B: Environmental</i> , 2017, 200, 611-619.	10.8	93
10	Solvent-enabled control of reactivity for liquid-phase reactions of biomass-derived compounds. <i>Nature Catalysis</i> , 2018, 1, 199-207.	16.1	211
11	Synthesis of HMF from fructose using Purolite \AA strong acid catalyst: Comparison between BTR and PBR reactor type for kinetics data acquisition. <i>Molecular Catalysis</i> , 2018, 458, 180-188.	1.0	21
12	Universal kinetic solvent effects in acid-catalyzed reactions of biomass-derived oxygenates. <i>Energy and Environmental Science</i> , 2018, 11, 617-628.	15.6	122
13	Tin phosphate as a heterogeneous catalyst for efficient dehydration of glucose into 5-hydroxymethylfurfural in ionic liquid. <i>Applied Catalysis B: Environmental</i> , 2018, 224, 183-193.	10.8	142
14	Catalytic Conversion of Carbohydrates to Initial Platform Chemicals: Chemistry and Sustainability. <i>Chemical Reviews</i> , 2018, 118, 505-613.	23.0	898
15	Synthesis of a Homogeneous Propyl Sulfobetaine-Tungstophosphoric Acid Catalyst with Tunable Acidic Strength and Its Application to Waste Wood Hydrolysis. <i>Catalysis Letters</i> , 2018, 148, 3269-3279.	1.4	0
16	Unifying Mechanistic Analysis of Factors Controlling Selectivity in Fructose Dehydration to 5-Hydroxymethylfurfural by Homogeneous Acid Catalysts in Aprotic Solvents. <i>ACS Catalysis</i> , 2018, 8, 5591-5600.	5.5	73
17	Highly Selective Conversion of HMF to 1-hydroxy-2,5-hexanedione on Pd/MIL-101(Cr). <i>ChemistrySelect</i> , 2019, 4, 11165-11171.	0.7	17
18	Condensed Phase Deactivation of Solid Brønsted Acids in the Dehydration of Fructose to Hydroxymethylfurfural. <i>ACS Catalysis</i> , 2019, 9, 11568-11578.	5.5	19

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19	Highly active niobium-loaded montmorillonite catalysts for the production of 5-hydroxymethylfurfural from glucose. <i>Green Chemistry</i> , 2019, 21, 3930-3939.	4.6	60
20	Efficient conversion of fructose to 5-hydroxymethylfurfural by functionalized Al_2O_3 beads. <i>Applied Organometallic Chemistry</i> , 2019, 33, e4821.	1.7	8
21	Examining Acid Formation During the Selective Dehydration of Fructose to 5-Hydroxymethylfurfural in Dimethyl Sulfoxide and Water. <i>ChemSusChem</i> , 2019, 12, 2211-2219.	3.6	35
22	Efficient catalytic conversion of glucose into 5-hydroxymethylfurfural by aluminum oxide in ionic liquid. <i>Applied Catalysis B: Environmental</i> , 2019, 253, 1-10.	10.8	85
23	Dehydration of fructose into 5-hydroxymethylfurfural in a biphasic system using EDTA as a temperature-responsive catalyst. <i>Applied Catalysis A: General</i> , 2019, 569, 93-100.	2.2	23
24	Controlling the Reaction Networks for Efficient Conversion of Glucose into 5-Hydroxymethylfurfural. <i>ChemSusChem</i> , 2020, 13, 4812-4832.	3.6	73
25	Efficacy of clay catalysts for the dehydration of fructose to 5-hydroxymethyl furfural in biphasic medium. <i>Journal of Porous Materials</i> , 2020, 27, 1691-1700.	1.3	12
26	Recent advances in catalytic and autocatalytic production of biomass-derived 5-hydroxymethylfurfural. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 134, 110317.	8.2	69
27	Self-assembled tetramethyl cucurbit[6]uril-polyoxometalate nanocubes as efficient and recyclable catalysts for the preparation of propyl gallate. <i>New Journal of Chemistry</i> , 2020, 44, 11895-11900.	1.4	9
28	Influence of Dimethylsulfoxide and Dioxygen in the Fructose Conversion to 5-Hydroxymethylfurfural Mediated by Glycerol's Acidic Carbon. <i>Frontiers in Chemistry</i> , 2020, 8, 263.	1.8	22
29	Mechanistic aspects of saccharide dehydration to furan derivatives for reaction media design. <i>RSC Advances</i> , 2020, 10, 23720-23742.	1.7	24
30	Preparation of 1-Hydroxy-2,5-hexanedione from HMF by the Combination of Commercial Pd/C and Acetic Acid. <i>Molecules</i> , 2020, 25, 2475.	1.7	17
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32	5-Hydroxymethylfurfural Synthesis from Monosaccharides by a Biphasic Reaction-Extraction System Using a Microreactor and Extractor. <i>ACS Omega</i> , 2020, 5, 9384-9390.	1.6	26
33	Ultra-Fast Selective Fructose Dehydration Promoted by a Kraft Lignin Sulfonated Carbon Under Microwave Heating. <i>Catalysis Letters</i> , 2021, 151, 398-408.	1.4	5
34	Biorefinery roadmap based on catalytic production and upgrading 5-hydroxymethylfurfural. <i>Green Chemistry</i> , 2021, 23, 119-231.	4.6	223
35	Lattice-water-induced acid sites in tungsten oxide hydrate for catalyzing fructose dehydration. <i>Catalysis Communications</i> , 2021, 149, 106254.	1.6	9
36	Emerging heterogeneous catalysts for biomass conversion: studies of the reaction mechanism. <i>Chemical Society Reviews</i> , 2021, 50, 11270-11292.	18.7	102

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37	Waste Polyethylene Terephthalate Derived Carbon Dots for Separable Production of 5-Hydroxymethylfurfural at Low Temperature. <i>Catalysis Letters</i> , 2021, 151, 2436-2444.	1.4	14
38	Insight into Fructose Dehydration over Lewis Acid $\text{Cu}_2\text{P}_2\text{O}_7$ Catalyst. <i>ChemNanoMat</i> , 2021, 7, 292-298.	1.5	6
39	Mechanistic studies on the formation of 5-hydroxymethylfurfural from the sugars fructose and glucose. <i>Pure and Applied Chemistry</i> , 2021, 93, 463-478.	0.9	10
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41	Leaf-derived sulfonated carbon dots: efficient and recoverable catalysts to synthesize 5-hydroxymethylfurfural from fructose. <i>Materials Today Chemistry</i> , 2021, 20, 100423.	1.7	8
42	Conversion of plant biomass to furan derivatives and sustainable access to the new generation of polymers, functional materials and fuels. <i>Russian Chemical Reviews</i> , 2017, 86, 357-387.	2.5	85
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45	Cellulose interunit linkages and model compounds. , 2022, , 41-52.		0
46	Efficient 5-Hydroxymethylfurfural Synthesis from Carbohydrates and Food Wastes in Aqueous-Natural Deep Eutectic Solvent (A-Nades) with Robust Al_2O_3 or $\text{Al}(\text{OH})_3$. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
47	Efficient 5-hydroxymethylfurfural synthesis from carbohydrates and food wastes in aqueous-natural deep eutectic solvent (A-NADES) with robust Al_2O_3 or $\text{Al}(\text{OH})_3$. <i>Fuel</i> , 2022, 326, 125062.	3.4	7
48	Insights into pathways and solvent effects of fructose dehydration to 5-hydroxymethylfurfural in acetone-water solvent. <i>Chemical Engineering Science</i> , 2023, 267, 118352.	1.9	5
49	One Pot Synthesis of Cubic Mesoporous Silica KIT-6 Functionalized with Sulfonic Acid for Catalytic Dehydration of Fructose to 5-Hydroxymethylfurfural. <i>ChemistrySelect</i> , 2022, 7, .	0.7	1
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51	Hybrid organic-inorganic nanoparticles with associated functionality for catalytic transformation of biomass substrates. <i>RSC Advances</i> , 2023, 13, 10144-10156.	1.7	0
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