

Supporting Information

H-Beta Zeolite as Catalyst for the Conversion of Carbohydrates into 5-Hydroxymethylfurfural: The Role of Calcination Temperature

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Table S1. Performance comparison of catalysts for the isomerization of glucose to fructose.

Catalyst	Lewis acid sites ($\mu\text{mol/g}$)	Reaction temperature ($^{\circ}\text{C}$)	Reaction time (h)	Fructose selectivity (%)
H-Beta	259	120	2	17
		130	2	29
		140	2	25
		130	1	16
		130	3	25
H-Beta(350)	228	120	2	14
		130	2	24
		140	2	21
		130	1	15
		130	3	22
H-Beta(550)	153	130	2	13
		140	2	19
		150	2	14
		140	1	11
		140	3	12
H-Beta(750)	90	130	2	9
		140	2	15
		150	2	13
		140	1	10
		140	3	11
H-Beta(1000)	70	130	2	6
		140	2	10
		150	2	11
		150	1	7
		150	3	9

Reaction condition: glucose (100 mg), catalyst (30 mg), H_2O (3 mL).

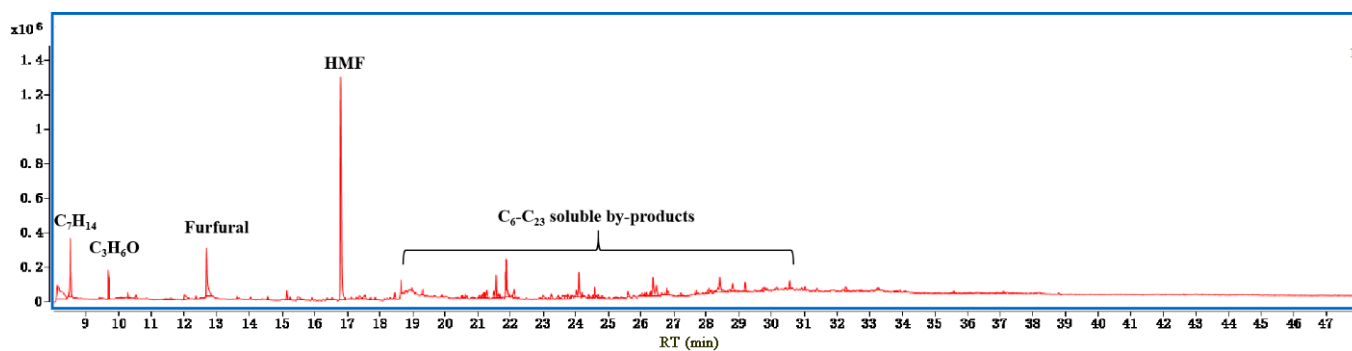


Figure S1. GC-MS analysis of the THF phase recovered after the reaction.

Reaction condition: glucose (100 mg), H-Beta zeolite catalyst (30 mg), NaCl (20 mg), reaction

H₂O (1 mL), THF (4 mL), temperature (170 °C), reaction time (2 h).