

Supporting Information

Conversion of CO₂ hydrogenation to gasoline over tandem Fe/C and HZSM-5 catalysts

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Table S1 Summary of iron-based catalysts for CO₂ hydrogenation to gasoline.

Catalyst	T (°C)	P (MPa)	CO ₂ conversion (%)	CO selectivity (%)	C ₅ -C ₁₁ sel. (%)	STY _{GL} (μmol _{CO2} g _{Fe} ⁻¹ s ⁻¹)	Lifetime (h)	Ref.
Fe-Zn-Zr/HZSM-5	360	5	19.5	57.4	52c	8.4	6	[1]
Fe-Ce/KY	300	10	20.1	34.6	49.6c	1.7	-	[2]
Fe/RbY	300	1	17.2	31.6	54.4c	2	24	[3]
Fe-Cu-Na/HZSM-5	250	2	12.3	19.6	29.2c	1.6	-	[4]
Fe-Zn-Zr/HY	340	5	22.4	50.4	14.3c	0.5	-	[5]
Na-Fe/HZSM-5	340	1	30.9	26.4	44.3c	2.9	40	[6]
Fe-K/a-Al ₂ O ₃ &P/ZSM-5	400	3	36.4	10.2	49.6c	22.3	-	[7]
Na-Fe ₃ O ₄ /HZSM-5 (25)-Si-1	320	2	28.5	15	61.1c	2.3	50	[8]
K-Fe/C-K+ZSM-5	320	2.5	34.5	18.8	70.1c	8.1	40	[9]
Na-Fe ₃ O ₄ /HY	320	3	34.1	13.7	47.9	4.5	-	[10]
Na-Fe ₃ O ₄ /HZSM-5	320	3	26.8	19.8	64.3	4.4	>180	[10]
Na-Fe ₃ O ₄ /HMCM-22	320	3	34.8	13.4	56.8	5.4	<12	[11]
Fe/C HZSM-5	320	2	31.9	34.6	58.6	91.2	180	This work

c C₅⁺ sel. (%).

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