

## Supporting Information

### Selective Conversion of Glycerol to Methanol over CaO-Modified HZSM-5 Zeolite

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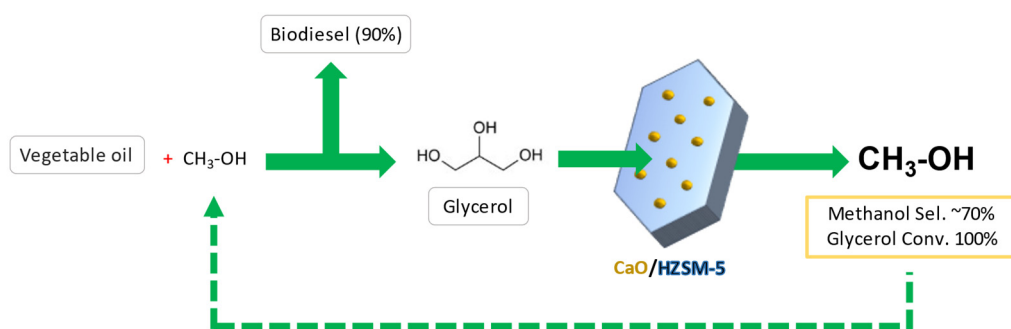
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**Figure S1.** The scheme of selective conversion of glycerol to methanol over CaO-modified HZSM-5 Zeolite.

**Table S1.** Comparison of the results in the production of methanol by various heterogeneous catalysts.

Catalyst	Reaction conditions	Glycerol Conv. (%)	MeOH Selectivity (%)	Ref.
CaO	P = 1 bar, T = 320 °C, 10% glycerol aqueous solution 0.016 mL min <sup>-1</sup> , carrier gas (N <sub>2</sub> ) 100 mL min <sup>-1</sup> , 0.5 g catalyst, fixed-bed reactor	38%	57% (TOS = 3 h)	[1]
Ag/CaO-SiO <sub>2</sub>	P = 1 bar, T = 280 °C, 5 wt% glycerol aqueous solution 0.06 mL min <sup>-1</sup> , carrier gas (N <sub>2</sub> ), 0.1 g catalyst, fixed-bed reactor	~35%	~35%	[2]
Cu/HZSM-5 (Si/Al = 30)	P = 1 bar, T = 500 °C, Glycerol in a three neck round bottomed flask, carrier gas (N <sub>2</sub> ), fixed-bed reactor	100%	6.7% (TOS = 4 h)	[3]
$\gamma\text{-Al}_2\text{O}_3$	P = 1 bar, temperature of sonication = 40 °C, 10 wt% glycerol aqueous solution, 3% catalyst of glycerol (w/w), batch reactor equipped with an ultrasonic wave generator.	63.21 %	28.75% (TOS = 1.5 h)	[4]
Ni-V/ $\gamma\text{-Al}_2\text{O}_3$	P = 1 bar, T = 500 °C, glycerol aqueous solution 0.083 mL min <sup>-1</sup> , carrier gas (N <sub>2</sub> ) 25 mL min <sup>-1</sup> , 0.085 g catalyst, fixed-bed reactor	99%	19% (TOS = 1 h)	[5]
10%CaO/HZSM-5 (38)	P = 1 bar, T = 340 °C, glycerol aqueous solution 0.01 mL min <sup>-1</sup> , carrier gas (N <sub>2</sub> ) 20 mL min <sup>-1</sup> , 0.2 g catalyst, fixed-bed reactor	100%	69.7% (TOS = 2 h)	This work

## References

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