Supplementary Information (SI) for Catalysis Science & Technology. This journal is © The Royal Society of Chemistry 2025

Construction of Mordenite Catalysts with Superacid Sites for Enhanced Dimethyl Ether Carbonylation

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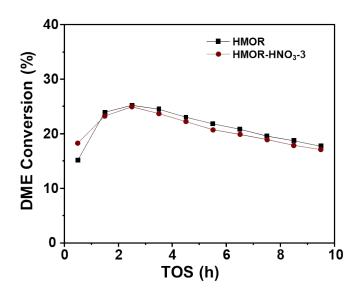


Figure S1. The DME conversion of HMOR and HMOR-HNO₃-3.

Reaction condition: T=200 °C, P=1.5 MPa, 6000 h⁻¹.

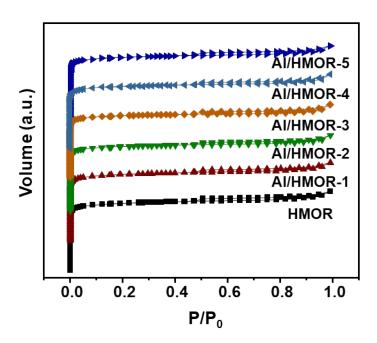


Figure S2. N₂ adsorption–desorption isotherms of the different samples

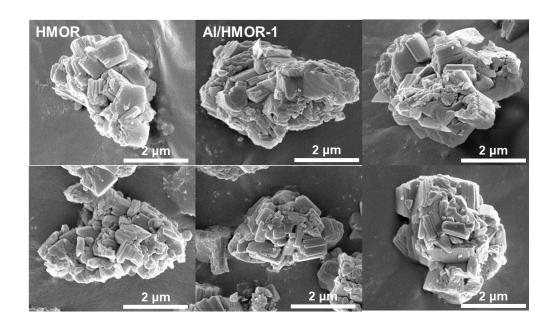


Figure S3. SEM images of the different samples

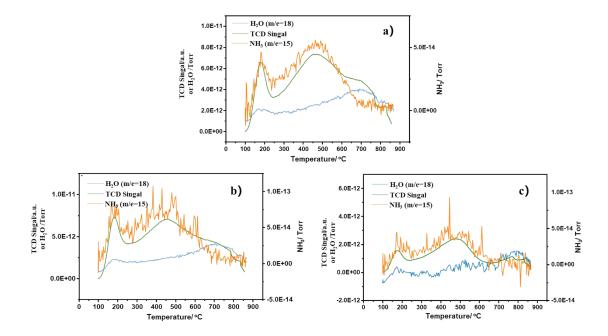


Figure S4. The signal of mass spectrometry of a) HMOR, b) Al/HMOR-3, c) Al/HMOR-5.