

Supporting information for

Mechanism of SAPO-34 catalyst deactivation in the course of MTO  
conversion in slurry reactor

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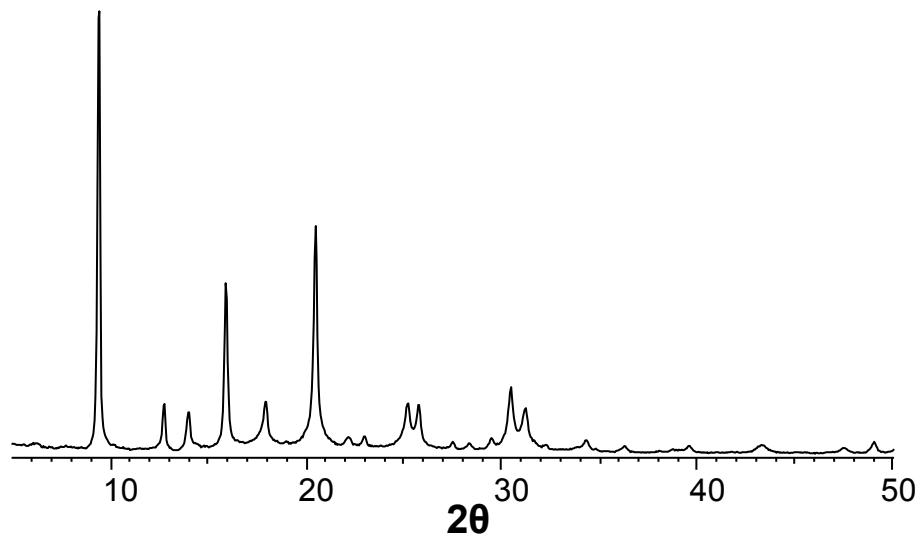


Fig. S1. XRD pattern of SAPO-34 catalyst.

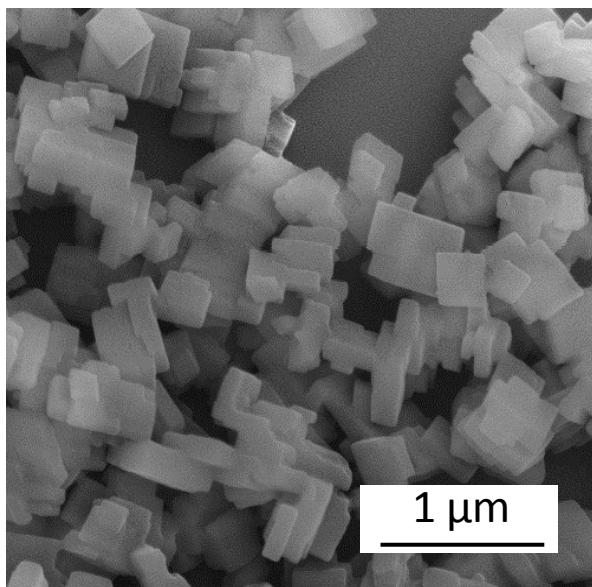


Fig. S2. SEM image of SAPO-34 catalyst.

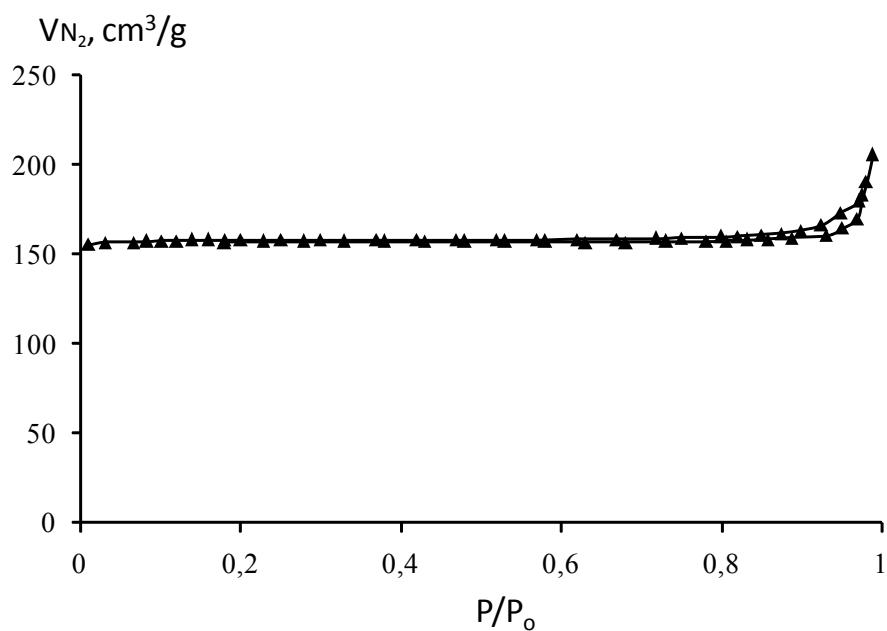


Fig. S3. Nitrogen adsorption/desorption isotherm of SAPO-34 catalyst.

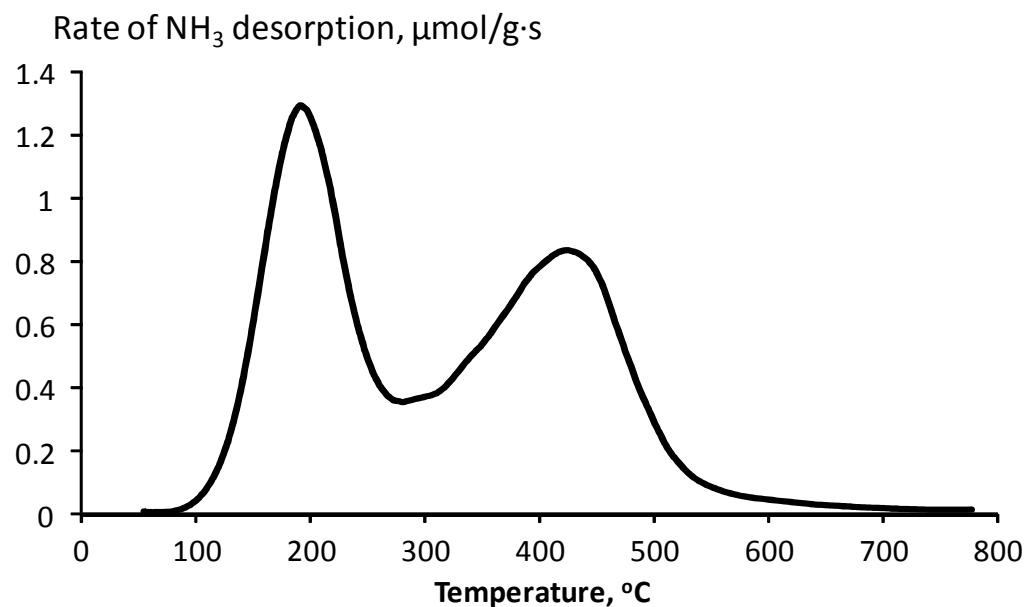


Fig. S4. TPD  $\text{NH}_3$  profile of SAPO-34 catalyst.

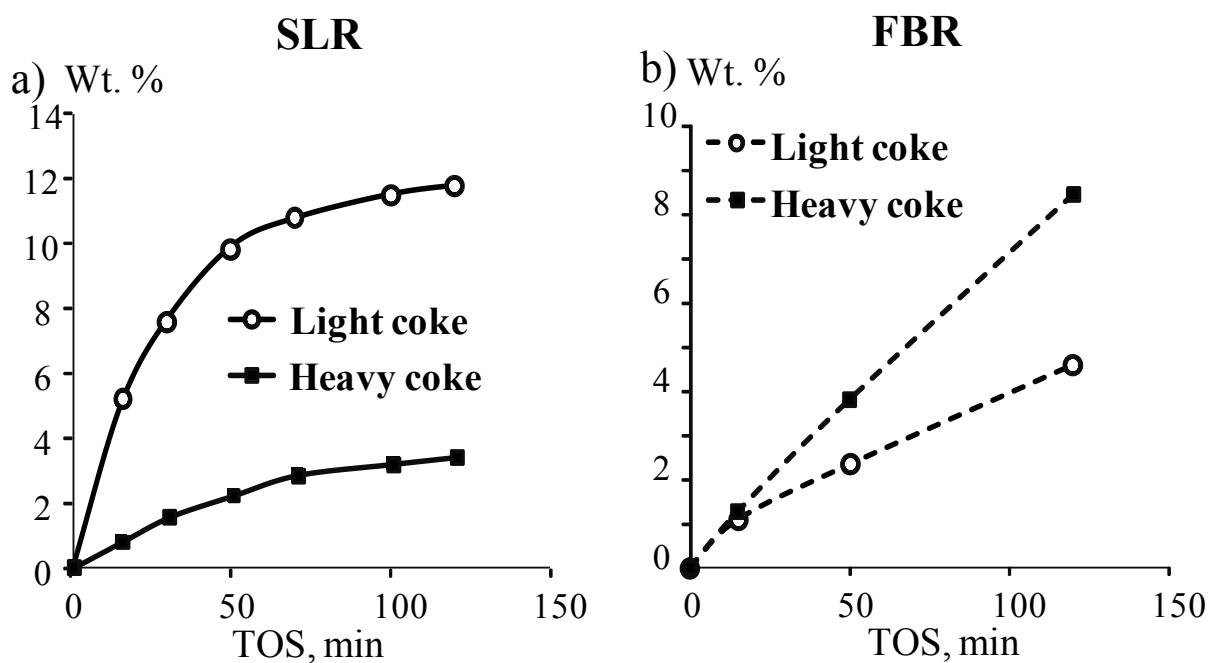


Fig. S5. Kinetics of “light” and “heavy” coke deposition under SLR (a) and FBR (b) conditions

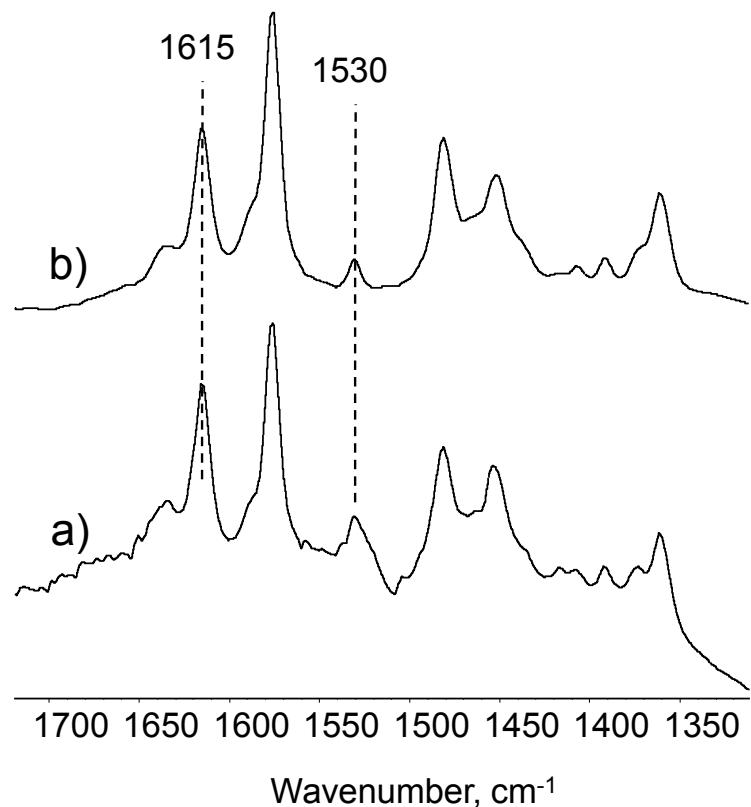


Fig. S6. FTIR spectra of DTBP adsorbed over fresh SAPO-34 sample (a), over SiO<sub>2</sub> modified sample (b). Bands at 1615 and 1530 cm<sup>-1</sup> correspond to protonated DTBP.