

Electronic Supplementary Information (ESI)

**Improving the catalytic performance of SAPO-18 for Methanol-to-Olefins (MTO) by
controlling the Si distribution and crystal size**

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Figure S1: Temperature-programmed desorption of ammonia of calcined SAPO-18 and SAPO-34 materials: SAPO-18_1 (a), SAPO-18_2 (b), SAPO-18_3 (c), SAPO-18_4 (d), and SAPO-34 (e)

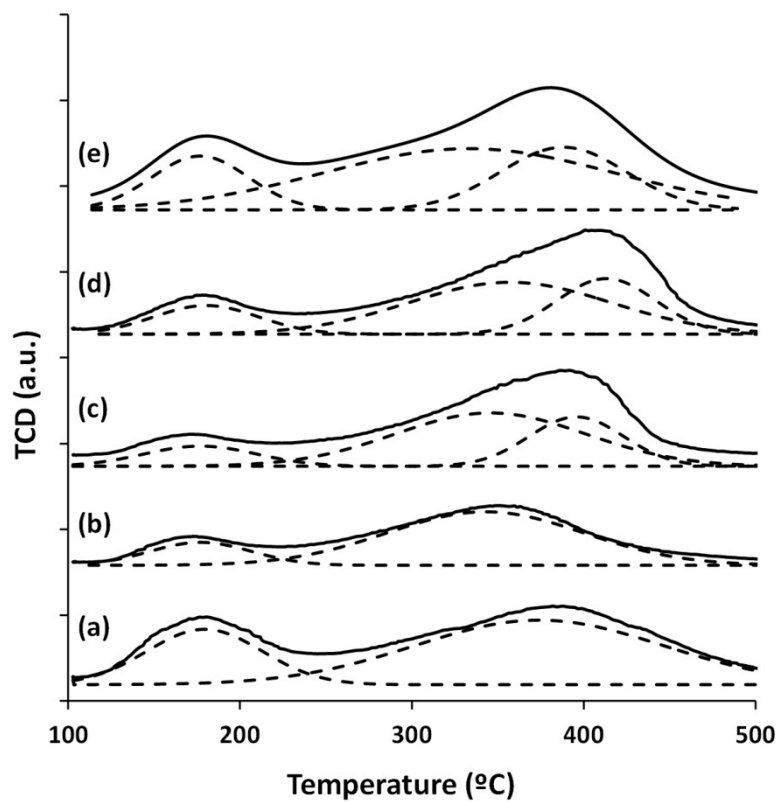


Figure S2: $C_2^= / C_3^=$ and $C_4^= / C_3^=$ molar ratios achieved using SAPO-18 and SAPO-34 materials as catalysts for the conversion of methanol at 400°C

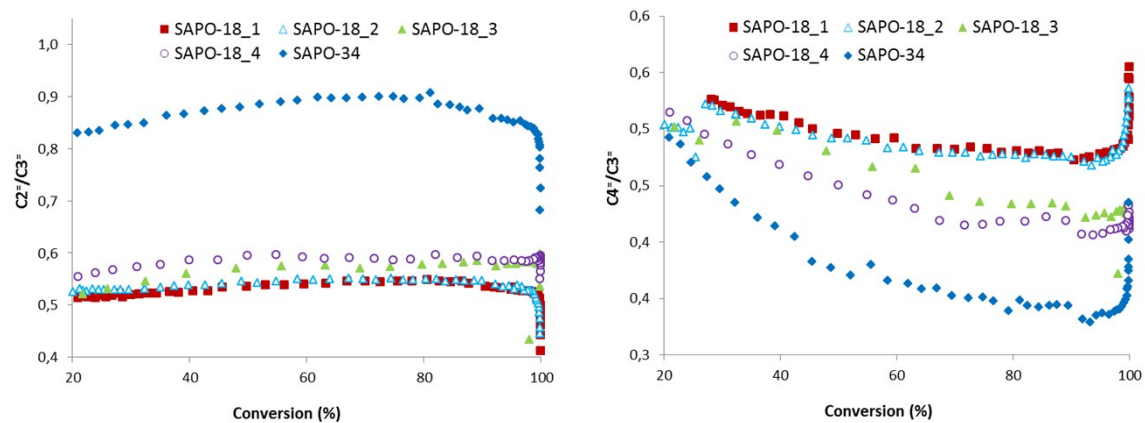


Figure S3: The hydrogen transfer index of the different catalysts against reaction time and methanol conversion at 400°C

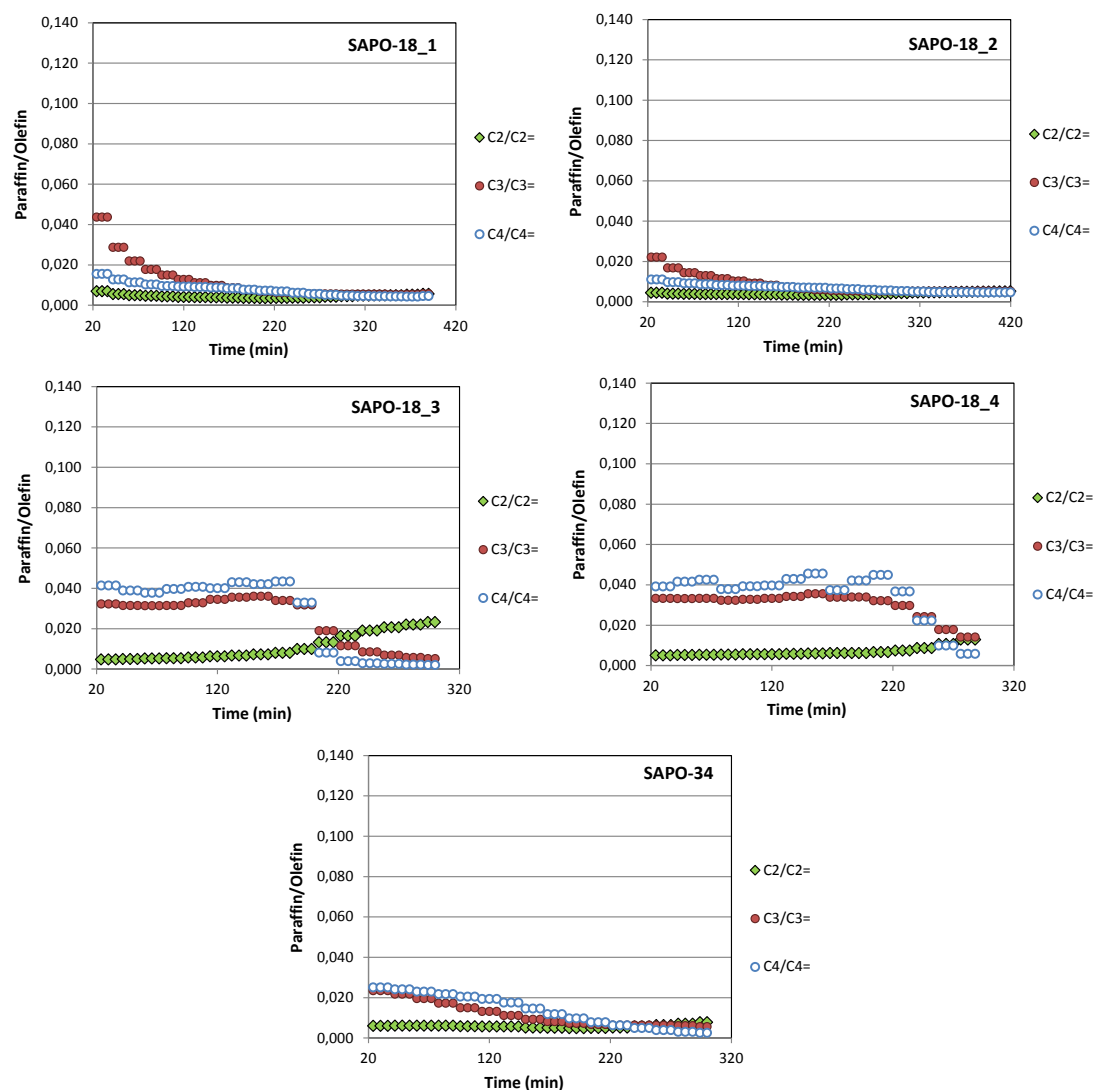


Figure S4: $C_2^= / C_3^=$ and $C_4^= / C_3^=$ molar ratios achieved using SAPO-18 and SAPO-34 materials as catalysts for the conversion of methanol at 350°C

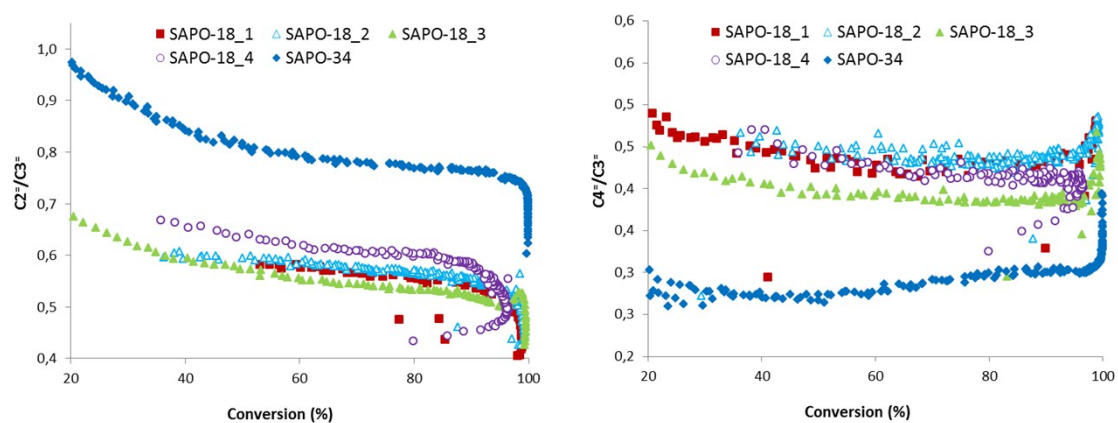


Figure S5: The hydrogen transfer index of the different catalysts against reaction time and methanol conversion at 350°C

