

Supporting information for Influence of hierarchization on electron transfers in structured MFI-type zeolites

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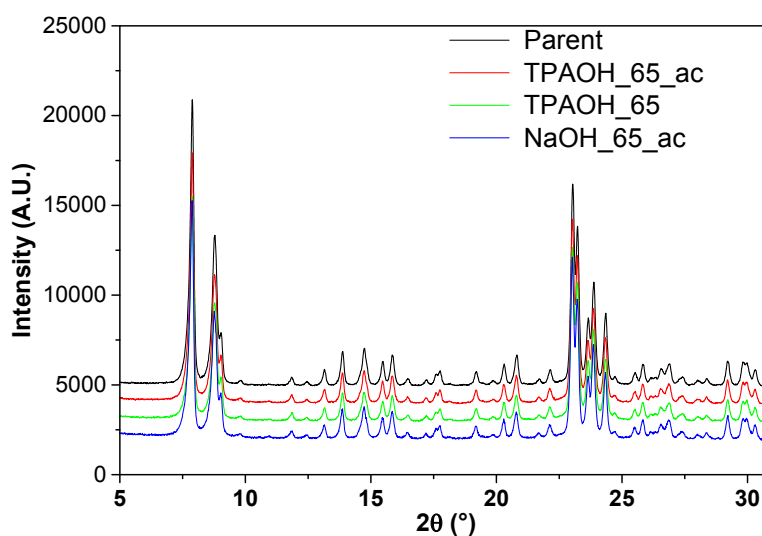


Figure S1: XRD patterns for parent samples and some of its hierarchical counterparts.

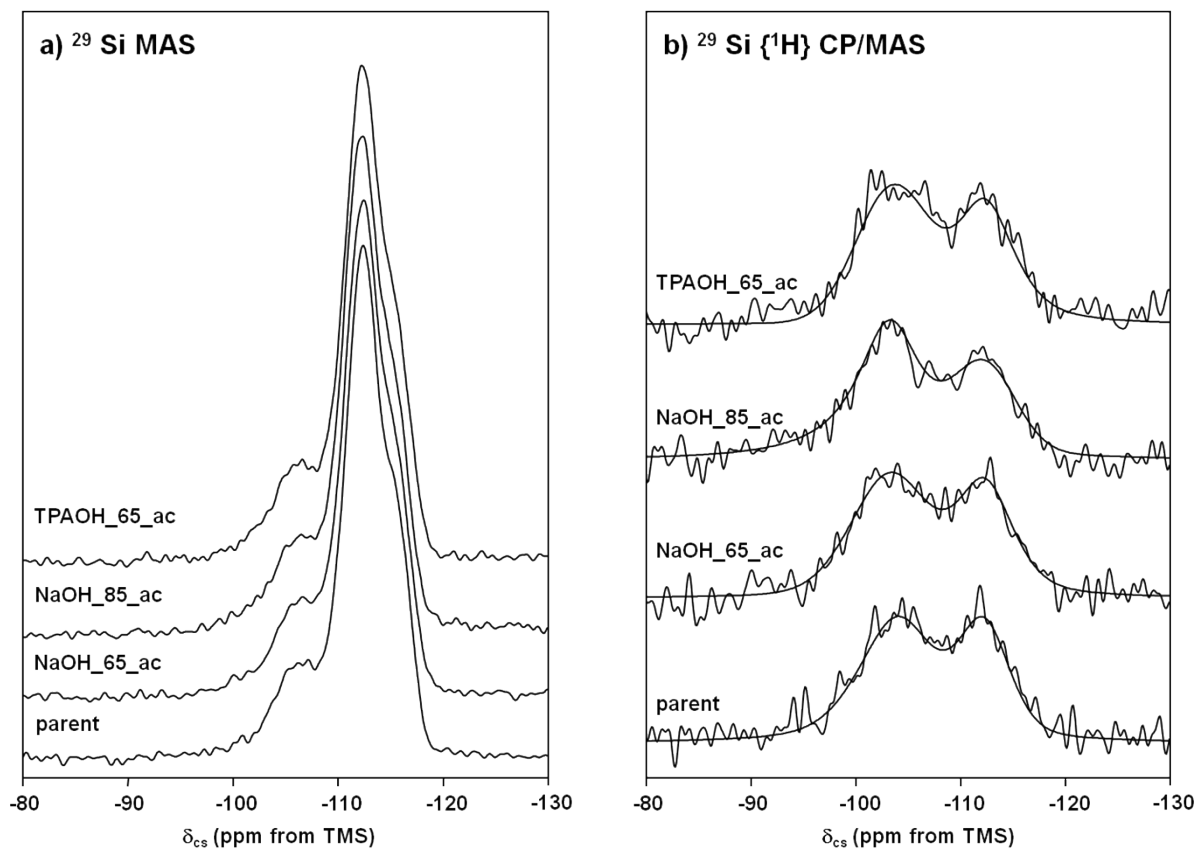


Figure S2: ^{29}Si MAS and CP/MAS (experimental and model) NMR spectra of parent and modified zeolites post-modified by both alkaline treatments and acid leaching.

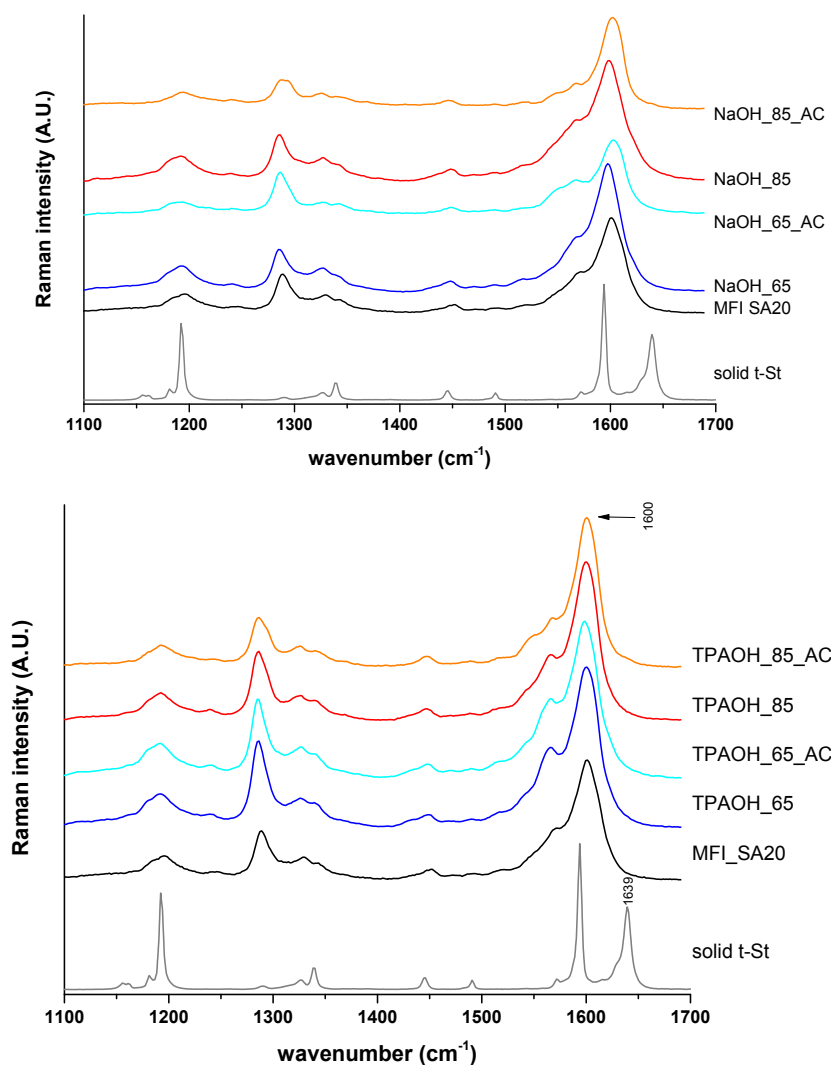


Figure S3: FT Raman spectra obtained 10 months after mixing t-stilbene with parent and zeolites modified by alkaline treatments with and without acid leaching. The spectrum of molecular t-stilbene in solid phase is given as reference.

The spectra were recorded using a near-IR ($\lambda_{ex}=1064$ nm) FT-Raman Bruker RFS 100/S spectrometer (laser power: 10-100 mW; resolution: 2 cm^{-1} ; 1200 scans).

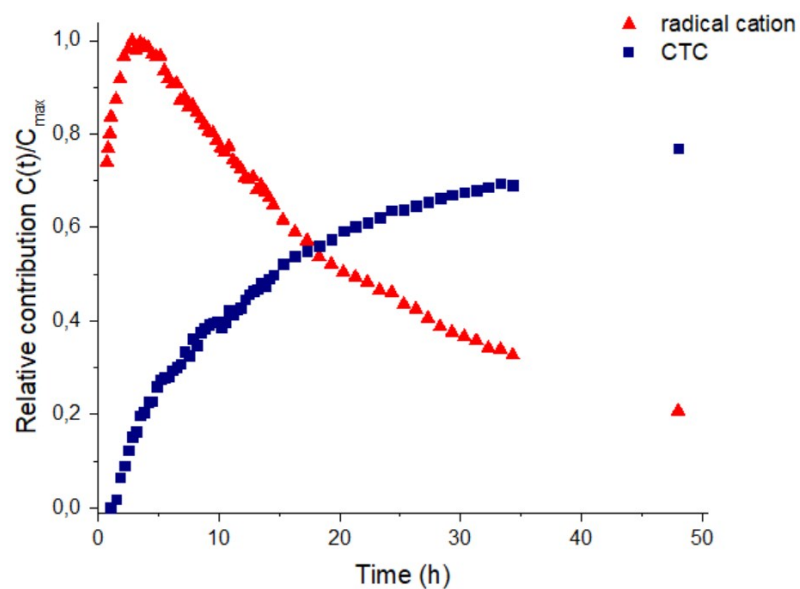


Figure S4: evolution of the relative spectral concentration for radical cation (red triangle) and for the Charge Transfer Complex (blue square) as a function of time after mixing t-stilbene and HZSM-5 with Si/Al =20.

Figure S4 highlights the initial formation of radical cation due to t-stilbene spontaneous ionization and the non-direct radical recombination leading to the Charge Transfer Complex (CTC) moiety. The evolution of the spectral concentrations clearly shows that the CTC formation occurs in parallel with the disappearance of radical cation.