

**Looking inside the pores of a MCM-41 based Mo
heterogeneous styrene oxidation catalyst: an inelastic
neutron scattering study
Supplementary Information**

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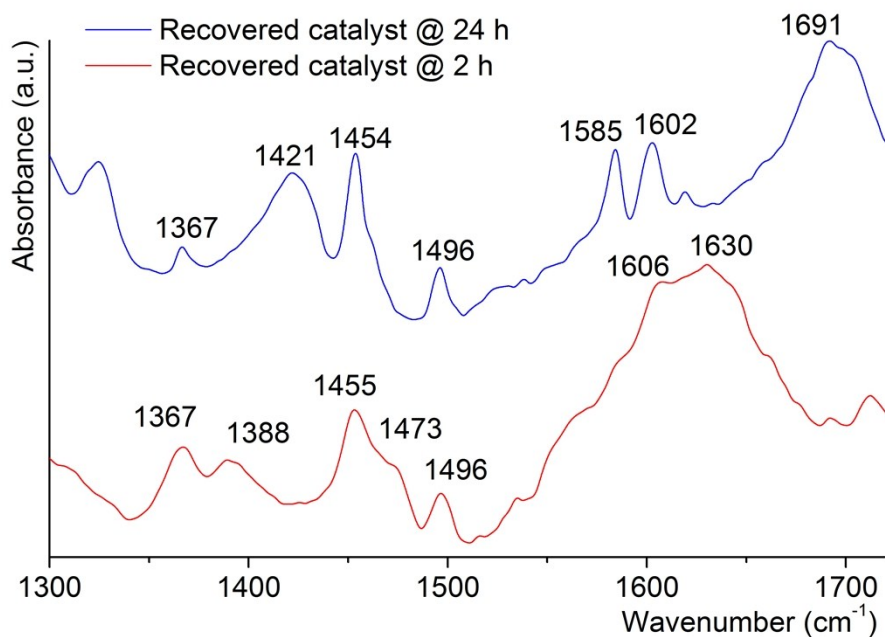


Fig S1. DRIFT spectra of recovered catalyst in the specific fingerprint region. The bottom red line shows the spectrum after 2 h where the major product is styrene oxide (ca. 60% selectivity). The top blue line shows the spectrum after 24 h where the major product is benzaldehyde (ca. 100% selectivity).

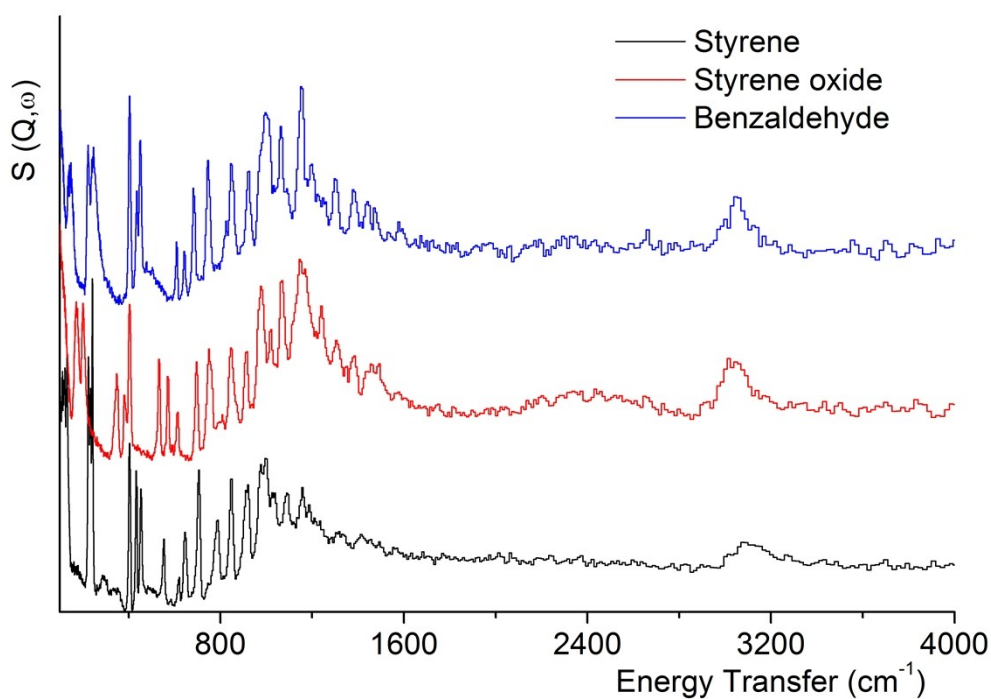


Fig S2. INS spectra of the neat reference compounds: styrene, styrene oxide and benzaldehyde in the 20–4000 cm^{-1} region.

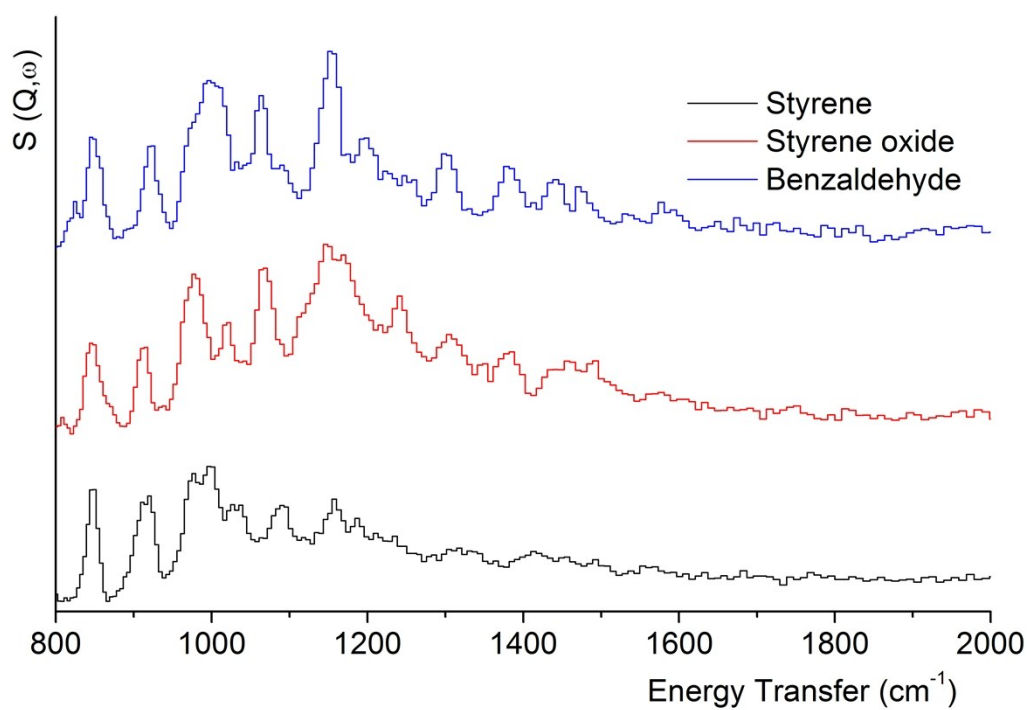


Fig S3. INS spectra of the neat reference compounds: styrene, styrene oxide and benzaldehyde in the fingerprint region (800–2000 cm^{-1}).