

Carbon/H-ZSM-5 composites as supports for bi-functional Fischer-Tropsch synthesis catalysts

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Figure S1. TGA patterns in air (5 K min⁻¹) of mesoH-ZSM-5(w) after carbon deposition at different reaction times.

Figure S2. XRD patterns of the catalysts after H₂ reduction and FTS.

Figure S3. TEM images of Co/mesoH-ZSM-5(w) (a,b) and Co/mesoH-ZSM-5(w22c) (c,d) after reduction in H₂ at 673 K for 4 h.

Figure S4. XPS survey spectrum for Co/mesoH-ZSM-5(w15c).

Figure S5. Molar distribution of FTS products after 20 h on-stream at 513 K, 15 bar, H₂/CO = 2 and $GHSV = 24.0 \text{ m}^3_{\text{STP}} \text{ kg}^{-1}_{\text{cat}} \text{ h}^{-1}$ for Co/mesoH-ZSM-5-(w), Co/mesoH-ZSM-5-(w05c), Co/mesoH-ZSM-5-(w10c) and Co/mesoH-ZSM-5-(w22c).

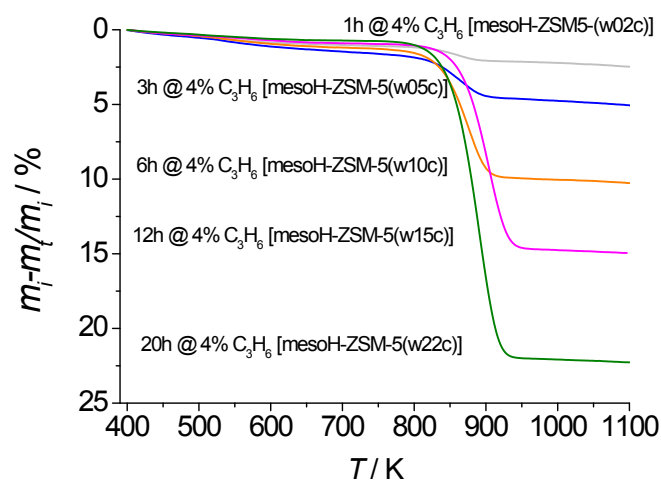


Figure S1. TGA patterns in air (5 K min^{-1}) of mesoH-ZSM-5(w) after carbon deposition at different reaction times.

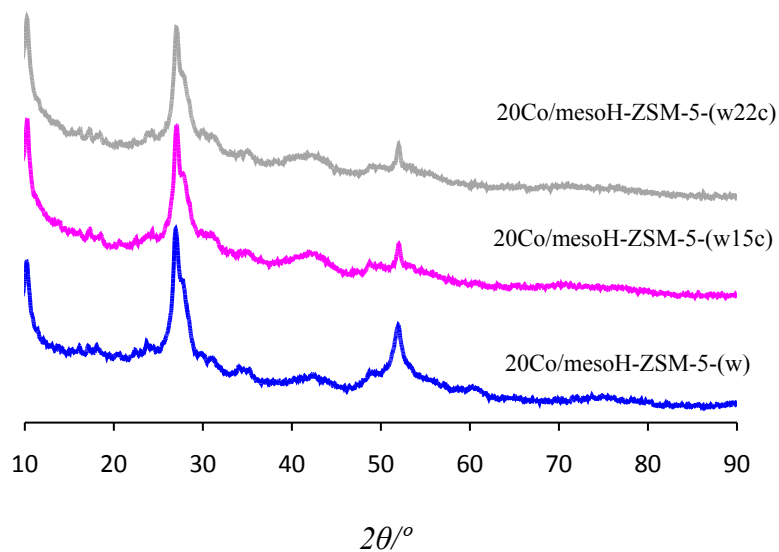


Figure S2. XRD patterns of the catalysts after H_2 reduction.

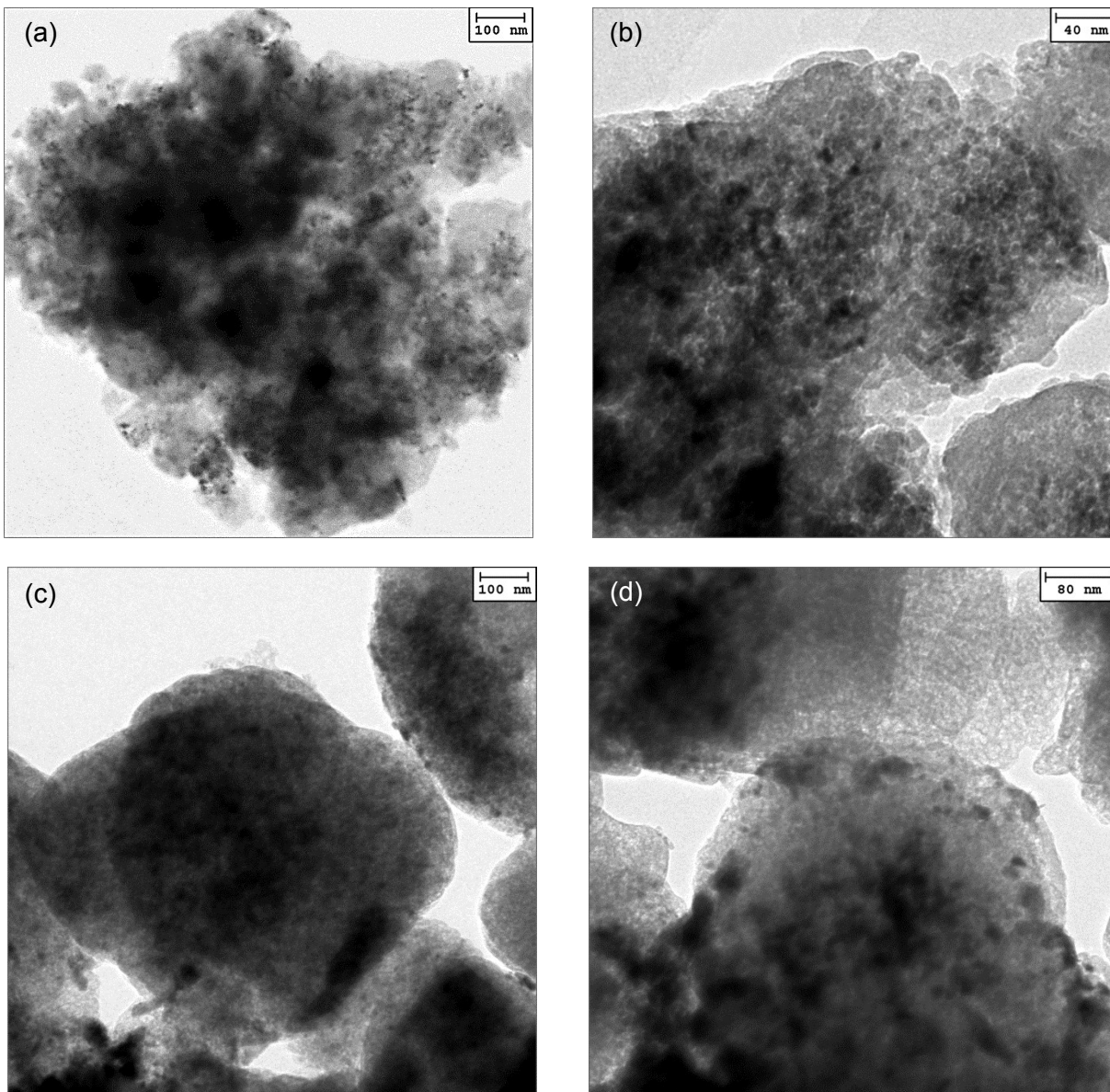


Figure S3. TEM images of Co/mesoH-ZSM-5(w) (a,b) and Co/mesoH-ZSM-5(w22c) (c,d) after reduction in H₂ at 673 K for 4 h.

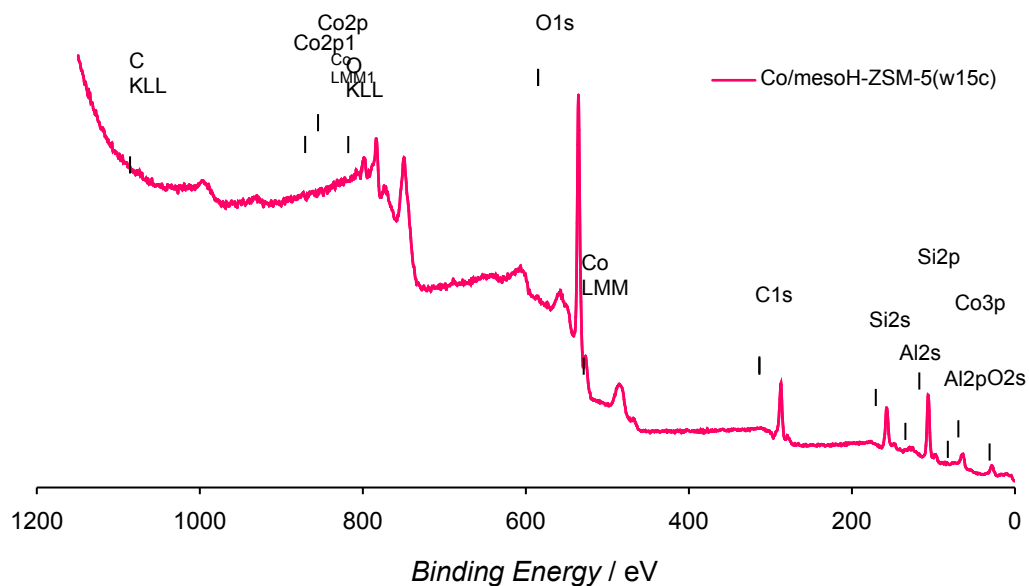


Figure S4. XPS survey spectrum for Co/mesoH-ZSM-5(w15c).

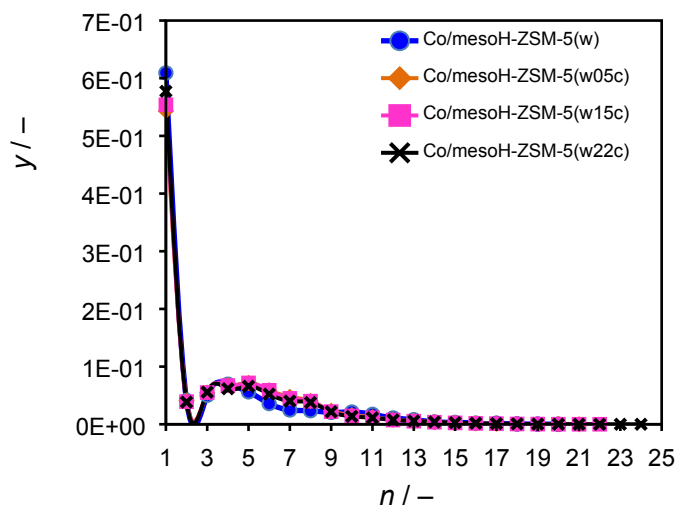


Figure S5. Molar distribution of FTS products after 20 h on-stream at 513 K, 15 bar, $H_2/CO = 2$ and $GHSV = 24.0 \text{ m}^3_{\text{STP}} \text{ kg}^{-1}_{\text{cat}} \text{ h}^{-1}$ for Co/mesoH-ZSM-5-(w), Co/mesoH-ZSM-5-(w05c), Co/mesoH-ZSM-5-(w10c) and Co/mesoH-ZSM-5-(w22c).