Supporting Information

for

pH- and competitor-driven nanovalves of cucurbit[7]uril pseudorotaxanes based on mesoporous silica supports for controlled release†

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**Fig. S1** Fluorescence spectra of aqueous calcein solutions at different pH.
**Fig. S2** Fluorescence spectra of aqueous calcein solutions in the absence and presence of competitors (1.0 × 10⁻⁴ mol L⁻¹) at pH 6.5: (a) CTAB; (b) 1,6-hexanediamine.
**Fig. S3** Comparison of calcein leakages from the MCM-41 systems before triggered activation in aqueous solutions without and with CB[7] (1.0 × 10^{-9} mol L^{-1}) at pH 6.5.