Supplementary information for manuscript:

Pseudo-polymorphism in the toluene solvate of p-tert-butylcalix[5] arene: Structural and gas sorption investigations

As it was pointed out that the OH positions in reference [4] of the manuscript are incorrect, this has been resolved and is submitted as supporting information for the current manuscript.

**Crystal data for TBC5·Tol I (original CSD entry DEVSAZ):**  $C_{138}H_{172}O_{10}$ , M = 1990.76, triclinic, a = 17.127(3), b = 18.127(3), c = 22.045(3) Å,  $\alpha = 87.057(3)$ ,  $\beta = 67.666(3)$ ,  $\gamma = 70.904(3)^{\circ}$ , U = 5961.6(16) Å<sup>3</sup>,  $\mu = 1.109$  mm<sup>-1</sup>, T = 173(2) K, space group P1, Z = 2, Mo-K $\alpha$  radiation (wavelength  $\lambda = 0.71073$  Å), final goodness of fit = 1.048, agreement index  $R_1 = 0.0788$ , 42944 reflections measured, 25654 unique ( $R_{int} = 0.0236$ ) which were used in all calculations. The final weighted agreement index  $\omega R(F^2)$  was 0.2498 (all data).

Crystal data for Sublimed TBC5 (original CSD entry DEVSED):  $C_{27.50}H_{35}O_{2.5}$ , M = 405.55, orthorhombic, a = 12.780(3), b = 15.035(6), c = 15.340(4) Å, U = 4908(2) Å<sup>3</sup>,  $\mu = 1.098$  mm<sup>-1</sup>, T = 173(2) K, space group *Pnma*, Z = 8, Mo-Kα radiation (wavelength  $\lambda = 0.71073$  Å), final goodness of fit = 1.058,  $R_1 = 0.0911$ , 12069 reflections measured, 3610 unique ( $R_{\text{int}} = 0.1290$ ) which were used in all calculations. The final  $\omega R(F^2)$  was 0.1992 (all data).