

Synthesis and complexation properties of *N,N'*-bis(calix[4]arenoxyacetyl)-hydrazine derivative

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Synthesis of compound 1. Suspension of ester **2** (1 mmol, 0.72 g) and $\text{N}_2\text{H}_4 \cdot \text{H}_2\text{O}$ (10 mmol, 0.5 ml) in methanol (50 ml) was stirred at 50 °C for 10 h. The mixture was cooled and 50 ml of water was added. The precipitate was filtered off, dissolved in CHCl_3 and washed with water (2×50 ml). Evaporation of the solvent afforded a solid crude product which was purified by column chromatography [silica gel 60 (0.063–0.100 mm, Merck), hexane– CHCl_3 , 5:1]. Yield 80%. $^1\text{H NMR}$, δ : 1.17 (s, 9 H, Bu^t), 1.22 (s, 18 H, Bu^t), 1.23 (s, 9 H, Bu^t), 3.49 (d, 4 H, ArCH_2Ar , J 13.69 Hz), 4.15 (d, 2 H, ArCH_2Ar , J 13.07 Hz), 4.27 (d, 2 H, ArCH_2Ar , J 14.01 Hz), 4.67 (s, 2 H, OCH_2), 4.82 (s, 2 H, NH_2), 6.94 (d, 2 H, ArH), 7.02 (s, 2 H, ArH), 7.05 (d, 2 H, ArH), 7.08 (s, 2 H, ArH), 9.47 (br. s, 2 H, OH), 10.41 (s, 1H, OH), 11.5 (s, 1H, NH). Found (%): C, 75.95; H, 8.52; N, 3.77. Calc. for $\text{C}_{46}\text{H}_{60}\text{N}_2\text{O}_5$ (%): C, 76.63; H, 8.39; N, 3.89. FAB-MS (negative ions), m/z : 720 (M), 648.