

9-[(2-Methoxyethoxy)methoxy]anthracene **7**

Anthrone **13** (10.0 g, 51.5 mmol) was added in one portion to a magnetically stirred suspension of NaH (2.28 g, 95.0 mmol) in dry THF (250 mL) maintained at 0°C (ice bath) under a nitrogen atmosphere. Stirring was continued for 1 h at 0°C, after which time MEMCl (8.8 mL, 77.1 mmol) was added dropwise. Stirring was continued at about 18°C for a further 5 h and the resulting yellow suspension was re-chilled (ice bath) and then treated with water (250 mL) (CAUTION!). The reaction mixture was concentrated under reduced pressure to remove the THF and the residue partitioned between CH₂Cl₂ (250 mL) and water (250 mL). The phases were separated and the aqueous layer was extracted with CH₂Cl₂ (3 × 200 mL). The combined organic phases were dried (MgSO₄), filtered, and concentrated under reduced pressure to give a light-orange oil. This material was subjected to flash chromatography (silica; 1:4 EtOAc/hexane elution) to afford, after concentration of the appropriate fractions (*R*_F 0.5), a dark yellow oil that crystallized upon standing.

Recrystallization (hexane) of this material afforded the *title compound 7* (13.6 g, 93%) as white needles, mp 62–63°C (lit.^[19] 62°C). $[\alpha]_{\text{D}}^{20}$ 1.57 (*c* 0.3 in MeOH). ν_{max} (KBr)/cm⁻¹ 2920, 2873, 1344, 1277, 1176, 1110, 1052, 1028, 935. λ_{max} /nm (ϵ /M⁻¹ cm⁻¹) 320 (5000). δ_{H} 4.07 (q, *J* 7.5, 2H, CH₂CH₃), 3.63 (m, 2H), 3.39 (t, *J* 7.5, 3H, CH₂CH₃), 7.51 (complex m, 4H, ArH), 5.47 (s, 2H, ArCH₂). δ_{C} 132.3, 128.3, 125.5, 125.3, 124.9, 122.7, 122.6, 100.1, 71.8, 69.8, 59.1 (one signal obscured by overlapping). *m/z* (ESI) 284 (44%, M⁺), 209 (19, [M – C₃H₇O₂]⁺), 196 (61), 167 (48), 91 (90), 61 (100). Anal. Calc. for C₁₈H₁₈O₃: C 76.56, H 6.43. Found: C 76.85, H 6.41%.