Swern Oxidation Proceedure

Preparation of (+)-B. A solution of oxalyl chloride (130 μL, 1.49 mmol) in dichloromethane (5 mL) was cooled to -78 °C. Following the dropwise addition of a solution of dimethylsulfoxide (211 μL, 2.98 mmol) in 1 mL dichloromethane, the reaction mixture was stirred for 5 min. A solution of alcohol **A** (448 mg, 1.24 mmol) in 1.5 mL dichloromethane was then added to the reaction mixture. After 5 min of stirring, diisopropylethylamine (1.1 mL, 6.20 mmol) was added, and the reaction mixture was warmed to ambient temperature. The reaction mixture was then diluted with diethyl ether and water and the layers were separated. The organic layer was washed with water, brine, dried over MgSO₄, filtered, and concentrated in vacuo. Flash chromatography with 10:1 hexanes:ethyl acetate as eluant gave **B** (413 mg, 92%) as a white solid: mp 61.0-62.5 °C; $[\alpha]_D^{23}$ +60.9° (c 0.42, CHCl₃); IR (CHCl₃) 2960 (s), 2940 (s), 2860 (s), 1735 (s), 1450 (m), 1380 (m), 1250 (m), 1110 (s), 910 (m), 835 (s) cm⁻¹; ¹H NMR (500 MHz, CDCl₃) δ 9.36 (d, J = 1.6 Hz, 1 H), 5.65 (d, J = 9.9 Hz, 1 H), 4.31 (t, J = 1.4 Hz, 1 H), 4.03 (d, J = 6.5 Hz, 1 H), 2.86-2.81 (m, 5 H), 2.10-2.07 (m, 1 H), 1.83-1.80 (m, 1H), 1.61 (d, J = 1.4 Hz, 3 H), 1.15 (d, J = 6.8 Hz, 3 H), 0.92 (s, 9 H), 0.08 (s, 3 H), 0.08 (s, 3 H); ¹³C NMR (62.5 MHz, CDCl₃) δ 200.0, 131.5, 131.3, 82.9, 54.4, 37.4, 30.7, 30.6, 26.1, 25.7, 18.2, 12.8, -4.8, -5.1; TLC R_f = 0.50, **SM** R_f = 0.39 (4:1 hexanes:ethyl acetate); high-resolution mass spectrum (Cl, NH₃) m/z 361.1685 [(M+H)+; calcd for C₁₇H₃₃O₂S₂S₂Si: 361.1691].

Anal. Calcd for $C_{17}H_{32}O_2S_2S_i$: C, 56.62; H, 8.94. Found: C, 56.48; H, 9.39.

See: a) Mancuso, A.J.; Huang, S.-L.; Swern, D. J. Org. Chem. 1978, 43, 2480.

b) Mancuso, A.J.; Swern, D. Synthesis 1981, 165.