

— 7.26 CDCl3

Integrated area of sample (I_x) = 3.02

Integrated area of standard (I_{cal}) = 3.00

Number of sample nuclei (N_x) = 3

Number of standard nuclei (N_{cal}) = 3

Molecular weight of sample (M_x) = 258.4770

Molecular weight of standard (M_{cal}) = 137.1380

Mass of internal standard (W_{cal}) = 18.2 mg

Mass of sample (W_x) = 34.7 mg

Purity of standard (P_{cal}) = 99.5 %

$$P_x = \frac{I_x}{I_{cal}} \times \frac{N_{cal}}{N_x} \times \frac{M_x}{M_{cal}} \times \frac{W_{cal}}{W_x} \times P_{cal}$$

$$P_x = \frac{3.02}{3.00} \times \frac{3}{3} \times \frac{258.4770}{137.1380} \times \frac{18.2}{34.7} \times 99.5 = 99.0\%$$

