Integrated area of sample (Ix) = 0.97
Integrated area of standard ($Ical$) = 3.00
Number of sample nuclei (Nx) = 1
Number of standard nuclei ($Ncal$) = 3
Molecular weight of sample (Mx) = 274.4760
Molecular weight of standard ($Mcal$) = 137.1380
Mass of internal standard ($Wcal$) = 14.2 mg
Mass of sample (Wx) = 28.2 mg
Purity of standard ($Pcal$) = 99.5 %

$$Px = \frac{Ix}{Ical} \times \frac{Ncal}{Nx} \times \frac{Mx}{Mcal} \times \frac{Wcal}{Wx} \times Pcal$$
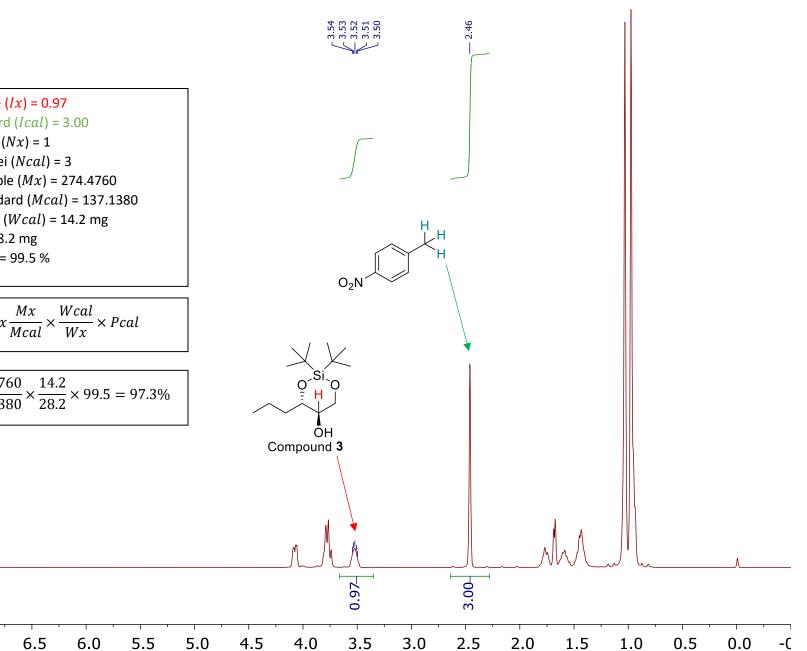
$$Px = \frac{0.97}{3.00} \times \frac{3}{1} \times \frac{274.4760}{137.1380} \times \frac{14.2}{28.2} \times 99.5 = 97.3\%$$

Compound **3**

1H NMR (ppm)