

Int= average of normalized integrals values

MW =molecular weight

P =Purity (as percent value)

m = mass

n= number of protons giving rise to a given NMR signal (The total number of protons is set to one because an average of all normalized integrals is carried out)

$n_{\text{DMF}} = 1$

$n_3 = 1$

$\text{Int}_{\text{DMF}} = 0.5488$

$\text{Int}_3 = 1.0222$

$\text{MW}_{\text{DMF}} = 144.13$

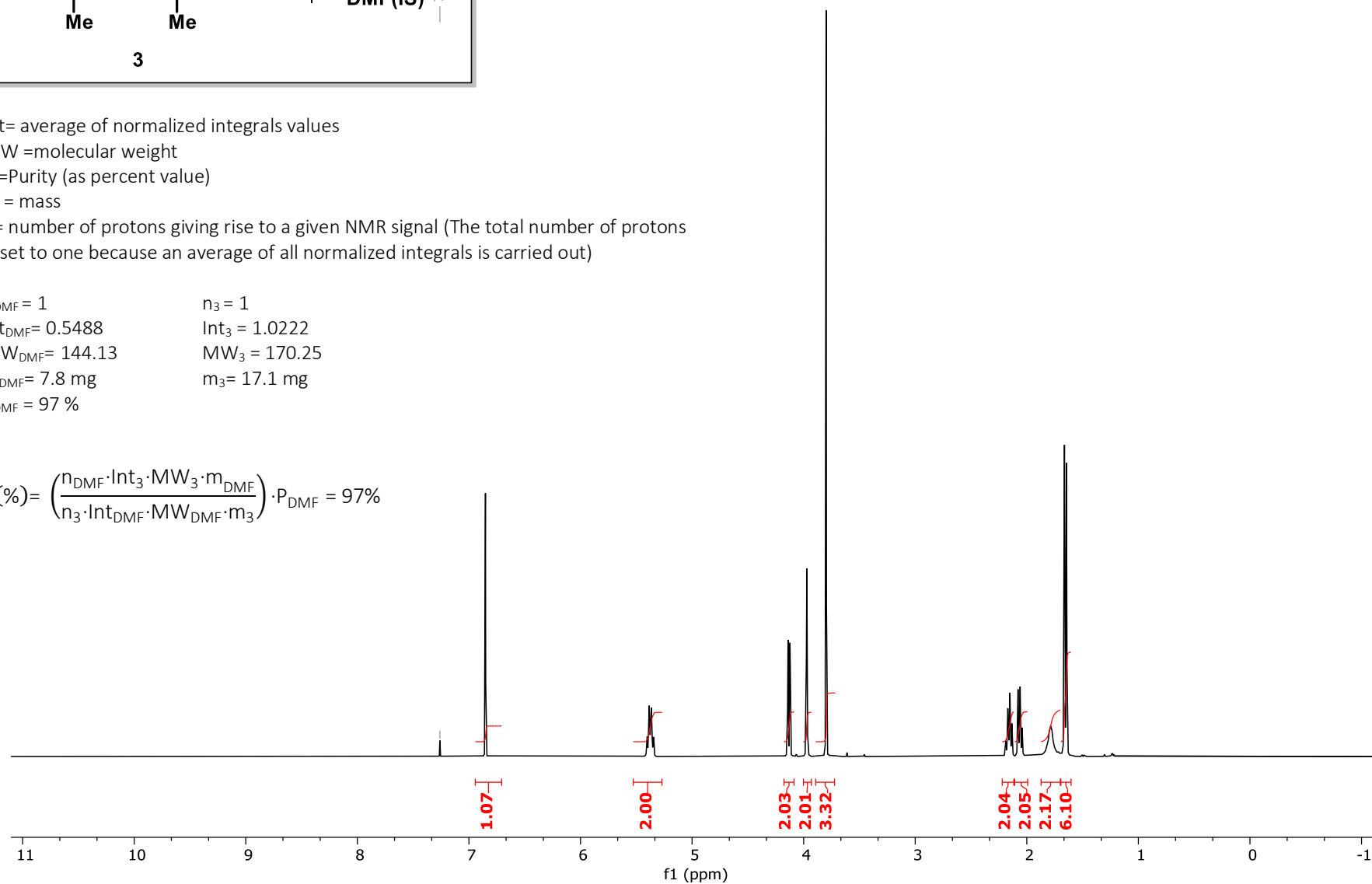
$\text{MW}_3 = 170.25$

$m_{\text{DMF}} = 7.8 \text{ mg}$

$m_3 = 17.1 \text{ mg}$

$P_{\text{DMF}} = 97 \%$

$$P(\%) = \left(\frac{n_{\text{DMF}} \cdot \text{Int}_3 \cdot \text{MW}_3 \cdot m_{\text{DMF}}}{n_3 \cdot \text{Int}_{\text{DMF}} \cdot \text{MW}_{\text{DMF}} \cdot m_3} \right) \cdot P_{\text{DMF}} = 97\%$$



¹H NMR (400 MHz, CDCl₃) of 8-hydroxygeraniol (3) and dimethyl fumarate (DMF) as internal standard.