



¹H NMR (400 MHz, CDCl₃) of compound 4 + EC as internal standard

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)

$n_{EC} = 1$

$n_4 = 1$

$Int_{EC} = 1.00$

$Int_4 = 0.965$

$MW_{EC} = 88.06$

$MW_4 = 253.39$

$M_{EC} = 4.77 \text{ mg}$

$m_4 = 13.13 \text{ mg}$

$P_{EC} > 99 \%$

$$P(\%) = \left(\frac{n_{EC} \cdot Int_4 \cdot MW_4 \cdot m_{EC}}{n_4 \cdot Int_{EC} \cdot MW_{EC} \cdot m_4} \right) \cdot P_{EC} = 99.8\%$$