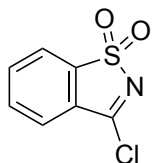
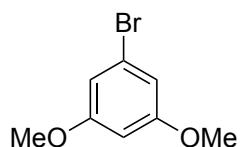


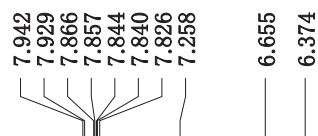
¹H-QNMR (600 Mz, CDCl₃)



Purified Compound **2**

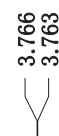


internal standard



1.06 3.24

2.00 0.98



6:00



$$\% \text{ QNMR purity} = \frac{mg_{std} \times MW_{cpd} \times \text{molar ratio} \times P_{std}}{mg_{cpd} \times MW_{std}} \times 100$$

$$\text{molar ratio} = \frac{\left[\frac{I_{cpd}}{nH_{cpd}} \right]}{\left[\frac{I_{std}}{nH_{std}} \right]} = \frac{\frac{3.24}{3}}{\frac{6}{6}} = 1.08$$

I_{cpd} : integral value of **2** = 3.24

nH_{cpd} : number of H of **2** = 3

I_{std} : integral value of internal standard = 6

nH_{std} : number of H of internal standard = 6

mg_{std} : weight of internal standard = 10.0 mg

mg_{cpd} : weight of **2** = 10.0 mg

MW_{std} : MW of internal standard = 217.06 mg/mmol

MW_{cpd} : MW of **2** = 201.62 mg/mmol

P_{std} : purity of internal standard = 0.97

$$\begin{aligned} \% \text{ QNMR purity} &= \frac{10.0 \text{ mg} \times 201.62 \text{ mg/mmol} \times 1.08 \times 0.97}{10.0 \text{ mg} \times 217.06 \text{ mg/mmol}} \times 100 \\ &= 97.3\% \end{aligned}$$

