

¹H qNMR data of compound 1
(500 MHz, CDCl₃)

8.56

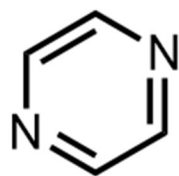
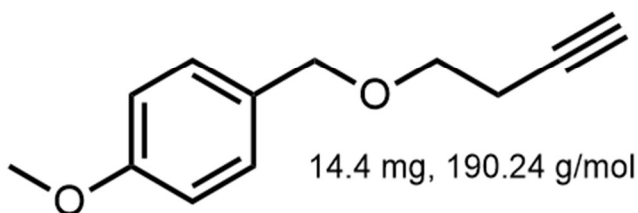
7.25
7.23

6.86
6.84

4.46

3.77
3.56
3.55
3.53

2.48
2.47
2.46
2.45
2.44
1.98



pyrazine 19.6 mg
80.09 g/mol

Molar ratio:

$$[0.61/2]/[4/4] = 0.31$$

$$[0.63/2]/[4/4] = 0.32$$

$$[0.62/2]/[4/4] = 0.31$$

$$[0.93/3]/[4/4] = 0.31$$

$$[0.59/2]/[4/4] = 0.30$$

$$[0.58/2]/[4/4] = 0.29$$

$$[0.28/1]/[4/4] = 0.28$$

Average molar ratio: 0.30

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

$$= \frac{19.6\ mg \times 190.24\ \frac{g}{mol} \times 0.30 \times 1}{14.4\ mg \times 80.09\ \frac{g}{mol}} \times 100$$

$$= 96.9$$

Calculated 96.9% purity of product.

