

1D 1H
CDCl3
500.13 MHz

7.61
7.60
7.42
7.40
7.26 CDCl3

5.35
5.35
5.30
5.30

1.95

1.43

qNMR for the product of the 2nd trial (full scale);
tert-butyl acetate was used as standard

Internal standard = 22.05 mg

Sample = 15.38 mg

Molar ratio = $[0.49/1]/[3/3] = 0.49$

%P of standard = 0.99

MW of product = 165.14

MW of standard = 116.16

$mt = (3 \times 0.49 \times 165.14 \text{ g/mol} \times 22.1 \text{ mg} \times 0.99) / (3.0 \times 1 \times 116.16 \text{ g/mol})$
 $= 5299.24 / 348.48 = 15.2$

$P = mt / ms = 15.2 / 15.4 \times 100 = 98\%$ purity

