

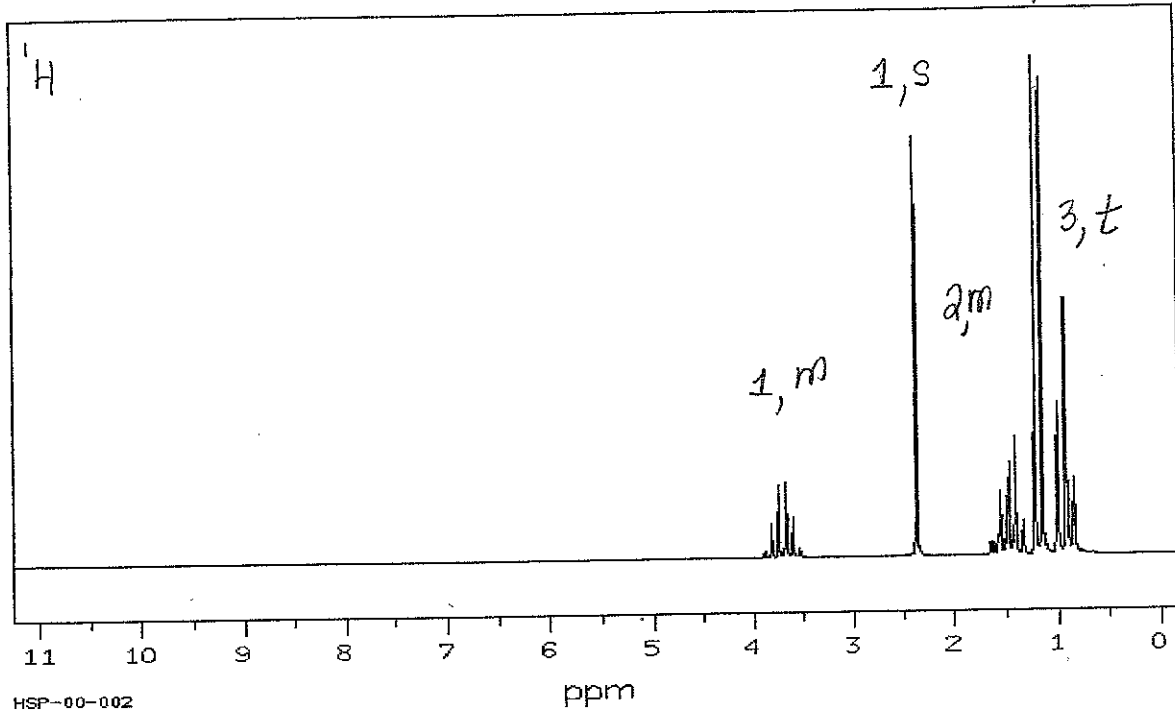
Chapter 13. Proton NMR Advanced Practice

compounds

#1. formula =  $C_4H_{10}O$

OH group (no coupling)

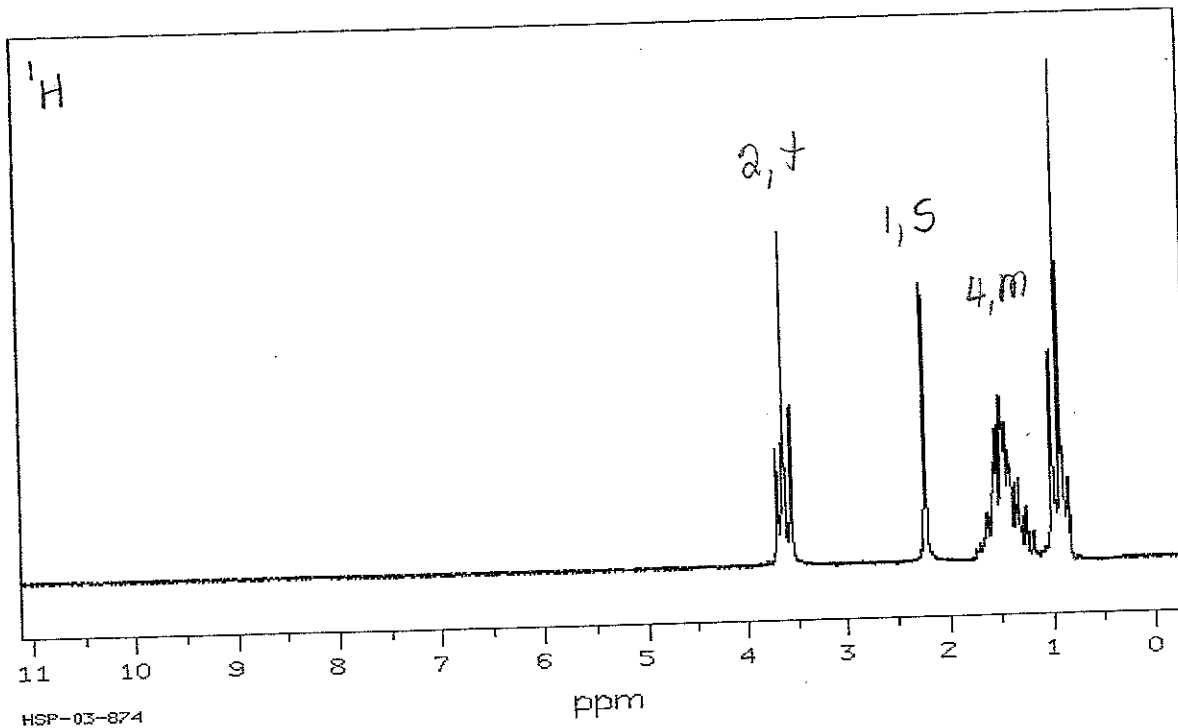
↓ 3,d



#2.

formula =  $C_4H_{10}O$

3,t



3. Formula =  $C_4H_{10}O_2$

$^1H$  NMR:

3.25 $\delta$  (s, 6H), 3.45 $\delta$  (s, 4H)

1.05 $\delta$  (t, 3H)

4. Formula =  $C_5H_{10}O$

$^1H$  NMR:

1.10 $\delta$  (d, 6H), 2.10 $\delta$  (s, 3H),

2.5 $\delta$  (septet, 1H)

5. Formula =  $C_6H_{12}$

$^1H$  NMR:

0.9 $\delta$  (t, 3H), 1.6 $\delta$  (s, 3H), 1.7 $\delta$  (s, 3H), 2.0 $\delta$  (m, 2H), 5.1 $\delta$  (t, 1H)

6. Formula =  $C_{10}H_{14}O$

$^1H$  NMR:

1.2 $\delta$  (s, 6H), 1.6 $\delta$  (s, 1H), 2.7 $\delta$  (s, 2H), 7.2 $\delta$  (s, 5H)