

**M.Sc. Semester-III**  
**Core Course - 7 (CC-7)**  
**Application of Spectroscopy**



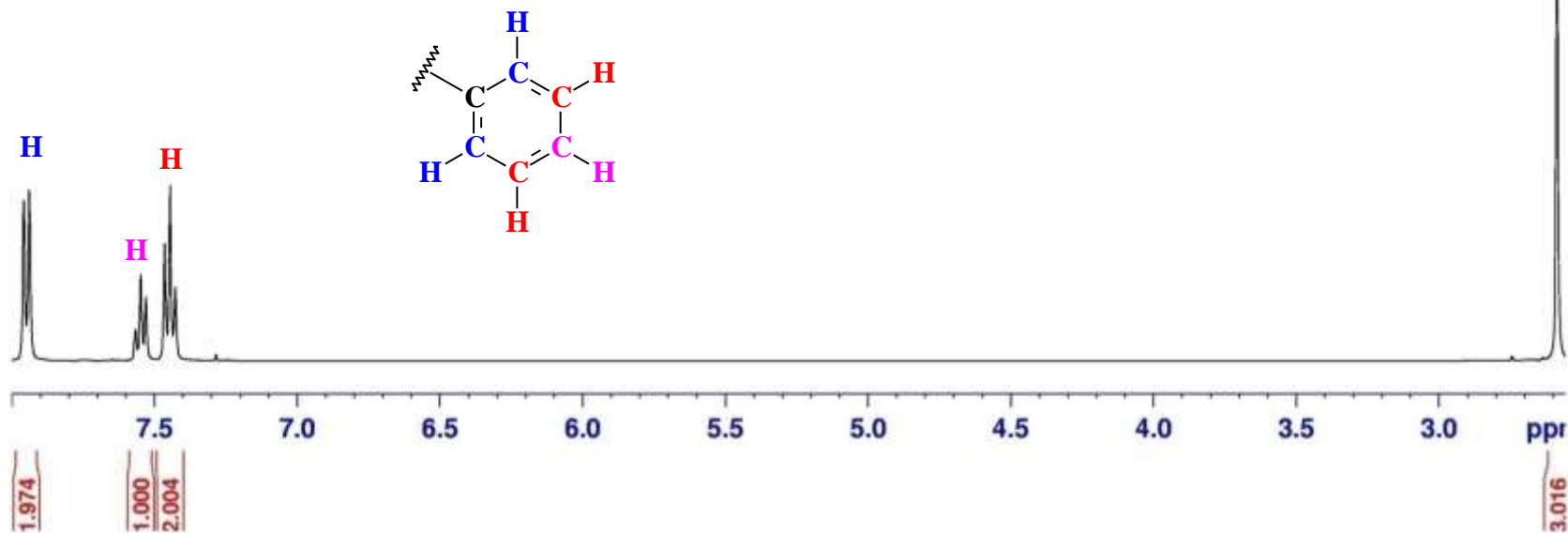
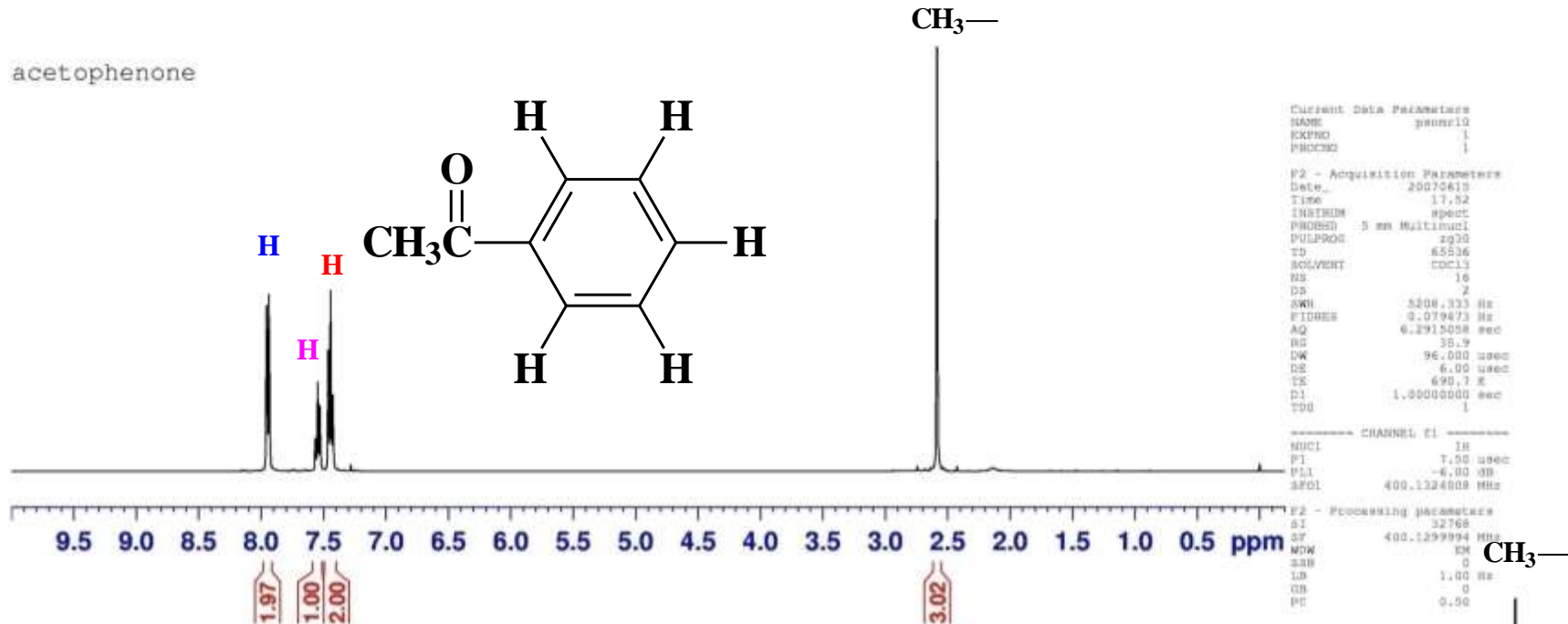
**III. Nuclear Magnetic Resonance Spectroscopy**

**L8: Interpretation of PMR Spectra of Simple Organic Compounds**

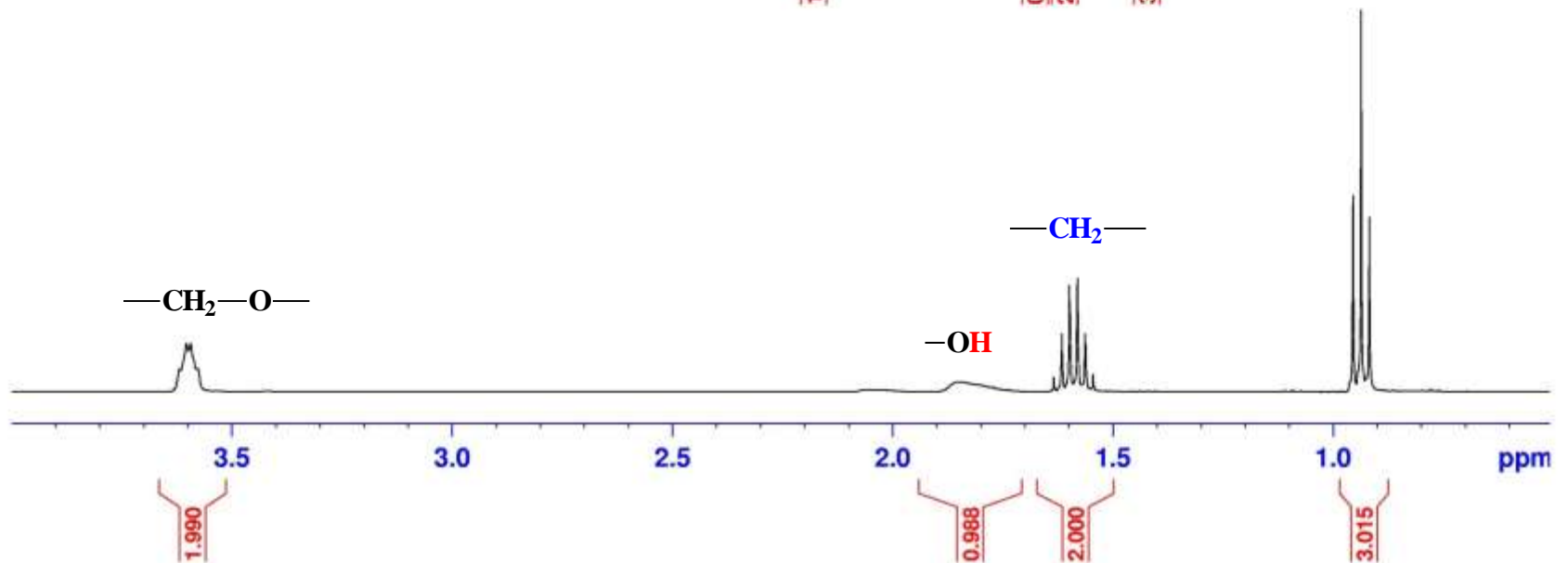
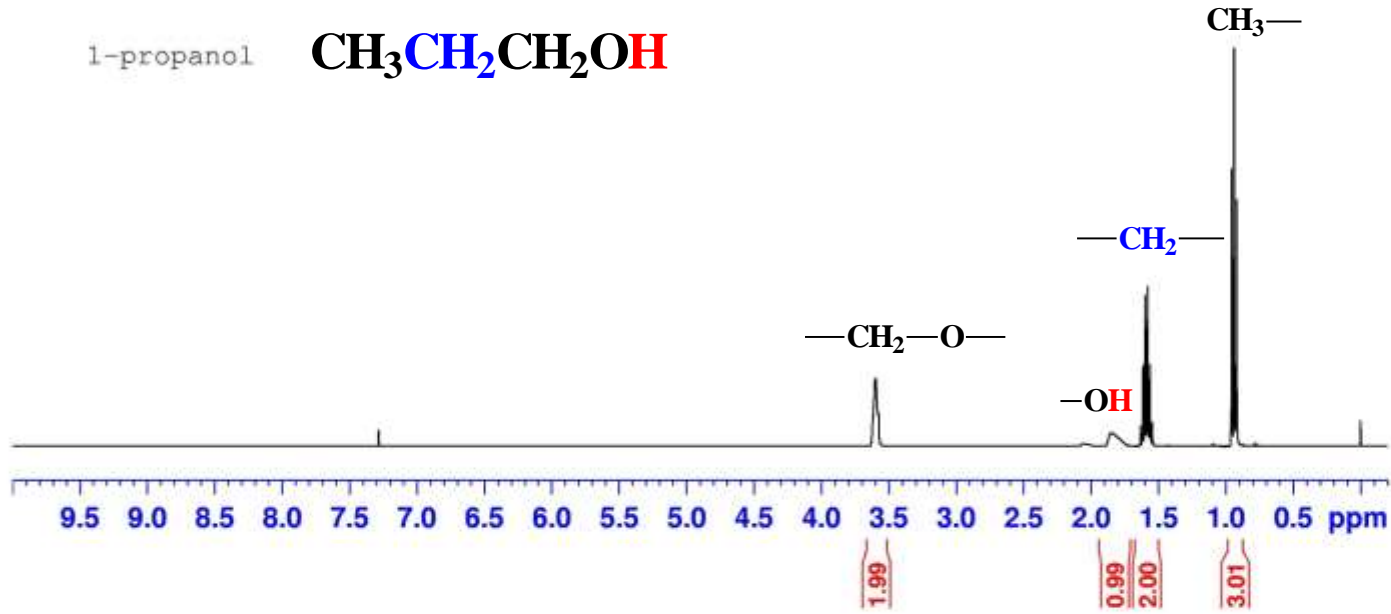


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acetophenone



1-propanol



1-butanol



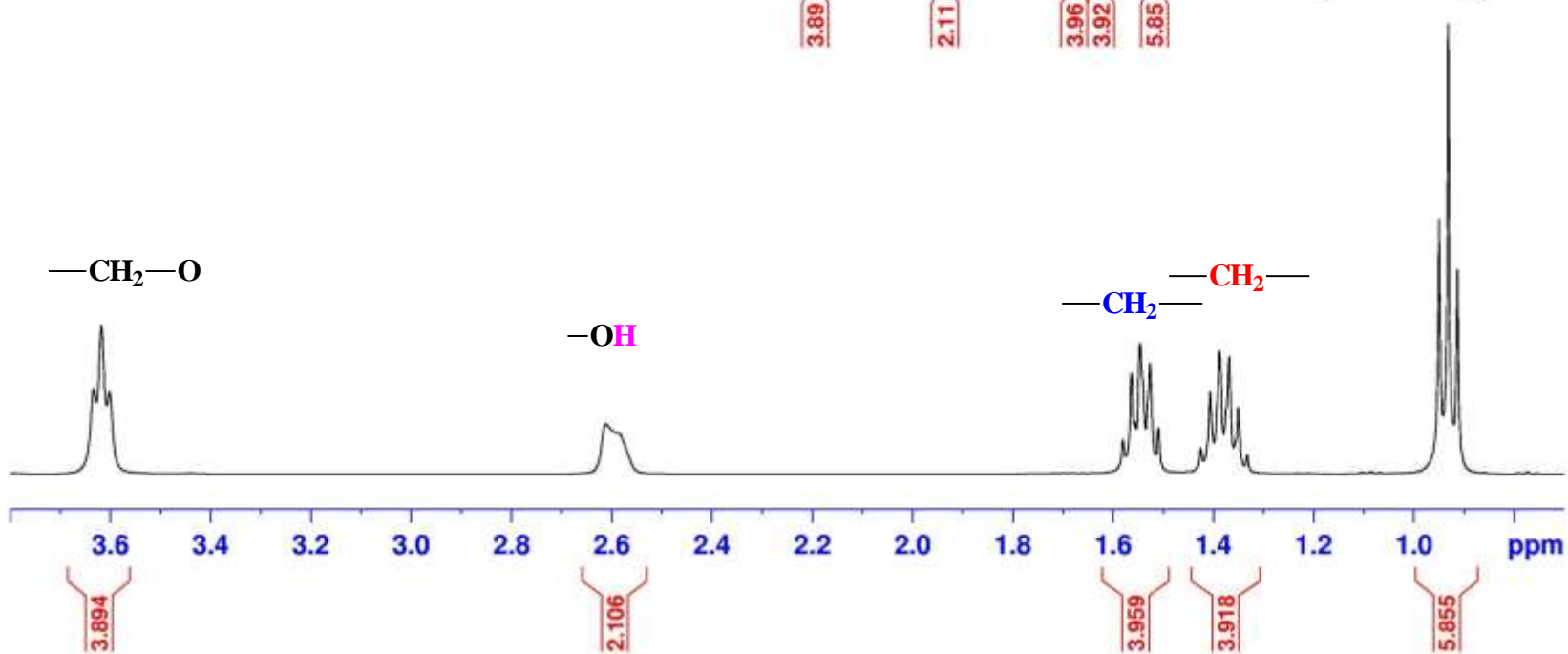
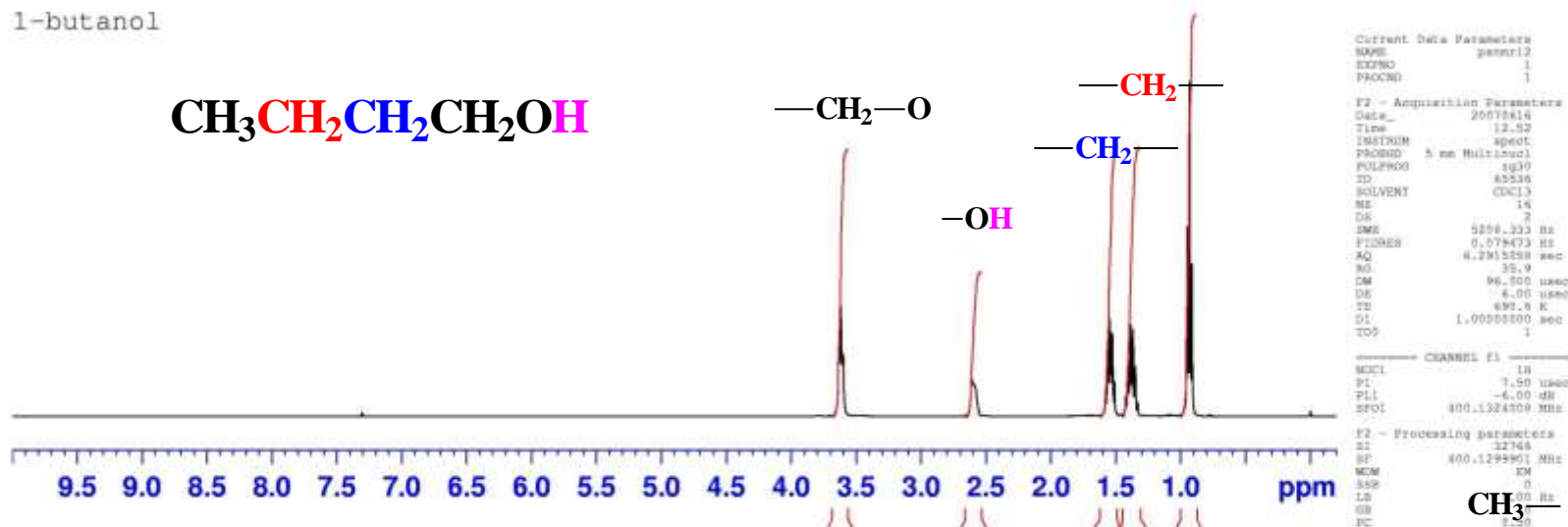
$\text{CH}_3$ —

— $\text{CH}_2$ —O

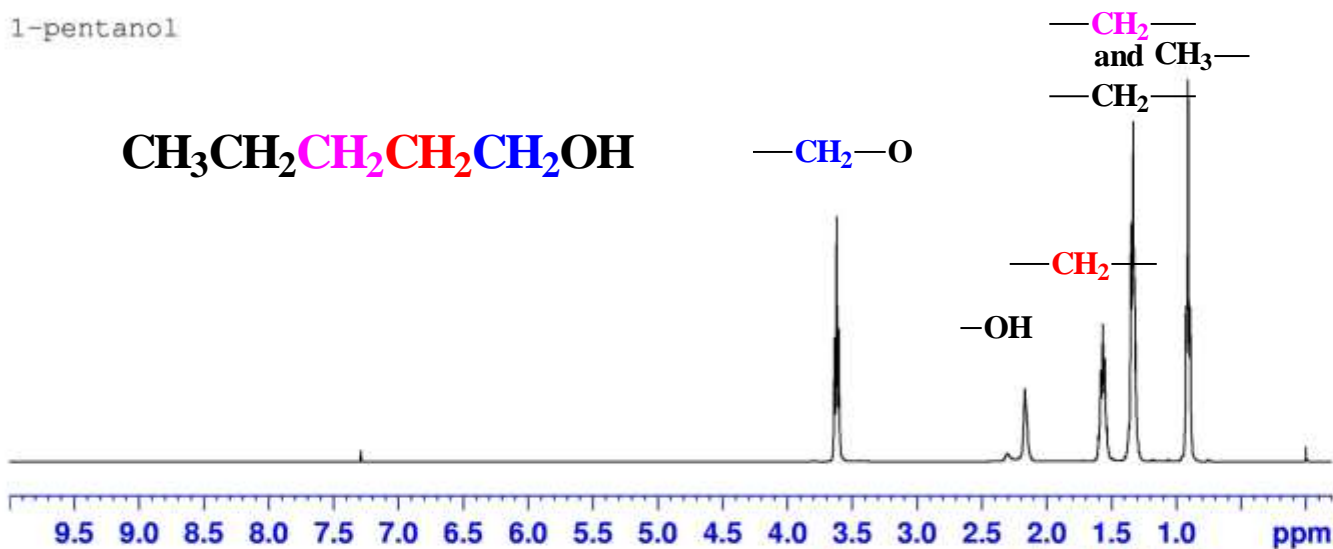
—OH

— $\text{CH}_2$ —

— $\text{CH}_2$ —



1-pentanol

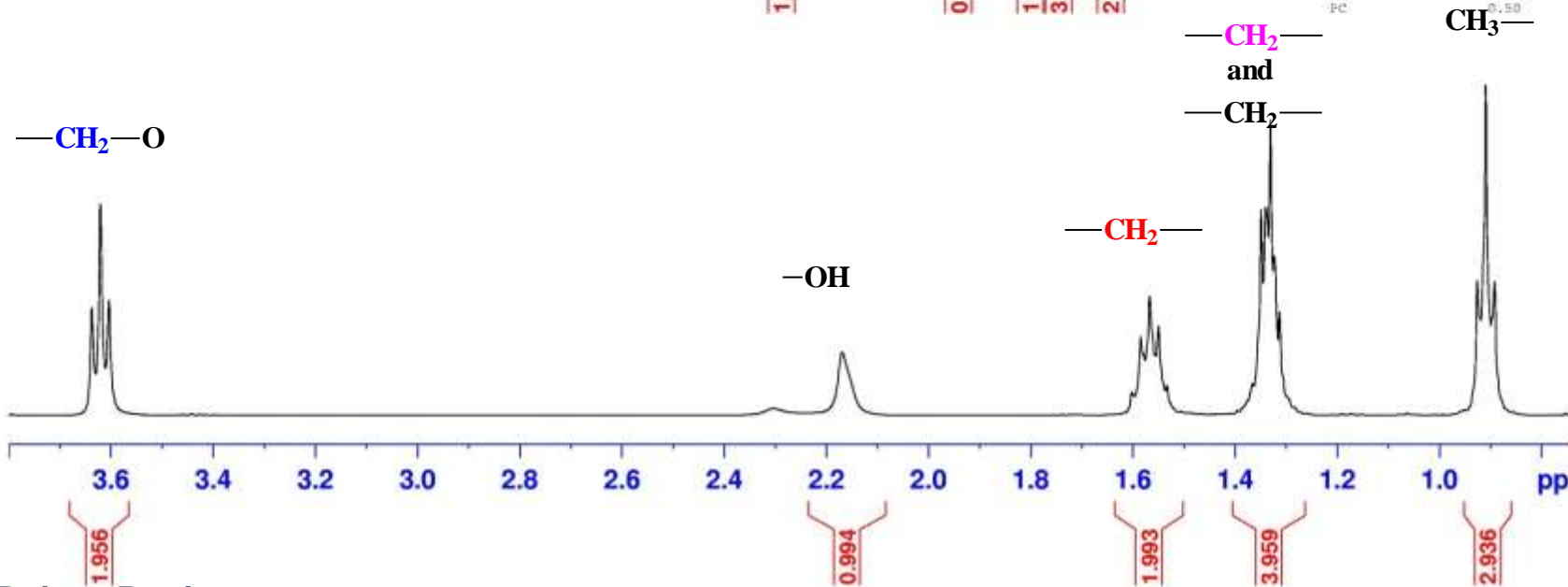


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PROCNO   1

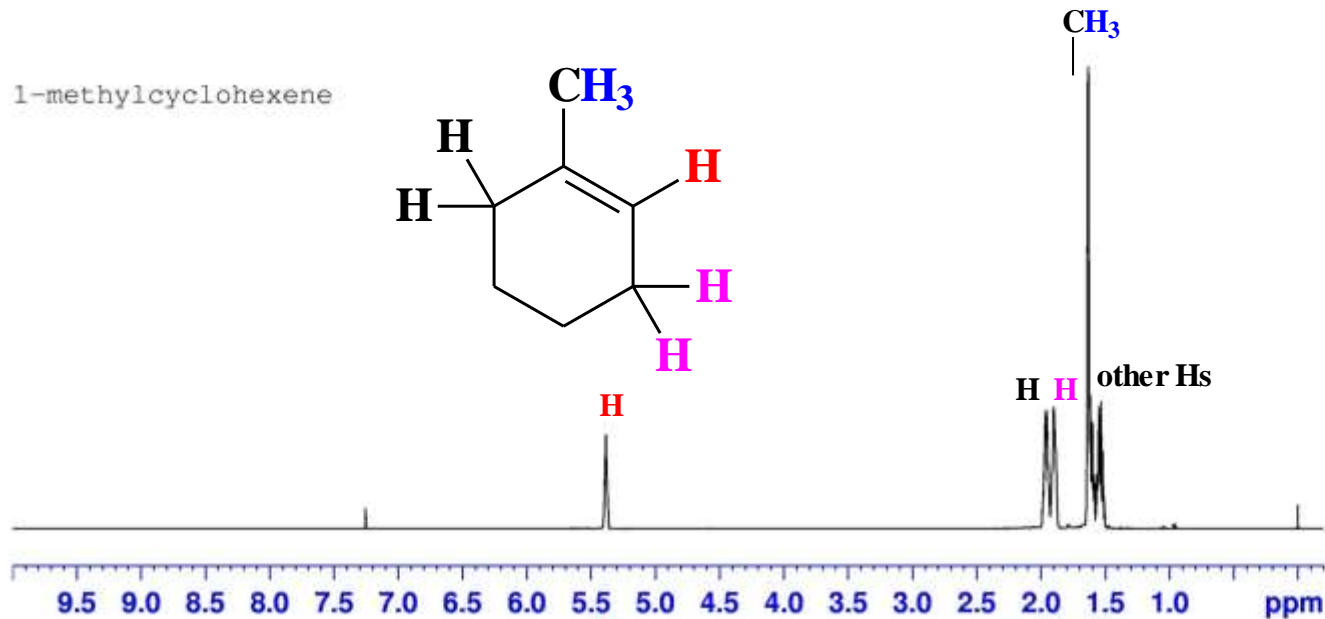
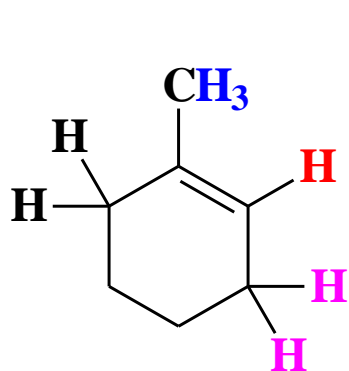
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Time     13.52
INSTRUM  spect
PROBHD   5 mm Multinucl
PULPROG  zg30
TD       65536
SOLVENT  CDCl3
NS       15
DS       2
SMB      5208.333 Hz
FIDRES   0.079473 Hz
AQ       4.2815058 sec
RG       35.9
DM       96.000 usec
DE       6.00 usec
TE       690.6 K
D1       1.00000000 sec
TD0      1
```

```
----- CHANNEL f1 -----
NUC1     1H
P1       7.50 usec
PL1      -5.00 dB
SFO1     400.1324008 MHz
```

```
F2 - Processing parameters
SI       32768
SF       400.1233943 MHz
WDW      EM
SSB      0
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GB       0
PC       0.50
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1-methylcyclohexene



```

Current Data Parameters
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EXPNO        1
PROCNO       1

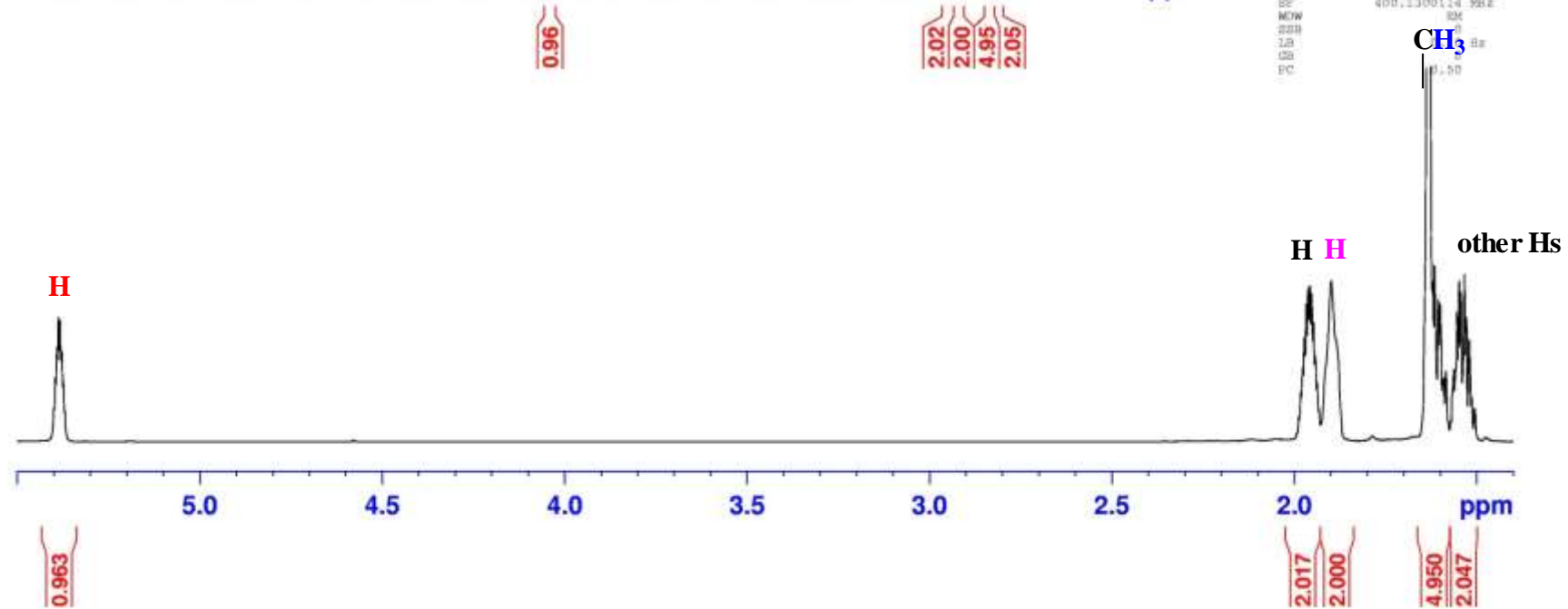
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PULPROG      zg30
TD           65536
SOLVNT       CDCl3
NS           16
DS           4
SWH          3208.333 Hz
FIDRES       0.079473 Hz
AQ           6.2915050 sec
RG           35.3
DM           35.000 usec
DE           6.00 usec
TE           690.9 K
DL           1.00000000 sec
TD0          1
    
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```

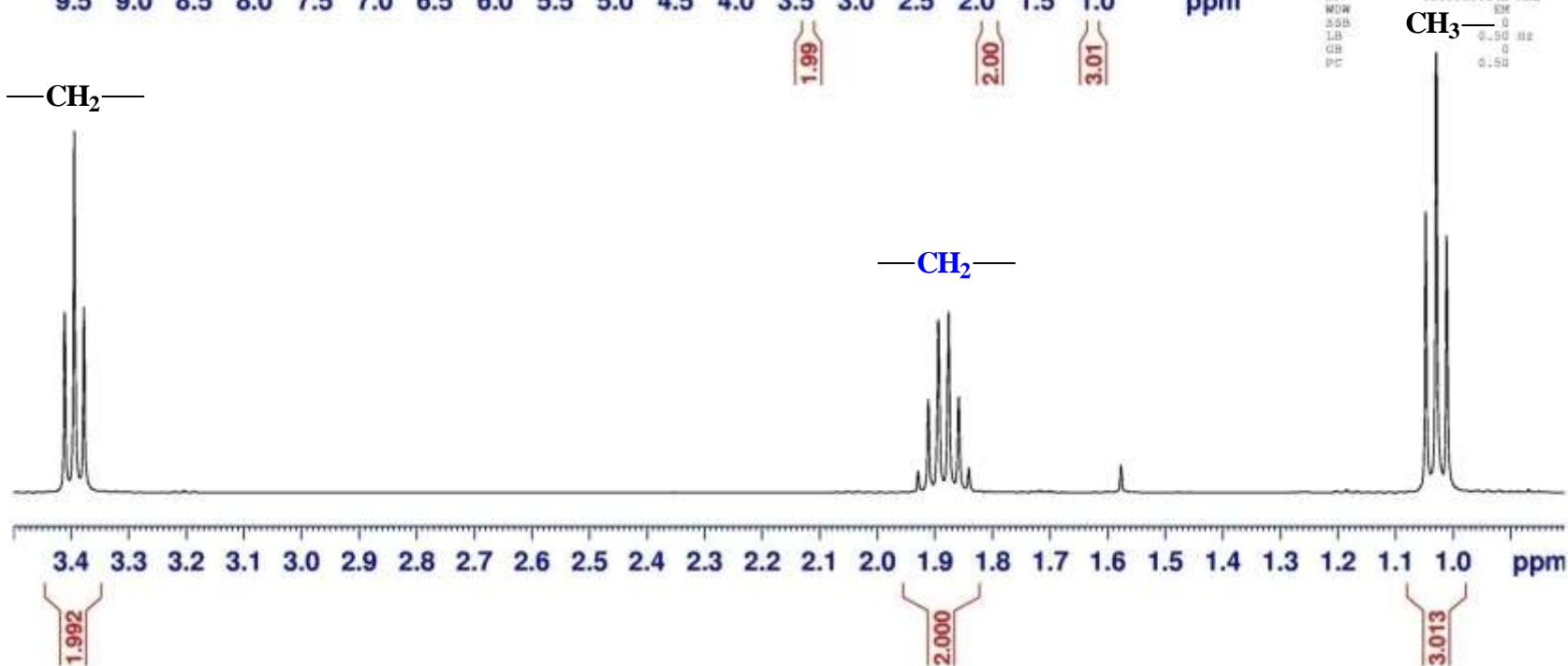
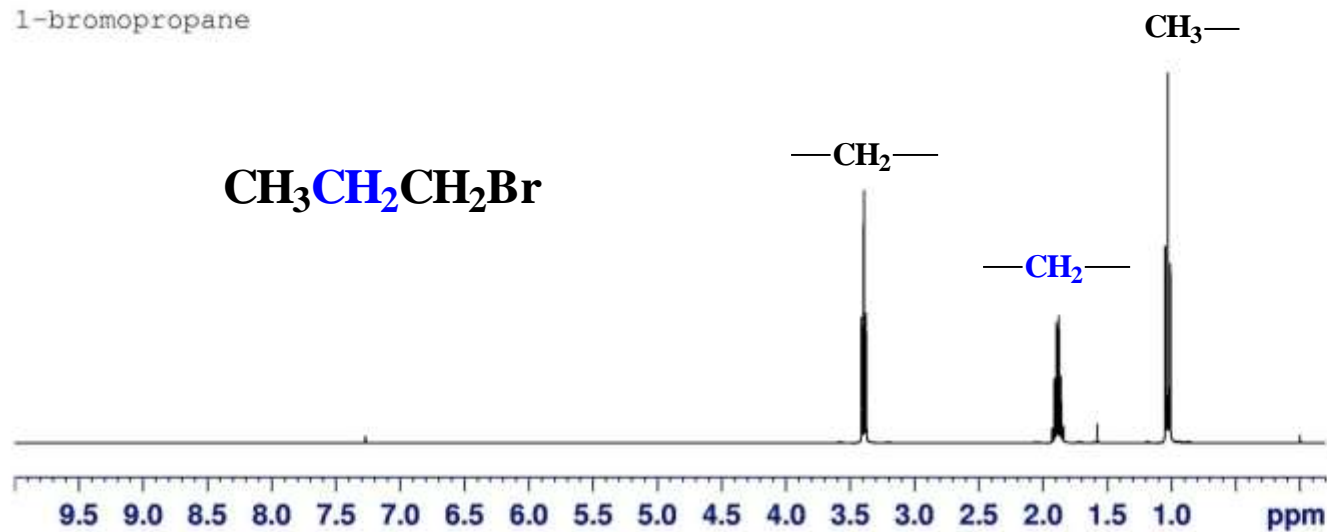
----- CHANNEL f1 -----
NUC1         1H
P1           7.50 usec
PL           -6.00 dB
SFO1         400.1324008 MHz
    
```

```

F2 - Processing parameters
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SF           400.1300124 MHz
MOW          RM
SFR          RM
LB           RM
GB           RM
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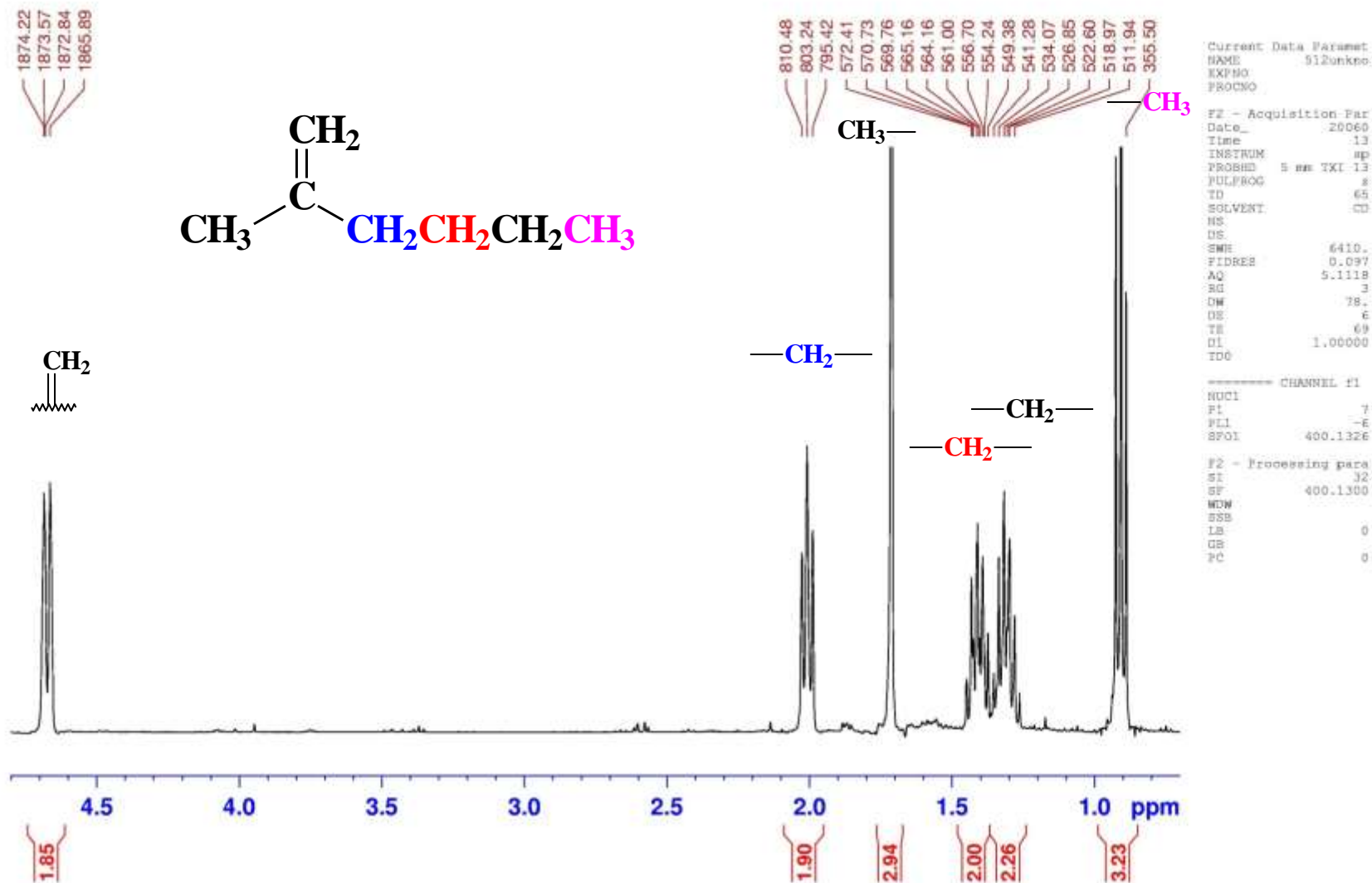


1-bromopropane



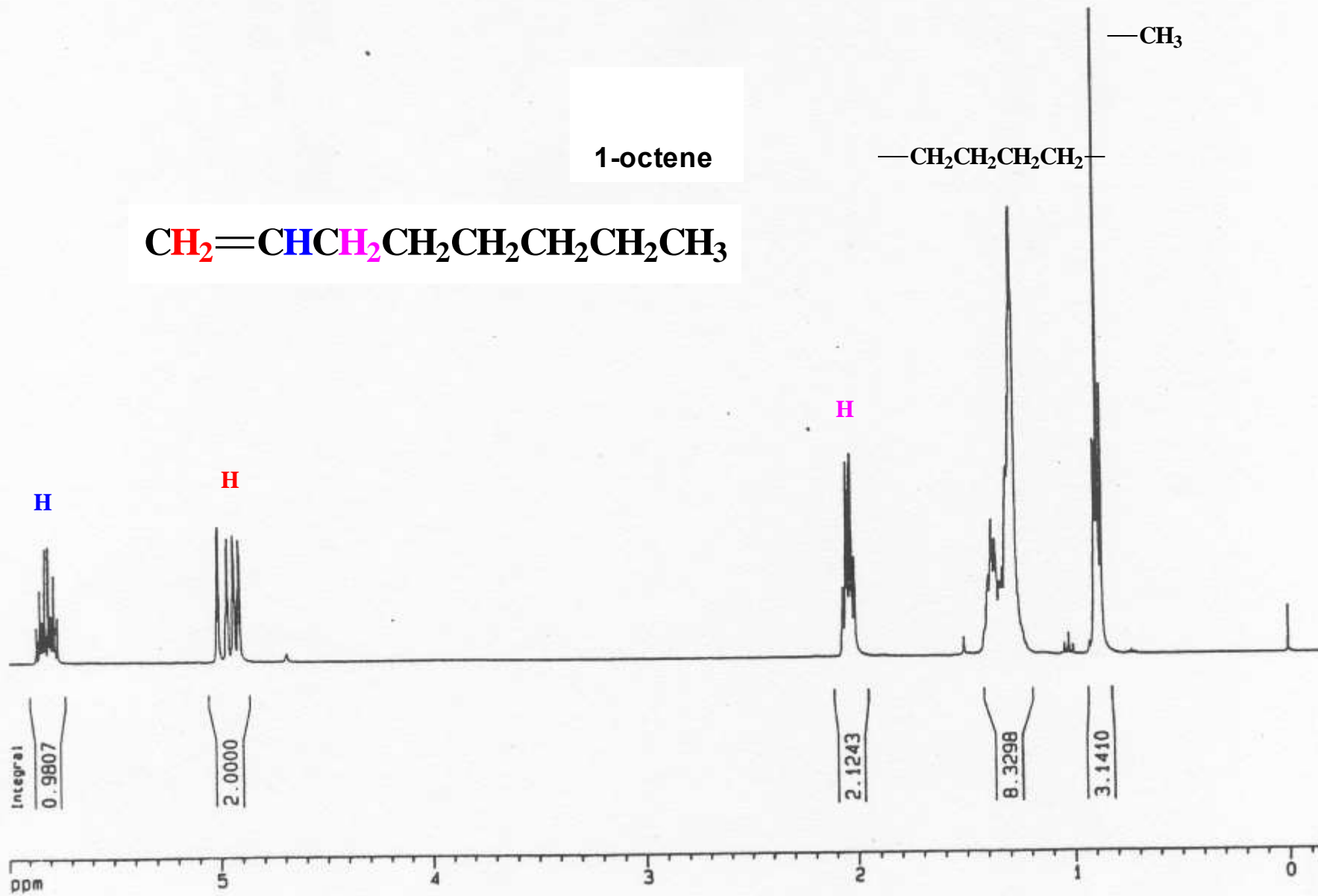
# 2-methyl-1-hexene

B. C<sub>7</sub>H<sub>14</sub>

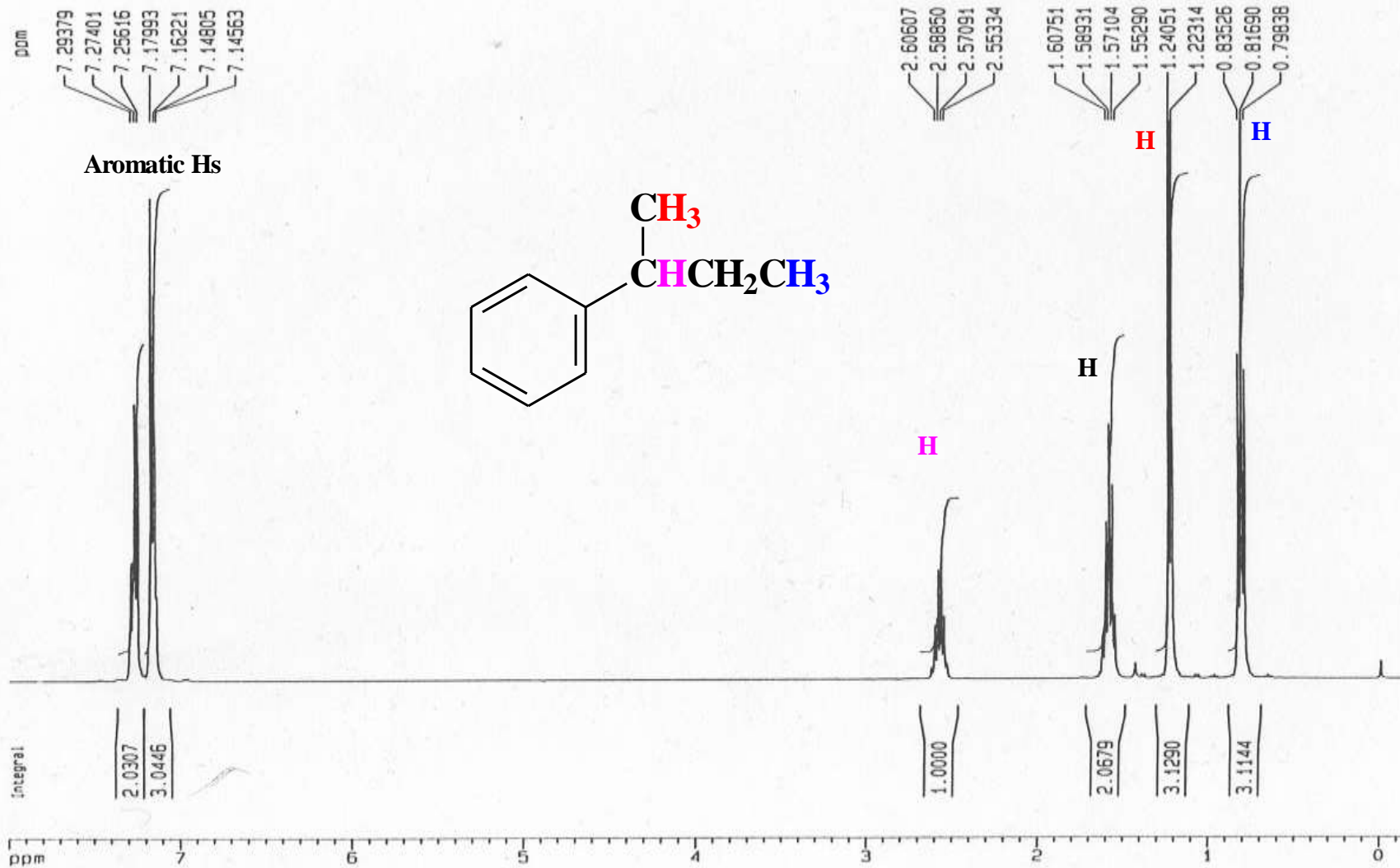




1-octene



# C<sub>10</sub>H<sub>14</sub> (sec-butylbenzene)



# Thank You



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