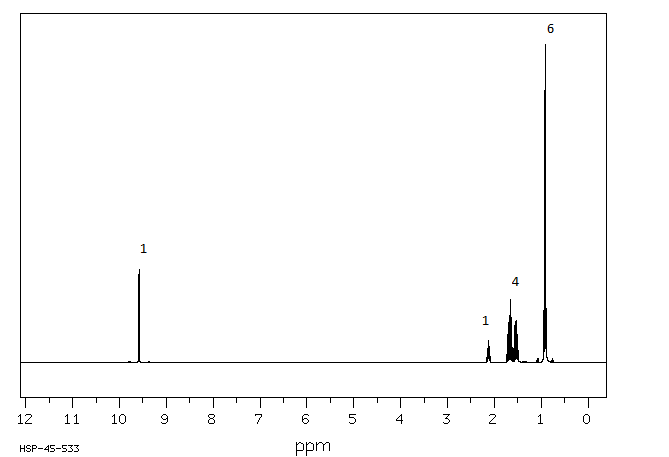
HIGH RESOLUTION PROTON NMR SPECTRA

1. Use the information in the table below to identify molecule A from its proton nmr spectrum:

|  |  |  |  |
| --- | --- | --- | --- |
| peak | chemical shift/ppm | relative intensity | peak type |
| a | 2.4 | 1 | sextet |
| b | 2.1 | 3 | singlet |
| c | 1.5 | 2 | pentet |
| d | 1.1 | 3 | doublet |
| e | 0.9 | 3 | triplet |

1. Identify the molecule responsible for the proton nmr spectrum below:



The peak at 9.6 is a doublet; the peak at 2.1 is a sextet; the peak at 1.7 is a pentet and the peak at 0.9 is a triplet

1. Identify the molecule responsible for the spectrum described below:

|  |  |  |  |
| --- | --- | --- | --- |
| peak | chemical shift/ppm | relative intensity | peak type |
| a | 8.1 | 2 | Doublet |
| b | 7.5 | 1 | Triplet |
| c | 7.4 | 2 | Triplet |
| d | 4.4 | 2 | Quartet |
| e | 1.4 | 3 | Triplet |

