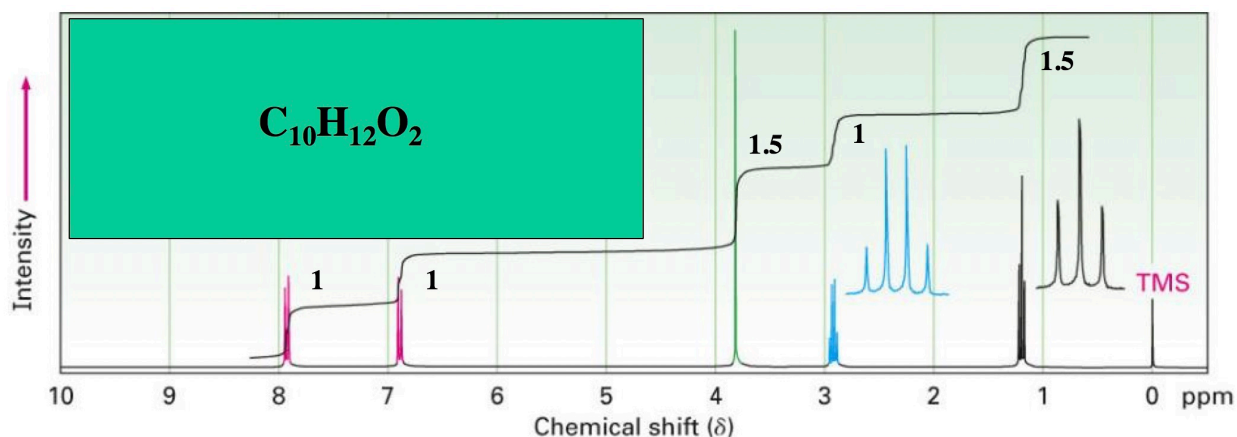


CHE 310 – 002 & 003
Lecture Homework #18

Due: Monday, March 4, 2019, 10:00 am.

1. Below is the NMR spectrum we worked on in lecture. At the end of lecture we were left with five different fragments that had to be assembled to build the final molecule.



- a) There are six possible ways the fragments can be connected to give the splitting pattern found in the spectrum. Draw all six structures. (Do not worry about chemical shift, just the splitting pattern).
- b) Using chemical shifts as a guide, circle the structure(s) that is (are) most likely the compound shown in the spectrum.
2. This is based on problem 5.8. Rank the substituents in the sets below according to Cahn-Ingold-Prelog rules.
- a) H, CH_2OH , $\text{CH}_2\text{CO}_2\text{H}$, CH_3
- b) CN, CH_2OH , $\text{CH}_2\text{CH}_2\text{Br}$, F