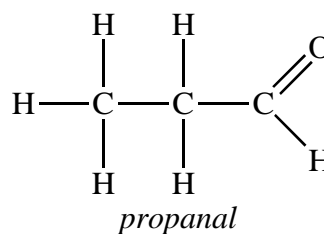
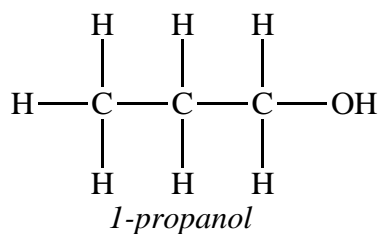


Part B Liquid Unknowns

Name of Solvent	Formula	Draw the 3D structure
acetone or 2-propanone	C_3H_6O	
ethyl acetate or ethyl ethanoate	$C_4H_8O_2$	
methanol	CH_4O	
ethanol	C_2H_6O	
1-propanol	C_3H_8O	
2-propanol or isopropanol	C_3H_8O	
methyl acetate or methyl ethanoate	$C_3H_6O_2$	
methyl ethyl ketone or 2-butanone	C_4H_8O	

Post-Lab Questions: Introduction to IR and NMR

Consider the following two molecules:



1. What should you see in their infrared spectra that should allow them to be distinguished?
2. Label each of the hydrogen atoms in the molecules above with the letters "a," "b," "c," etc. to indicate all of the different types of hydrogen.
3. For each of the molecules, draw what you would expect the ^1H NMR spectrum to look like. Label each signal with the letters that you used in question 2 ("a," "b," "c," etc.). Be sure to place the signals in the appropriate chemical shift order and to draw **and label** the appropriate splitting pattern:

