**Heat of Combustion Lab**

**Aim**: to determine and compare the heat of combustion of different fuel sources.

**Set up:**

Temperature probe

Stirring rod through

Soda tab on ring stand

Soda can calorimeter

Burner/fuel source

To computer

Possible fuel sources: (choose 2)

 Methanol CH3OH

 Ethanol CH3CH2OH

 Propanol CH3CH2CH2OH

 Butanol CH3CH2CH2CH2OH

 Paraffin (candle) C25H52

Use about 100ml of water

Remember: ΔH°c = (mH2O)(cH2O)(ΔTH2O)/#mols fuel

Write-up:

Calculate the heat of combustion for both of your fuels. Find literature values for your fuels and determine your percent error for each. Discuss the sources for error in the lab and compare the %error for your two fuels. Based on all you have discovered, which of the two fuels you looked at is better?