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Gas Chromatography – Mass Spectrometry Prelab

Last modified: June 17, 2014

Recommended reading:

AirUCI Manual: GC–MS Lab (8 pages)

Environmental Chemistry Text:

Pages: 155–156 and 236–249 on benzene and Aromatics

Pages: 247–249 on gasoline and additives

Pages: 247–249 and 319 – 320 on Fuel & MTBE

Pages: 295–302: Ethanol

Online: www.whfreeman.com/envchem5e Organic Review on Ethers and Benzene (Pages: AP8, AP11 and AP12)

Prelab Questions:

1) What are the overall goals of this Lab?

2) What is chromatography mainly used for?

3) In Mass Spectrometry, the m/z ratio of each species is measured. Explain what m/z means:

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4) Molecules undergo electron impact in our Mass Spectrometer. What two major things occur during this process?

5) Draw the molecular structures for benzene, toluene, *o* – xylene and ethanol (see Appendix for help if needed). List their molecular weights, density and boiling points.