**Abstract**

Fine particulate matter (PM) in the troposphere poses serious health risks and contributes to global climate change. The organic fraction of PM ranges from 10-90% of total particle mass. Measurement of the composition of the carbonaceous component of PM allows for source attribution. Due to the relative abundance and broad range of chemical properties of organic compounds in PM, the measurement of their composition is a significant challenge. The Gas Chromatography-Mass Spectrometry Organic Aerosol Monitor (GC-MS OAM) is an autonomous instrument which measures the carbonaceous component of PM on an hourly averaged basis. We have collected and analyzed data from various places in Utah including, Richfield, Vernal and Lindon. The similarities and differences in the carbonaceous component of PM collected in these three locations will be presented. The results from these studies provide information about the source attribution of PM in these areas.

