

## **Abstract**

### **Quantification of Formaldehyde Concentration: An Inquiry Based Laboratory in Gas Chromatography**

Formaldehyde has been shown to cause multiple symptoms in individuals who are exposed to high levels. This has proven to be especially problematic in cadaver labs used in universities where faculty and students are exposed to levels higher than federal guidelines dictate. In this research project, the problem of formaldehyde exposure was used as a platform for an inquiry based laboratory to examine gas chromatography. Students completed a laboratory using the National Institute for Occupational Safety and Health (NIOSH) procedure #2541 which tests for formaldehyde concentration in air samples using standardization by an oxazolidine derivative. The students were then given a quiz based on the laboratory with questions ranked according to Bloom's taxonomy, so the level of learning could be assessed.