

# CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s)

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**Project Number** 

J1015

### **Project Title**

# **Orange County or Ozone County?**

## Abstract

### Objectives/Goals

The purpose of my project was to research the occurrence of Ozone at ground level and investigate Ozone levels in the local area. I wanted to see if there are harmful levels of Ozone in our county and surrounding areas.

#### Methods/Materials

I used water, corn starch, potassium iodide and filter paper to prepare color paper strips known as Schoenbein paper that helps measure Ozone at ground level.

#### Results

I measured Ozone in four different local areas which are Costa Mesa, Orange Fullerton and Riverside. The results show the Fullerton area in Orange County had the highest ground level Ozone, even higher than Riverside. A very interesting result of my research was that I found that the Ozone levels I measured were much higher than the levels shown in the website of the government organization called Air Resource Board (ARB). The levels I measured were all above the levels that ARB says could be harmful to health.

#### **Conclusions/Discussion**

I researched more and found that the ARB stations were all located in higher levels than my measurement locations which were close to ground. In fact, I communicated with Mr. Ken Stroud of the ARB and he could not give me a good answer for this observation. In the future, I would recommend researching this difference with the ARB data more and find out what the cause of this difference is.

### **Summary Statement**

Measurement of ground level ozone in local areas which shows harmful levels above limits.

### **Help Received**

Father helped in boiling liquid and pick up data strip from various locations