



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Isabel R. Lally	Project Number S0511
Project Title Effect of Varying Oxidizing Agent in a Luminol Mixture on Chemiluminescence Time	
Objectives/Goals This experiment explored the question: #What is the effect of varying Molarity of the oxidizing agent (Hydrogen peroxide) used in a luminol mixture on the duration time in minutes of chemiluminescence?# Luminol is a mixture that reacts with iron, so is often used in crime scenes to determine if there is blood. In blood, the reactant is the hemoglobin, but the glow only goes on for so long. The blood patterns need to be photographed and studied, before the end time of chemiluminescence, so it is important to get the longest duration time possible. The hypothesis was: #If the varied Molarity of the oxidizing agent (Hydrogen peroxide) used in a luminol mixture is .18M Hydrogen peroxide and .018M Potassium ferricyanide, then the duration time in seconds of chemiluminescence will last the longest.# As the Molarity of oxidizing agents went up, the time period of chemiluminescence went up, up to a certain point; therefore it did not support the hypothesis.	
Abstract	
Summary Statement The concentration of hydrogen peroxide and potassium ferricyanide was varied in a luminol chemiluminescence reaction, and the luminescence time was measured.	
Help Received I received help from my father, who helped me get supplies and supervised my experiments. I also received help from my teacher with the formatting of the written report.	