

Chaya Wurman
Does Acidity Kill Your Glow?

The purpose of this project was to figure out the effect of different pH values of a luminol solution on the length of the glow produced by the solution. Specifically, this study tested what the optimum pH value for a luminol solution was to create the longest reaction time for the solution. pH values 10-12 were tested, rising by steps of 0.5. Later, to narrow down the pH values to find the true optimum pH, pH values from 10.5 to 11, rising by 0.1 were tested. Many trials of each pH level were conducted to ensure accuracy. This study found that the optimum pH level for the longest reaction time was 10.6. Another result was that with an increasing pH, the reaction time gets longer, until a after a pH of 10.6, above which the reaction time was much shorter. These results show that with a certain amount of sodium hydroxide, the factor for raising the pH level, the reaction time of the glow of the luminol solution will be the longest.