## Abstract Submitted for the TSS15 Meeting of The American Physical Society

Analysis of Reaction Rates for Chemiluminescence PETER GOOD-WIN, ADRIANNA CAMPUZANO, ALICIA MEDINA, BRITNEY WALLACE, JIM SIZEMORE, Tyler Junior College — Common dollar store glow sticks produce illumination through chemiluminescence. Desiring to explore the nature of the chemical reaction, we measured the illumination intensity versus time at three different temperatures. Four different colors: orange, green, blue, and pink were measured and fitted to an exponential model. Using Matlab we fitted our experimental data to this model to derive best fit parameters. We compared our actual data to the model to determine goodness of fit and random errors. We will comment on the chemical insights we gained through this experiment.

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