## Utilizing a Novel Fluorescent Diaminonaphthalamide Dye in the Determination of Copper from West Virginian Soils. (S02-guetzloff205246-Poster)

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## Abstract:

Copper is a naturally occurring element in the environment. Elevated concentrations of copper levels can be attributed to agricultural practices, industrial activities, waste-water treatment plants, and mining practices. In this project ED-4, a non-toxic, fluorescent, 1,8-naphthalimide dye is used to determine the concentration of copper in soil and the development of a new quantitative method will be discussed for the detection of copper in the soil. The studies demonstrate little change upon the addition of soil on the ratio of the dye used in the detection of the copper concentrations. Soils have been incubated with copper (II) ions for various times to determine the viability of the method and determine the range of the dye's response to concentration of copper in comparison to Atomic Absorption spectrometry. The comparison of the two techniques will be discussed and field feasibility explored. **Corresponding Author Information:** 

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