

Abstract Submitted
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Temperature Dependent Fluorescence Lifetime Measurements in a Phosphor CHARLES J. NETTLES, R. SETH SMITH, JONATHAN J. HEATH, Francis Marion University — This poster will describe an undergraduate senior research project involving fluorescence lifetime measurements in a $\text{LaSO}_4\text{:Eu}$ phosphor compound. Specifically, this project seeks to determine the temperature dependence of the lifetime. The temperature of the phosphor will be varied using a heater block with temperature control. The phosphor will be excited with the 337 nm output of a Nitrogen Laser. An Oriel Monochromator will be used to disperse the fluorescence, and the lifetime for a particular wavelength will be determined from a photomultiplier tube signal. At the time of the presentation, this project will be nearing completion; and I will discuss my progress, successes, and challenges.

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