

Abstract Submitted  
for the DAMOP18 Meeting of  
The American Physical Society

**Absolute Measurement of Fluorescent Quantum Yield using Photothermal Deflection Spectroscopy** STEPHEN JOHNSON, BRANDON COUCH, ANDREW MEYER, Transylvania Univ, TRANSYLVANIA UNIVERSITY TEAM — In this talk we will present a new method to measure the fluorescent quantum yield of fluorophores without the need for calibration standards. The method utilizes photothermal deflection spectroscopy – a technique known for its sensitivity in detecting low-level optical absorptions. Measurement of fluorescent quantum yield is realized through analysis of spectroscopic data, from which the quantum yield can be extracted as a single fitting parameter. This method obviates the need for calibrated reference samples, integrating sphere measurements, or even multiple measurements of the same sample, as an absolute determination of fluorescent quantum efficiency can be achieved in one measurement.

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Date submitted: 17 Jan 2018

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