

Abstract Submitted  
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**The Lifetime of Quenched and Unquenched Fluorescent Processes** ANDREW HOUT, DEBRA EGOLF, DENNIS KUHL, Marietta College — Properties of both quenched and unquenched fluorescence excited states of 9-cyanoanthracene and 9,10-dicyanoanthracene were measured to investigate if upon interaction with a quencher the cyanoanthracenes are quenched by an electron transfer process. The overall quenching rate constant,  $k_q$ , was determined through laser-based kinetic measurements of the lifetime of quenched and unquenched fluorescent processes. Values of  $k_q$  were calculated from this data using a deconvolution method. Instrumentation and calculation methods were investigated and improved.

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