

Abstract Submitted  
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**Photophysical Study of Novel Perylene Analogues for Biophysical Applications**<sup>1</sup> JORGE PALOS-CHAVEZ, Department of Physics and Astronomy, UT San Antonio, MARK PENICK, Department of Chemistry, UT San Antonio, ROLANDO VALDEZ, University of Texas Southwestern Medical Center, GEORGE NEGRETE, Department of Chemistry, UT San Antonio, LORENZO BRANCALEON, Department of Physics and Astronomy, UT San Antonio — Perylene and perylene derivatives have been shown to be useful in a variety of photoinitiated applications, such as molecular dyes, organic solar cells, etc. Recently we started the characterization of novel 3,9-peryene analogues which could potentially lead to the synthesis of novel molecules with improved ability to separate charges. We have characterized the basic photophysical properties of these molecules, and we are currently investigating the photochemistry that leads to photoproducts in chlorinated compounds. Spectroscopic measurements show the substantial changes in photophysical parameters consistent with the conversion of the original compounds into photoproducts. SEM and AFM imaging show that these photoproducts form ordered particles. Mass spectrometry studies have confirmed the presence of these photoproducts as well.

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