

UCA Department of Chemistry Seminar

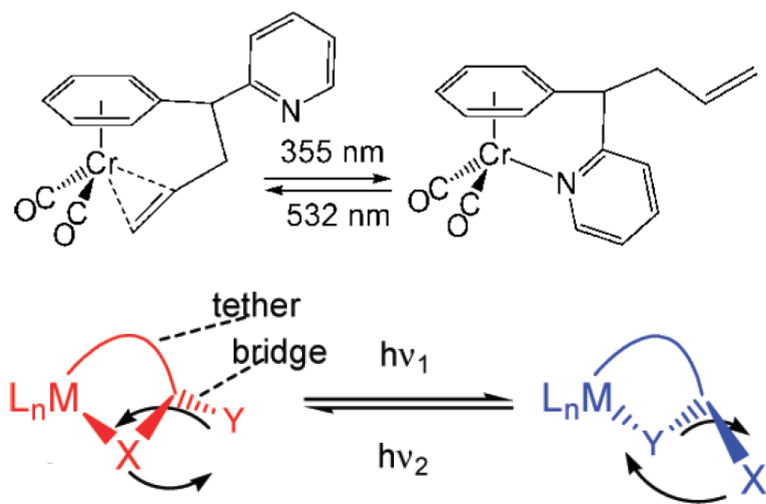
February 8, 2013 2:00 pm Laney 104

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Webster

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Designing and engineering organometallic photochromic systems

Studies of photochromic systems based on reversible photo-substitution reactions have shown promise for use in molecular devices. Complexes of the type $\text{CpMn}(\text{CO})_2\text{L}$ and $(\text{Arene})\text{Cr}(\text{CO})_2\text{L}'$ (where L and L' are chelating, bifunctional tethered side-chains) are being designed as bistable, photochromic systems. Our group has reported experimental and computational results in support of a linkage isomerizations of $(\eta^5\text{-C}_5\text{H}_4\text{R})\text{Mn}(\text{CO})_2$, where $\text{R} = \text{CH}_2\text{C}(\text{O})\text{pyridyl}$ and $\text{Cr}\{\eta^6\text{-C}_6\text{H}_5\text{CH}(\text{2-Py})\text{CH}_2\text{CH}=\text{CH}_2\}(\text{CO})_2$ complexes. We have also developed experimental model complexes to study these systems. In this presentation, I will describe our use of density functional theory calculations during the study of these systems.



Lunch provided for students with the seminar speaker from
12:00 – 1:15 pm in Laney Hall Rm 105.
Contact P. Desrochers (patrickd@uca.edu) for more information.