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**Chemistry Seminar Series   
Spring 2016**

**Time: 12:30-2:00 PM Place: Science Hall West 301 **

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**When: Thursday, April 7th,2016**

**“Cyclopentadiene-containing π-conjugated macromolecules: Structure/property Correlations and Comparisons to their Aromatic Congeners”**

Many electronic devices rely on organic (macro)molecules to adopt polyene-like quinoidal structures under operationally-relevant scenarios, a phenomenon that occurs by breaking the aromaticity of the repeat units.  As such, enhancing the polyene-character of a material by introducing non-aromatic π-conjugated constituents into the system is considered a promising approach to promote quinoid formation.  This presentation will disclose the results of a comparative analyses encompassing poly(phenylene), poly(3-hexylthiophene), and poly(fluorene)-based copolymers bearing alternating thiophene (PPT, P3HTT, and PFT) and 5,5-dimethylcyclopentadiene co-repeat units (PPCp, P3HTCp, PFCp).  Details examining how the identity of the latter manipulates the optical absorption, photoluminescence, thermal properties, (spectro)electrochemistry and atmospheric stability of these systems will be discussed.