

## POLYMER PROGRAM SEMINAR

(Co-sponsored with the MSE Dept.)

## "Graphene-Enabled Bio-Nano Hybrids for Chemical Detection"

## **Prof. A.T. Charlie Johnson University of Pennsylvania**

## Friday, September 26, 2014 11:00 AM, IMS Room 20

We have explored all-electronic chemical detectors based on bio-nano hybrids, where the biomolecule (DNA or protein) provides chemical recognition and a carbon nanotube (NT) or graphene transistor enables electronic readout. This sensor class represents a promising approach towards sensitive and selective detection of liquid- and vapor-phase anayltes. Rapid advances in nanomaterials research and biomolecular engineering offer the prospect of optimizing the performance of each component of the hybrid to yield sensors with enhanced sensitivity and specificity for arbitrary chemical targets.

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