

- x Spray based deposition of macromolecular thin films and interfaces
- x Photoemission spectroscopy on organic semiconductor materials interfaces
- x Work function measurements
- x Directed assembly of macromolecular materials
- x Biosensors
- x Thin film photovoltaics
- x New substrate materials for Matrix Assisted Laser Desorption/Ionization Mass spectrometry (MALDI-MS)

#### Recent Publications

- x M. M. Beerbom, R. O. Coats, J. A. Anderson, R. Schlaf: "Determination of the Electronic Structure of Self-Assembled Ribonucleic Acid and Adenine Residues on a Graphite Surface by Photoemission Spectroscopy" Langmuir 21 (8), pp.3553-3558 (2005).
- x J. Magulick, M. M. Beerbom and R. Schlaf: "Comparison of Ribonucleic Acid Homopolymer Ionization Energy and Charge Injection Barriers", Journal of Physical Chemistry B 110 pp.15975-15981 (2006).
- x J. Magulick, M. M. Beerbom and R. Schlaf: "Investigation of Adenine, Uracil, and Ribose Phosphate Thin Films Prepared by Electrodeposition Using Photoemission Spectroscopy", Thin Solid Films 516 (9), pp.2896-2906 (2008).
- x Y. Yi, J. E. Lyon, M. M. Beerbom and R. Schlaf: "Orbital alignment at the poly(2-ethylhexyloxy)p-