

Dr. Rudy Schlaf received his Ph.D. in Physics (1995) at the Technical University in Berlin, Germany. He has been Post Doctoral Fellow at Colorado State University, the University of Arizona, Kobe University and the University of Osaka. He then joined the Naval Research Laboratory as Staff Researcher until he became Assistant Professor at the State University of New York at Binghamton. In fall 2000 he moved to USF.

Research Interests

Dr. Schlaf's main research interests currently span the following areas:

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

Recent Publications

- M. M. Beerbom, R. Gargagliano and R. Schlaf: "Determination of the Electronic Structure of Self-Assembled L-cysteine/Au Interfaces Using Photoemission Spectroscopy", *Langmuir* 21 (8), pp.3551-3558 (2005).
- B. Lagel, M. D. Ayala and R. Schlaf: "Kelvin probe force microscopy on corona charged oxidized semiconductor surfaces", *Applied Physics Letters* 85 (20), pp.4801-4803 (2004).
- 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.15973-15981 (2006).
- J. Magulick, M. M. Beerbom and R. Schlaf: "Investigation of Adenine, Uracil, and Ribose Phosphate Thin Films Prepared by Electrospray In-Vacuum Deposition Using Photoemission Spectroscopy", *Thin Solid Films* 516 (9), pp.2396-2400 (2008).
- Y. Yi, J. E. Lyon, M. M. Beerbom and R. Schlaf: "Orbital alignment at poly[2-methoxy-5-(2-ethylhexyloxy)-p-phenylene vinylene interfaces]", *Journal of Applied Physics* 102, Art.No. 023710 (2007).

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