Guoqian Jiang

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Research Summary: My current research involves layer-by-layer self-assembly of polyelectrolytes in various applications such as sensor, nanopatterning and drug delivery, self-assembled monolayer study and nerve agent sensing.

Education:

2000-2003 Department of Chemistry Graduate Study

University of Science and Technology of China (USTC)

1996-2000 Department of Chemistry BE

Anhui University

Research Experience:

1999-2000: Photoluminescence Properties of Fumerene (C60) Polymer

2001-2003: Electrodeposition; Flow Injection Analysis Electrochemical Sensor for Trace Metal Ions Detection

2004-present: Layer-by-layer Self-assembly; Self-assembled Monolayer; Nanopatterning on Conjugated Polymer Ultrathin Films; Precursor Polymer Synthesis; Gold Nanoparticles Synthesis; Nerver Agent Sensing; Drug Delivery

Instrumentation:

SPR, AFM, QCM, Electrochemistry, UV, Fluorescence, FT-IR, Raman

Conferences and presentations:

03/2006 231st ACS National Meeting & Exposition, Atlanta, GA (presented)

10/2005 49th Welch Conference, Houston, TX

Honors:

1997-2000 Outstanding undergraduate scholarship, Anhui University

2002 Guanghua outstanding graduate award, USTC

Publications and preprints:

1, **Guoqian Jiang**, Akira Baba, Rigoberto C. Advincula* "Nanopatterning of Layer-by-Layer Ultrathin Films Containing PEDOT: PSS Using Current Sensing Atomic Force Microscopy (CS-AFM)" Langmuir *ASAP* article

2, Akira Baba, **Guoqian Jiang**, Kang-Min Park, Jin-Young Park, Hoon-Kyu Shin, and Rigoberto Advincula* "Electro-Nanopatterning of Surface Relief Gratings on Azobenzene Layer-by-Layer Ultrathin Films by Current-Sensing Atomic Force Microscopy" J. Phys. Chem. B *110(35)*,17309 – 17314.

3, Akira Baba, Jin Young Park, **Guoqian Jiang**, Prasad Taranekar, Chengyu Huang, Rigoberto C. Advincula* "Nanopatterning and nano-charge writing in layer-by-layer ultrathin films" PMSE Preprints 2005, 93, 351-352

4, Chengyu Huang, **Guoqian Jiang**, Prasad Taranekar, Rigoberto C. Advincula* "Electrochemical nanopatterning of ultrathin films of carbazole functionalized polyelectrolyte precursor polymers" (accepted by PMSE Preprints, Proceedings Published 2006 by the American Chemical Society)

5, **Guoqian Jiang**, Suxiang Deng, Akira Baba, Chengyu Huang, Rigoberto C. Advincula* "Investigation of dendron adsorption behavior using surface plasmon resonance spectroscopy and atomic force microscopy" (accepted by PMSE Preprints, Proceedings Published 2006 by the American Chemical Society)