



*ECS Vice President Dr. Jan Talbot recently visited the South Texas Local Section. Pictured here are (left to right) Dr. Michael Pishko (Secretary), Dr. Jan B. Talbot, Dr. Arumugam Manthiram (Chairman), Professor Harovel G. Wheat (Vice-Chair), and Dr. Adrian Denvir (one of the speakers).*

### Chicago

The Section held a meeting on May 26. Dr. David Goad, of Boundary Technologies, Buffalo Grove, IL, presented "Electrochemical Etching for Aluminum Electrolytic Capacitors." Dr. Goad discussed aluminum electrolytic capacitors in all electrical equipment. In his remarks, he said that a main development objective is to maximize the capacitance per unit volume. This depends on the interior geometry of the etched foil and control of this geometry requires confronting some fundamental aspects of electrochemistry.

### Detroit

The Section held a dinner meeting on May 12 at the Ukrainian Cultural Center. Dr. Narayan Doddapaneni from IMRA America Inc., Ann Arbor, MI, spoke on "Metal Macrocyclic Complexes as Catalysts in Fuel Cells." He stated that presently, platinum and/or platinum-ruthenium mixes are extensively used to catalyze the oxidation and reduction reactions in fuel cells. Although the catalyst is expensive, considerable progress has been made to reduce the Pt loading in the electrodes; however, a major problem continues to be fuel impurities. He stated that highly stable metal macrocyclic complexes have been developed as

alternative catalysts, which showed good catalytic activity for both the oxidation of the fuel and the reduction of oxygen.

### South Texas

The Section held a meeting on April 17 at the University of Texas at Austin. Professor Jan B. Talbot, Vice-President of the Society gave an overview of the Society and a technical presentation on "Electrophoretic Deposition in the Processing of Information Displays." Following her presentation, there were four other presentations at the meeting. Professor Dean Neikirk of the University of Texas at Austin presented "Micromachined Array-based Multi-analyte Chemical Sensors: Toward the Fabrication of an Electronic Tongue"; Professor Michael Pishko of the Texas A&M University presented "Biochemical Sensors Based on Nanometer Scale Thin Films"; Dr. Adrian Denvir, of Lynntech, Inc. presented "Electrochemical Preparation and Applications of Alkali Metal Ferrates"; and graduate student Wen-Jie Qi of the University of Texas at Austin presented "Applications of High-k Materials as Alternative Gate Dielectrics for Ultra Large Scale Integrated Circuits."

The Section held a meeting on June 16 at the University of Texas at Austin. At the meeting, a symposium honoring Professor Allen J. Bard was held.

The meeting began with welcoming remarks from the local section chairman, Professor Arumugam Manthiram. Then the symposium honoring Professor Allen J. Bard began with introductory remarks by the University of Texas at Austin President Larry R. Faulkner. At the symposium, there were five presentations. Professor Adam Heller of the University of Texas at Austin presented "Sensing of Bioaffinity Reactions: Electrochemical Verification of PCR-Amplification, DNA and Immunosensors"; Professor Richard Crooks of the Texas A&M University presented "Dendrimer Encapsulated Metal Particles for Homogeneous and Heterogeneous Catalysis"; Dr. Chongyang Liu of the University of Texas at Austin presented "Organic Single Crystal Thin Films Preparation and Characterization"; Dr. Yanbing Zu of the University of Texas at Austin presented "Inverted-Region Electron Transfer Demonstrated by Electrogenerated Chemiluminescence at the Liquid/Liquid Interface"; and graduate student Junfeng Zhou of the University of Texas at Austin presented "Application of Scanning Electrochemical Microscope to the Study of Charge Transfer Through Bilayer Membrane." The meeting concluded with closing remarks by the local section treasurer, Dr. Zoran Minevski.

### Metropolitan New York

The Section held a meeting on May 19 in Iselin, NJ. Thomas P. Moffat of the Materials Science and Engineering Laboratory of the National Institute of Standards and Technology, Gaithersburg, MD, spoke on "Electrodeposition of Metallic Multilayers." An overview of the electrochemical deposition of strained-layer superlattices of Cu/(Fe, Co, Ni) was given. These materials exhibit interesting mechanical and magnetotransport properties. In the later case, the giant magnetoresistance effect associated with Cu/Co multilayers may be implemented in future magnetoelectronic devices. In this talk, the close connection between processing parameters and the resulting microstructure and magnetic properties was outlined. The important subject of growth stability and roughness evolution was discussed along with the impact of substrate selection on the resulting multilayer microstructure.

Finally, the utility of using in-situ STM to study metal deposition was examined with a particular focus on the remarkable influence of adsorption phenomena on film growth.

### National Capital

The Section held the Foley Award and Science Fair Night on May 20 in Alexandria, VA. Dr. Jerome Kruger, of Johns Hopkins University, was the Foley Award speaker and presented a lecture on "Pursuing Mr. Faraday's Peculiar Condition with my Students and Colleagues." ■

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### Local Section Events

*Interface is always looking for news of your upcoming Section events to publish.*

*Send your announcements to Interface, 10 South Main Street, Pennington, NJ 08534 or e-mail us at: [membership@electrochem.org](mailto:membership@electrochem.org).*

***Special Symposium in honor of Allen J. Bard***—(top photo) University of Texas at Austin President Larry R. Faulkner (left) presents a plaque to Professor Allen J. Bard; (bottom photo) Members of the South Texas Local Section with Prof. Bard (left to right) Dr. Zoran Minevski, Professor Harovel G. Wheat, Professor Allen J. Bard, Professor Arumugam Manthiram, Professor Michael Pishko, Professor Richard Crooks.

