

## ECS & DOE SUMMER FELLOWSHIP WINNERS

Each year The Electrochemical Society and the U.S. Department of Energy give up to eight Summer Research Fellowships to assist students in continuing their graduate work during the summer months in a field of interest to the Society. This year's Summer Fellowship recipients are:



The recipient of the Society's Edward G. Weston Summer Research Fellowship, **Peter W. Wuelfing**, received his BS in 1996 from the University of North Carolina (UNC). He is currently a fourth-year graduate student in the PhD program working in Professor Murray's laboratory. His research involves the modification of electron

transfer in alkanethiolate monolayer protected Au nanoparticle films by varying factors such as core charge, ligand conjugation, and the introduction of covalently attached redox-groups.



The recipient of the Society's Colin Garfield Fink Summer Research Fellowship, **Alechia Crown**, received her BS degree from the University of Utah where she did research with professor Joel Harris, studying surface wetting characteristics. Currently she is working under the direction of Andrzej Wieckowski at the University of Illinois where she is

working on dynamic investigations of surface adislands on platinum electrodes using *in-situ* surface probe methodes.



The recipient of the Society's Joseph W. Richards Summer Research Fellowship, **Biao Liu**, received a BS in chemistry from the University of Science and Technology of China (USTC) in 1984, and an MS in chemistry in 1987 from USTC. From 1987 to 1996, he worked as a lecturer of chemistry at Anhui University in China. His research interests

included electrocatalysis, electrosynthesis, and kinetics of reactions on surface modified electrodes.

Liu entered the PhD program in chemistry at the Graduate School and University Center of the City University of New York. He is currently working under the direction of Dr. Michael V. Mirkin and is conducting research on quantitative mechanistic studies of charge transfer (electron and ion transfer) at the liquid/liquid and liquid/membrane interfaces. His main objective is to explore and establish fundamental relationships between the properties of the phase boundary and kinetics of heterogeneous charge transfer processes. The developed methodologies will then be applied to the studies of living cells, in which interfacial charge transfer reactions are of great importance.

The following are recipients of the U.S. Department of Energy Fellowships:



**Kevin Cooper** received his B. Appl. Sc. (metals and materials engineering) from the University of British Columbia (UBC) in 1992. While studying at UBC he did a summer internship as a corrosion researcher in the pulp and paper industry. In 1996, he received an MS degree for his work on the exfoliation corrosion of aluminum alloy 7075

from the department of materials science and engineering at the University of Virginia (UVA). He spent a year traveling and then returned to UVA to pursue his PhD. Currently, he is investigating the electrochemistry of environment-assisted cracking of Al-Zn-Mg-Cu alloys. Cooper expects to graduate in January 2001.



**Kyle Grant** received his BS in chemistry from Central Washington University in 1997. As an undergraduate, Kyle was selected as a McNair Scholar, where he found an interest in chemical research while working on an environmental chemistry project. In the summer of 1996, Kyle was a NSF-REU participant at the University of Nebraska-Lincoln,

working in the area of bio-analytical mass spectrometry. He is currently pursuing a PhD in analytical chemistry at the University of Utah under the direction of Henry S. White. His research focuses on the use of magnetic fields to control and enhance molecular transport in electrochemical systems.



**Darren Hansen** received a BSE in chemical engineering from the University of Michigan in 1995. He worked for Dow Chemical Company and Dow Corning on a variety of technical projects as a summer undergraduate student. He is currently a student at the University of Wisconsin pursuing a PhD in chemical engineering, under the supervision of Professor Thomas Kuech. Hansen's thesis research focuses on the use of borosilicate glasses for wafer bonding and materials integration of III-V semiconductors with silicon and other integration platforms.



**Jocelyn F. Hicks** graduated from Spelman College in Atlanta, Georgia with a BS in 1997. Currently she is a third-year graduate student in Royce W. Murray's laboratory at the University of North Carolina at Chapel Hill. Her research has focused on studying the fundamental properties of monolayer protected gold nanoclusters.

Specifically she has been interested in evaluating and manipulating their double layer capacitance, and heterogeneous electron transfer rates.



**Zenghe Liu** received his BS (1985) and MS (1988) in chemistry from the University of Science and Technology in Beijing, China. He then served as a research engineer at the Central Iron and Steel Research Institute of China. In 1994, he joined Professor Stephen L. Gipson's research group and earned an MS from Baylor University. Mr. Liu is

currently pursuing a PhD under the direction of Professor Fred C. Anson at the California Institute of Technology. His research involves the study of chemistry, electrochemistry, and catalytic activities of oxovanadium-Schiff base complexes toward oxygen reduction.

## ECS & DOE Summer Research Fellowships

The Electrochemical Society is currently soliciting applications for the 2001 Society Summer Fellowships, which are given each year to assist a student in continuing his/her graduate work during the summer months in a field of interest to the Society. Each year the Society gives up to four such fellowships, worth \$4,000 each.

In order to be eligible for a Summer Fellowship, the individual must be a graduate student pursuing work between the degree of BS and PhD, in a college or university, who will continue his or her studies after the summer period. A previous holder of a Summer Fellowship is eligible for reappointment.

Qualified graduate students are invited to apply for these fellowships. Applicants must complete an application form and supply the following information: (1) a brief statement of educational objectives; (2) a brief statement of the thesis research problem, including objectives, work already accomplished, and work planned for the summer of 2001; (3) a transcript of undergraduate and graduate academic work; and (4) two letters of recommendation, one of which should be from the applicant's research advisor.

As it is the spirit of these awards that they be the sole sponsor of the summer graduate work, successful recipients of a fellowship must agree not to hold other appointments or other fellowships during the summer of 2001.

Application forms are available from the chairman of the Fellowship Award Subcommittee, to whom completed applications and letters of recommendation should be sent: R. McCarley, Department of Chemistry, Choppin Laboratories of Chemistry, Louisiana State University, Baton Rouge, LA 70803, tel: 225.388.3239, fax: 225.388.3458, e-mail: tunnel@unix1.sncc.lsu.

The deadline for receipt of completed applications is January 1, 2001. Award winners will be announced on April 1, 2001.

In addition, **SUBJECT TO APPROVAL**, there will be five additional summer fellowships in 2001, each consisting of \$3,000, supported by the U.S. Department of Energy.

The purpose of these fellowships is to assist students in continuing graduate work during the summer months in such fields as energy-related aspects of electrochemical science and engineering as well as solid-state science and engineering, and shall involve the areas of batteries, fuel cells, photoelectrochemistry, photovoltaics, and electrochemical processes of materials aimed at reducing energy consumption.

Qualifications, submission of information, and deadlines for these fellowships are the same as outlined above.