

## Prof. Dr. Shi-Gang Sun

Shi-Gang Sun obtained his Bachelor of Science from Xiamen University, China, in 1982. He went then to Université Pierre et Marie Curie (Paris VI), France, to continue his postgraduate studies. He obtained his “DEA” (Diploma d’Etudes Approfondies) under the supervision of Prof. Roger Parsons RSF, and Doctorat d’Etat (Docteur ès Sciences Physiques) under the direction of Prof. Jean Clavilier from the same university in 1986. After one year post-doctoral research in the Laboratoire d’Electrochimie Interfaciale du CNRS, France, he returned to China by the end of 1987, and served as associate professor and late full professor of Chemistry (1991) in Xiamen University till now. Shi-Gang Sun is the recipient of the state award for excellence in professorship and several scientific research awards including the award of top ten most important advancements in science and technology in China for the year 2007.

Shi-Gang Sun has published over 280 refereed papers, among which about 180 were appeared in international journals, including *Science*, *Angew.Chem.Int.Ed.*, *J.Phys.Chem*, *Langmuir*, *Chem.Commun.*, *Electrochim.Acta*, *J.Electroanal.chem.*, *Electrochem.Commun.*, etc. His research interests include Electrocatalysis, Electrochemical Surface Sciences, Spectroelectrochemistry, Nanomaterials and Chemical power sources. The main achievements of Shi-Gang Sun’s group at Xiamen University consist in: (1) Demonstrated firstly, at a molecule level, the dual path reaction mechanism of formic acid oxidation on Pt single crystal electrodes; (2) Developed in situ microscope and step-scan time-resolved FTIR reflection spectroscopy, and employed them to reveal the dynamic processes and kinetics of small organic fuel molecules; (3) Investigated systematically the intrinsic relationships of surface structure-catalytic functionality using metal single crystal planes as model electrocatalysts, and transferred successively the gained knowledge to synthesis of metal nanocrystal catalysts bounded by high-index facets with much improved activity and stability through developing electrochemically shape-controlled synthesis methods; (4) Discovered the anomalous infrared effects of nanomaterials, and developed relevant fundamental and applications; (5) Invented the 3-dimensional nanostructured Sn based alloy anode materials for lithium ion batteries, and improved significantly the cycleability performance. He is coauthor of the book entitled “In-Situ Spectroscopic Studies of Adsorption at the Electrode and Electrocatalysis” (Elsevier, 2007) and has contributed by invitation 8 chapters to 8 scientific books.

Shi-Gang Sun is active in both the International Society of Electrochemistry (ISE) and the Chinese Electrochemical Society (CES). Shi-Gang Sun has been elected as ISE fellow in 2007, and served for the ISE on the Fellows Nominating Committee, and also on the selection committee of *Electrochimica Acta* Travel Award for Young Electrochemists. He was vice-chair of the Physical Electrochemistry division of the ISE from 2005-2006, and has been involved in organizations of international scientific conferences including the secretary of the 46th ISE meeting (1995), co-organizer of the symposium of electrochemical surface science of the 49th ISE meeting (1998), member of scientific committee of the 53rd ISE meeting (2002), member of the local organizing committee of the 56th ISE meeting, member of advisory board of the international conference on electrified interfaces (ICEI) of year 2004 and 2007, and member of the organizing committee of the forthcoming 59<sup>th</sup> ISE meeting. As for the CES, Shi-Gang Sun has been elected last year as president-elect for a term of 4 years. Taking charge of this responsibility, he is making effort with his colleagues to the success of the 60th Annual ISE Meeting that will take place next year in Beijing, China.

Shi-Gang Sun has enjoyed, in past years, collaborations with researchers in France, UK, Germany, Russia, Japan, Canada and USA. He has spent a summer in 1998 in Hokkaido University, Japan, to make a fruitful collaboration with Prof. M. Osawa, and visited several times Guelph University, Canada, as sabbatical stays with Prof. Jacek Lipkowski. He is now editorial board member of *Physical Chemistry (Chinese)* and *Electrochemistry (Chinese)*, associate editor of *Spectral Analysis and Spectroscopy (Chinese)*, and editorial board member of the *Journal of Electroanalytical Chemistry and Functional Materials Letter*.