

## **Jun Liu**

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### **Professional Experience**

- 1998-present: Argonne National Laboratory, Chemist
  - Research and development of high-power lithium ion batteries for application in hybrid electric vehicles
  - Development of advanced materials for high-power battery application
  - Diagnostics of fresh and abuse batteries after cycle life or calendar life tests.
- 1993-1998: University of Kiel, Technical Faculty, Germany, Senior Researcher, Teaching Assistant
  - Development of new functional materials for application in chemical sensors and solid-oxide fuel cells
- 1993-1998, BMFT (German Ministry of Research and Technology) and Siemens AG “solid-oxide fuel cell” join project, researcher
  - Development and investigation of new oxygen ionic conductors, interface effects, and cathode materials for application in solid-oxide fuel cells at lower operating temperatures
- 1992-1999: Ionic Systems Company, Ltd., Stuttgart, Germany, Co-founder
  - Development of new oxygen sensors and production of new oxygen and other chemical gas sensors for laboratory use and industry monitoring and controlling processes
- 1989-1993: Max-Planck Institute of Solid State Research, Stuttgart, Germany
  - Researcher of German government BMFT sensor and electro-chromic project; development of advanced materials, chemical gas sensors and their applications
  - Postdoctoral Fellowship Appointee, Development and investigation of chemical gas sensors based on solid electrolytes.
- 1987-1989: Laboratory of Solid-State Chemistry, National Center for Scientific Research, University of Bordeaux, Bordeaux, France
  - Ph.D. Degree Student, Research and Teaching Assistant, investigation of silver ionic conducting glasses and their applications in chemical sensors, all solid-state batteries, and ion selected field effect transistor (ISFET)
- 1985-1987: Institute of Physics, Chinese Academy of Sciences, Beijing, China
  - Research Associate, development and investigation of fast ionic conductor materials, including solid solution and sol-gel prepared thin-film lithium ionic conductors and polymer materials for application in high-energy lithium batteries and lithium thermal batteries
- 1982-1984: Department of Chemistry, Peking University, Beijing, China

- Research and Teaching Assistant, Study of the electrochemical mechanisms and safety of high-energy lithium / thionyl chloride (Li/SOCl<sub>2</sub>) batteries

### **Professional Society Activities**

- Electrochemical Society
- Materials Research Society
- Association of Chinese Scientists and Engineers (U.S.)
- Great Lake Chinese American Chemical Society (GLCACS) (Member, Executive Committee, 1 year)

### **Education**

- PhD, Materials Science, University of Bordeaux, Bordeaux, France
- MS, Chemistry, Peking University, Beijing, China
- BS, Chemistry, Peking University, Beijing, China

### **Awards**

- Institute of Physics, Chinese Academy of Sciences, Outstanding Researcher Award 1986
- French National Center for Scientific Research Fellowship
- Max-Planck-Society Postdoctoral Fellowship

### **Patents**

- 2 patents

### **Publications**

- 36 peer-reviewed publications
- 21 extended abstract publications
- 34 technical presentations
- 10 research project/program reports