

Jun Liu

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Professional Experience

- 1998–present: Argonne National Laboratory, Argonne, IL (Chemist)
 - Research and development of high-power lithium ion batteries for application in hybrid electric vehicles
 - Development of advanced materials for high-power battery applications
 - Diagnostics of fresh and abused batteries after cycle life or calendar life tests
- 1993-1998: University of Kiel, Germany (Technical Faculty, Senior Researcher, Teaching Assistant)
 - Development of new functional materials for applications in chemical sensors and solid-oxide fuel cells
- 1993–1998: BMFT (German Ministry of Research and Technology) and Siemens AG "solid-oxide fuel cell" joint project (Researcher)
 - Investigation and development 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 control 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: Investigation and development 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 (PhD 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 transistors (ISFETs)
- 1985-1987: Institute of Physics, Chinese Academy of Sciences, Beijing, China (Research Associate)
 - Investigation and development 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 Testing Assistant)
 - Study of the electrochemical mechanisms and safety of high-energy lithium/thionyl chloride (Li/SOCl₂) batteries

Professional Society Activities

- Electrochemical Society
- Materials Research Society
- Association of Chinese Scientists and Engineers (U.S.)
- Great Lakes 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 and Publications

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