



CONSTANTIN IONEL STEFAN

510-512-5484

ionel@amprius.com

EXPERIENCE

Chief Technology Officer

Aug 2015 - Present

Director of Battery Technology, Chief Scientific Officer

Nov 2012 – Aug 2015

Principal Scientist, Manager of Battery and Electrochemistry

Dec 2010 – Nov 2012

Senior Scientist

Nov 2009 – Dec 2010

Amprius, Inc.

Sunnyvale, CA

- Lead company's development of engineering prototypes, battery platform and electrochemistry for high energy density Li-ion pouch cells (1200Wh/l, 450Wh/kg) for consumer electronics, electric vehicle and unmanned drone applications.
- Principal Investigator on grants under DOE's Vehicle Technologies Program, Army's Rapid Innovation Fund, NASA's Game Changing Technology and USABC electric vehicles program.
- Create and manage partner and customer relationships.

Electrochemist/Materials Scientist

May 2005 – Nov 2009

Nanosys, Inc.

Palo Alto, CA

- Proposed and tested a new type anode for Li-ion cells based on silicon nanowires.
- Responsible with the fabrication and testing of membrane electrodes assemblies (MEAs) for hydrogen and direct methanol fuel cells, as leader of a team of 4 people.

Postdoctoral Fellow

Sep 2002 – May 2005

Lawrence Berkeley National Laboratory

Berkeley, CA

- Started and developed a new project to produce a micropower generator based on single-chamber solid oxide fuel cell concept, and improved manufacturing and catalytic properties of component ceramic materials.
- Developed cathode supported ceramic structures for high rate, high purity generation of oxygen.
- Designed and built a solid-state fluorine electrolyzer for high-rate, high-purity fluorine separation (patented).

Research Assistant

September 1997 – August 2002

Case Western Reserve University

Cleveland, OH

- Studied Li⁺ intercalation process into a single λ -MnO₂ microparticle by analysis of surface enhanced Raman spectra as a function of potential, for advanced Li-ion battery electrodes.
- Modeled and analyzed by computational methods surface processes at neural stimulating electrodes and their operation for safe electrical stimulation.
- Formulated new mathematical theory and used it to model experimental results in modulated UV-vis spectroelectrochemistry techniques for surface reactions.
- Collaborated in projects involving ultrafast spectroelectrochemistry using pulsed lasers, second-harmonic generation at single crystal electrode surfaces, and X-ray spectroscopy of cathode materials for lithium batteries.

EDUCATION

- Ph.D. Chemistry, Case Western Reserve University, Cleveland, OH, January 2003
- M.S. Analytical Chemistry, Babes-Bolyai University, Romania, June 1997
- B.S. Chemistry, Babes-Bolyai University, Romania, June 1995

PROFESSIONAL AFFILIATIONS

- Member of the Electrochemical Society, since 1999
- Member of the Solid State Ionic Society, since 2003