

## **Professional Bios – Kathy Ayers and Monjid Hamdan**

### ***Kathy Ayers, Director of Research, Proton Energy Systems***

Kathy Ayers is the Director of Research at Proton Energy Systems. She is responsible for developing the long term research direction for improvements in performance, reliability, and cost of Proton's electrolyzer cell stack as well as overseeing Proton's military and aerospace programs. She has served as Principal Investigator on multiple contract research projects from the U.S. Department of Energy, Office of Naval Research, and National Science Foundation, and was recently awarded an ARPA-E grant to develop a novel, low cost regenerative fuel cell system. She was also a finalist for the Connecticut Women in Innovation Award in 2010.

Prior to joining Proton Energy Systems, Dr. Ayers served as a Staff Electrochemist and project team leader at Energizer Battery Company. While at Energizer, she conducted research in a variety of battery materials as well as developing techniques for diagnosis of polarization losses and leading material supplier strategies. She has over 15 years of experience in characterization of electrochemically active materials for energy storage devices. Dr. Ayers earned her Ph.D. in electrochemistry from the California Institute of Technology from Professor Nathan Lewis and is the author of several peer-reviewed journal publications and two U.S. patents.

### ***Monjid Hamdan, Senior Program Manager, Giner, Inc.***

Monjid Hamdan is a Senior Program Manager at Giner, Inc. Mr. Hamdan's expertise is in the design and fabrication of electrochemical systems that include PEM-based electrolyzers and fuel cells ranging in power from 5 to 75 kW, and pressures from ambient to 3,000 psi. Over the years, his responsibilities have included managing a multi-year U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy research project focusing on PEM electrolyzers incorporating an advanced low-cost membrane. He has also been a part of a U.S. Army Communications-Electronics Research, Development, and Engineering Center program for the development of a durable and portable direct methanol fuel cell and a U.S. Department of Defense Small Business Innovation Research Award Phase II program for the development of an advanced regenerative fuel cell system for high altitude airships. He has more than 20 years of experience in the field of PEM based fuel cells and electrolyzers and holds several US patents in the related field.