

Internship 1: Cell Performance Evaluation

Acumentrics is a leading solid oxide fuel cell (SOFC) company located in westwood, MA. SOFC is regarded as one of the most promising energy generation technologies due to its highest energy conversion efficiency, zero emission and zero noise. In SOFCs, oxygen ions diffuse through thin film ceramic electrolyte and combine with hydrogen, producing water and electricity. Other fuels such as natural gas, diesel, biogas, and ethanol can also be used in SOFCs.

This project will involve evaluating cell performance, manipulating data and reporting results.

Duties:

- Perform and apply fundamental chemical and electrochemical calculations to assist fuel cell performance evaluation
- Conduct simple experiments to verify hypothesis and improve testing efficiency
- Assist with developing new fuel cell testing techniques to more accurately evaluate performance of cell components
- Construct test article and evaluate cell performance
- Report testing and experimental results
- Work on special projects as requested by Management

Desired (although not required) experience:

- Mechanical, chemical or materials engineering background
- Hands-on oriented
- Minimal supervision
- Communication (verbal and writing) skills
- Computer skills (MS Office and database)
- Capable of lifting 35 lbs weight (required)

This position will report to a Sr. Engineer in Cell Engineering

*This position requires working with us for at least 6 months

For more information, see www.acumentrics.com or contact

Ying Liu

Acumentrics Corporation

yliu@acumentrics.com

781 461 8251 x365

Internship 2: Microanalysis and performance improvement

Acumentrics is a leading solid oxide fuel cell (SOFC) company located in westwood, MA. SOFC is regarded as one of the most promising energy generation technologies due to its highest energy conversion efficiency, zero emission and zero noise. In SOFCs, oxygen ions diffuse through thin film ceramic electrolyte and combine with hydrogen, producing water and electricity. Other fuels such as natural gas, diesel, biogas, and ethanol can also be used in SOFCs.

This is a hands-on project, working with a senior engineer, to perform microstructure analysis, compositional analysis and other physical and mechanical characterization. Quantitatively correlate microstructure to fuel cell performance. Find out root causes for abnormal performance and direction for cell performance improvement.

Duties:

- Post-test analysis, including sample preparation, microscopy, surface analysis, mechanical tests
- Construction of fuel cell to achieve performance targets
- Applying fundamental materials theories and calculations to improve fuel cell performance
- Reporting of results
- Work on special projects as requested by Management

Desired (although not required) experience:

- Materials science and engineering background
- Ceramic processing experience
- Microscopy sample preparation including mounting, polishing and coating
- Hands-on oriented
- Minimal supervision
- Communication (verbal and writing) skills
- Computer skills (MS Office)

This position will report to a Sr. Engineer in Cell Engineering

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