

## Our Staff



Dr. Robert Savinell

Distinguished University Professor  
George S. Dively Professor of Engineering

Dr. Jesse Wainright

Associate Research Professor  
Chemical Engineering

An ever growing group of research staff, post  
doctoral researchers, graduate and  
undergraduate students



## Contact Us

Dr. Robert Savinell

robert.savinell@case.edu

(216) 368-2728

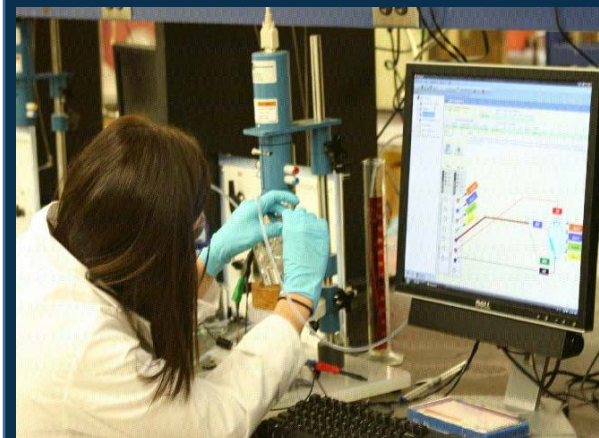
Dr. Jesse Wainright

jesse.wainright@case.edu

(216) 368-5382



# *Electrochemical Engineering and Energy Lab*



Department of Chemical Engineering  
Case Western Reserve University  
Great Lakes Energy Institute



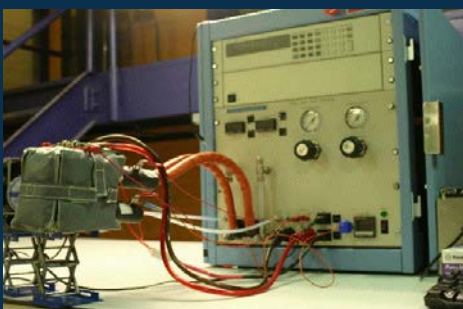
## Our Facilities



100 F Capacitor Prototyping Center  
(Supported by Ohio Third Frontier)



Single Cell and Small Stack Flow Battery  
Research



Single Cell and Small Stack Fuel Cell Research

## Research Interests

Electrochemical Engineering

Electrode Processes

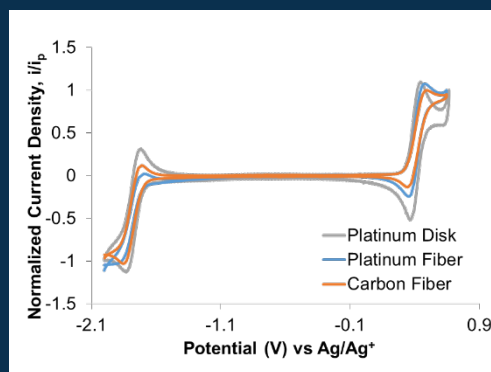
Electrocatalysis

Energy Conversion

Energy Storage

Energy Efficiency

Device Design



Consulting

Experts in the field of electrochemistry and electrochemical energy storage

Coordination - University wide Resources

Great Lakes Energy Institute Energy Solutions

Yeager Center Electrochemical Research

Swagelok Center for Materials Surface Analysis

Education

Degreed Programs and Research for Bachelor, Masters and Doctorate degrees

## Recent Projects

ARPA-E

High Energy Storage Capacity, Low Cost Iron Flow Battery

Developing a flowable electrode to decouple power and energy in the all iron battery

Department of Energy  
Iron Based Flow Batteries

Developing new flow battery chemistries and investigating fundamental aspects of flow battery materials

National Science Foundation  
Sustainable Energy Pathways Program

Development of a non-aqueous redox flow battery for grid storage applications

Department of Energy  
Faraday Technologies STTR Phase 2

Advance new designs to combine flow battery components to lower cost

National Institute of Health  
Electrodes for Nerve Conduction Block

Developing electrodes based on super capacitor concepts for the safe delivery of AC or DC currents for nerve block

