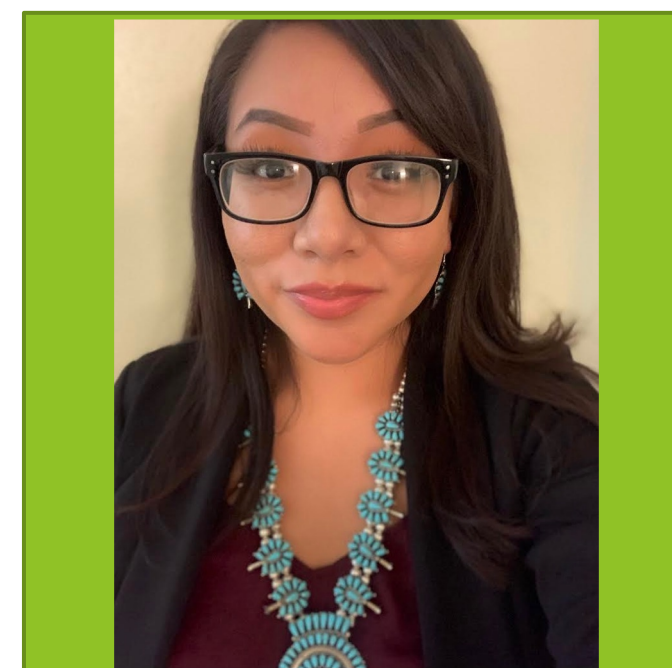
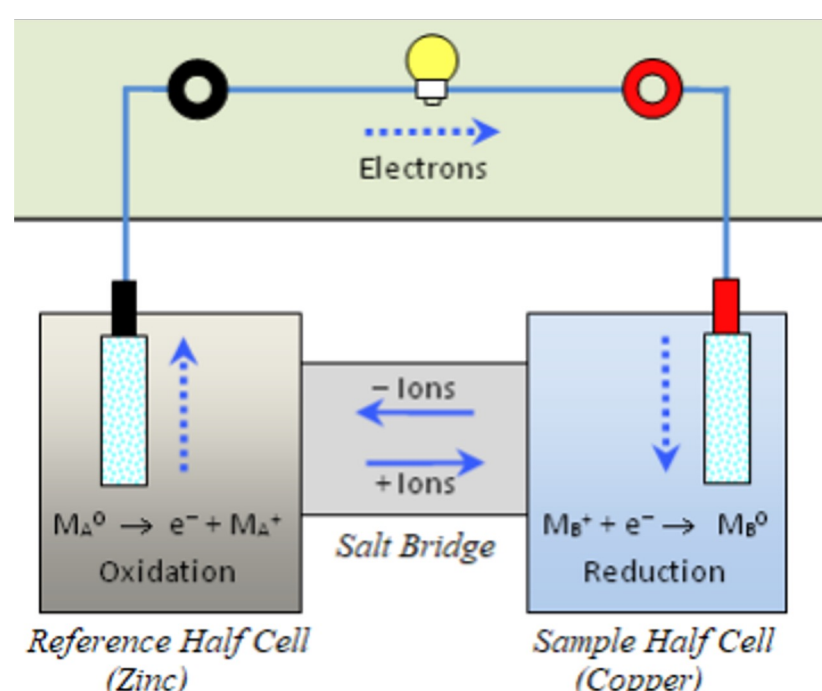


Overview

Electrochemistry is the relationship between electrical energy (electric current) and chemical reactions. It is based on Redox reactions.



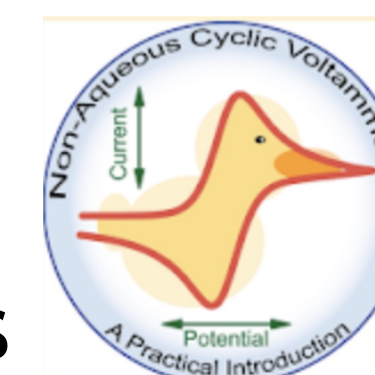
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Future Hands-on Work

- Apply fundamentals to:
 - Corrosion
 - Fuel Cells
 - Electrochemical Sensors
 - Cyclic Voltammetry



Our Goal

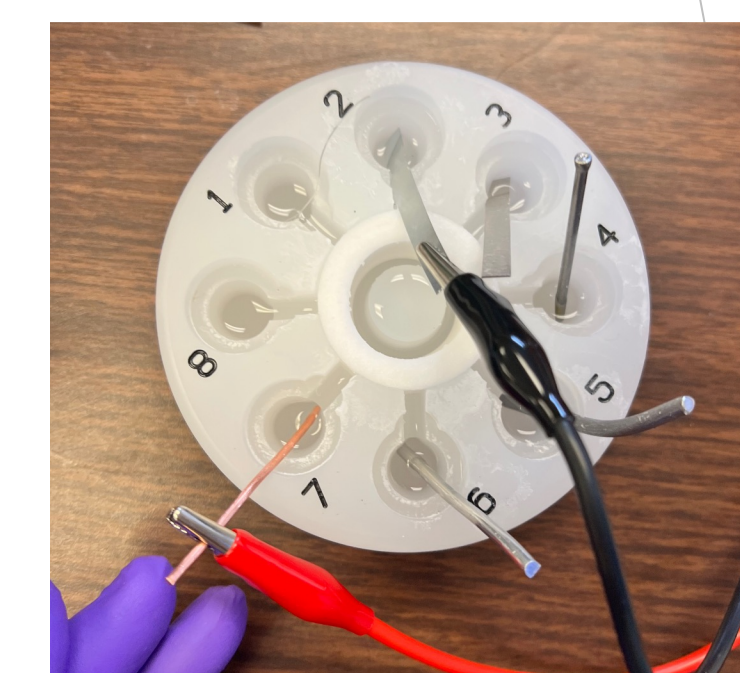
To be able to apply our enhanced understanding of electrochemistry to more practical real-world energy-related type of research

Set-up

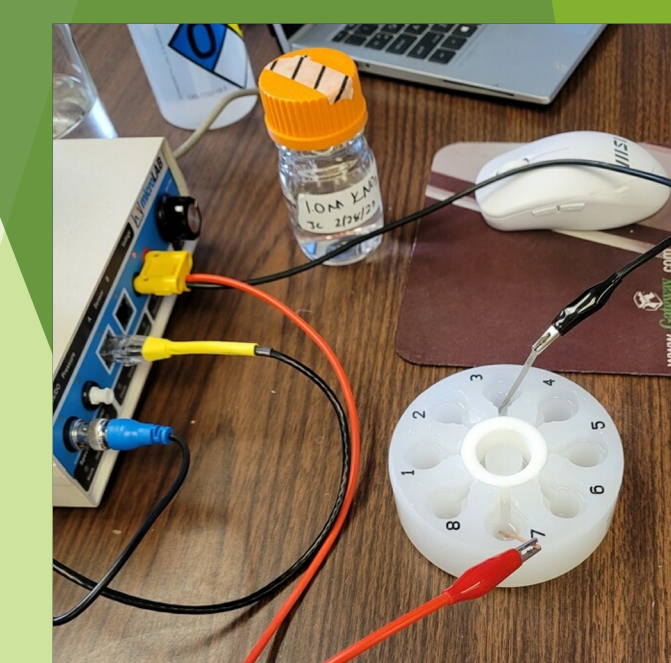
Metals

- Silver
- Nickel
- Zinc
- Iron
- Magnesium
- Aluminum
- Copper

- 100 mL KNO₃ (Salt Bridge)
- Black Lead- Reference
- Red Lead- Sample



Metal-Lead Connection



MicroLab FS 528, Electrochemical Half-Cell

Accomplishments

- Gained valuable knowledge of the fundamental governing principles of electrochemistry
 - Chemical equations and redox reactions
- Performed Electrochemical measurements with the MicroLab FS-528

Reference Metal:	Sample Metal:	Potential (Volts)
Zinc	Copper	0.069
	Silver	0.013
	Aluminum	-0.089
	Iron	-0.175
	Magnesium	-0.254
	Nickel	-0.312

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- **Research Advisor:** Dr. Olanrewaju Johnson

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