

## Electrochemical Impedance Spectroscopy (EIS) Seminar Part 1: EIS Theory

Date: September 16, 2020

Time: 12:30-2:00 PM Eastern Time (US and Canada)

Location: Virtually via Zoom

Link: <https://uml.zoom.us/j/92438769389?pwd=bnVEVWZMU0R2SUFWR2oyZ05CTzdiUT09>

Meeting ID: 924 3876 9389

Passcode: 473559

You are invited to join a **free** seminar series hosted by Dr. Neil Spinner of Pine Research and the Department of Chemistry at UMass Lowell covering Electrochemical Impedance Spectroscopy (EIS). The seminars will take place on three consecutive weeks (September 16, 23, and 30). This first session will cover the theory and basics of EIS, including data validity, instrument measurements, and techniques like Kramers-Kronig. Subsequent sessions will cover applications, equivalent circuit modeling and fitting, and real experiments including practice, tips, and tricks for circuit fitting using Pine Research's AfterMath software. See below for tentative list of topics covered:

### EIS Theory

- Introduction
- Why EIS?
- EIS Theory Basics
- Nyquist / Bode Plots
- Instrument Accuracy
- Data Validity
- Kramers-Kronig

