

Another Big Stride !!!

Z# 106

Multichannel Impedance Monitor



Fuel Cell Stack Evaluation
..... Through EIS Testing & Modeling

Electrochemical Mechanism Definition
..... Of Cathode/Membrane/Anode

Getting Useful Tips
..... For Membrane Selection

The use of **Electrochemical Impedance Spectroscopy(EIS)** is regarded as an invaluable technique for the characterization of batteries and fuel cells, which can provide information on state of charge, reaction mechanisms, and corrosion processes.

Multichannel Impedance Monitor, Z#106, is designed to help you to measure the impedance of fuel cell operating at high current levels.

- **Specially Designed For AC Impedance Experiment**
- **Versatile Frequency Generator / Analyzer**
- **Frequency Range : 1uHz to 100kHz**
- **LabVIEW Software Development Kit(SDK)**
- **Data Presentation And Modeling in ZMAN™**
- **1 Output For Current Excitation**
- **6 Inputs : 1 For Current & 5 For Voltage Response**
- **Channel Expansion Available**
- **High Speed USB Interface**

WonATech Co., Ltd.

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www.wonatech.com • www.xenosystem.com (Products)
www.electrochemistry.co.kr (E'chem Online Market)

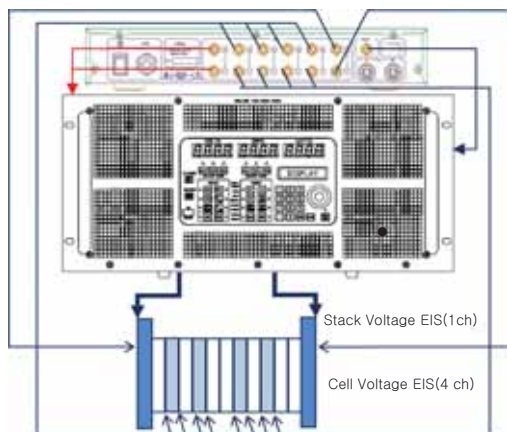


Designing the Solutions for Electrochemistry

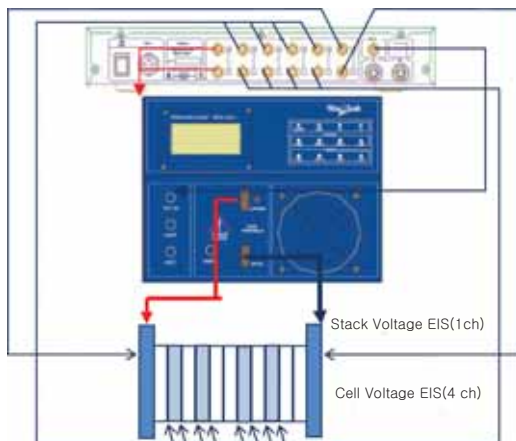
Multichannel Impedance Monitor, Z#106

System Configuration

By employing electronic load, Z# can be used to determine the anodic/cathodic process mechanisms by measuring impedance spectra with the measurements of I and E at given frequency range. Consequently, it enables you to get useful information for membrane selection.



Z#106 with Dynaload electronic load



Z#106 with WonATech WEL series load

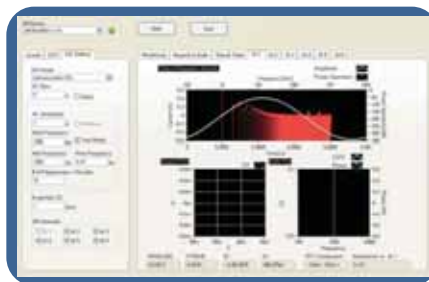


Software - ZMAN 2.0

Highly integrated software provides the most comprehensive range of control, measurement and analysis for electrochemical impedance spectra.

All functions such as ranging, auto-calibration, and measurements are software controlled.

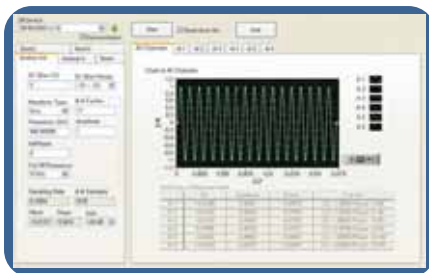
- **Mode : Galvanostatic EIS**
Potentiostatic EIS (1 channel only)
- **Dual Real Time Graph(Bode, Nyquist, etc.) During Measurement**
- **Power Spectrum Display**
- **Waveform Generator Function**
- **Easy Modelling And Searching Models**



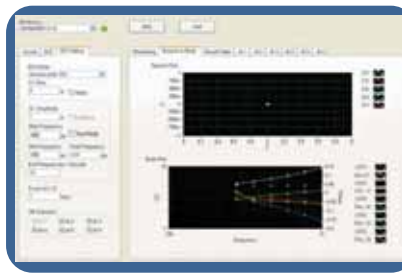
Channel Monitor



Waveform Generator



Channel Running Information



Nyquist & Bode plot for 5 channels(real time)

Following products are also available from WonATech;

- Potentiostat/Galvanostat
- Battery Cycler
- Fuel Cell Test Station
- EChem Software
- Electronic Load
- Fuel Cell Fixture, Cell, Jlg, etc.

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