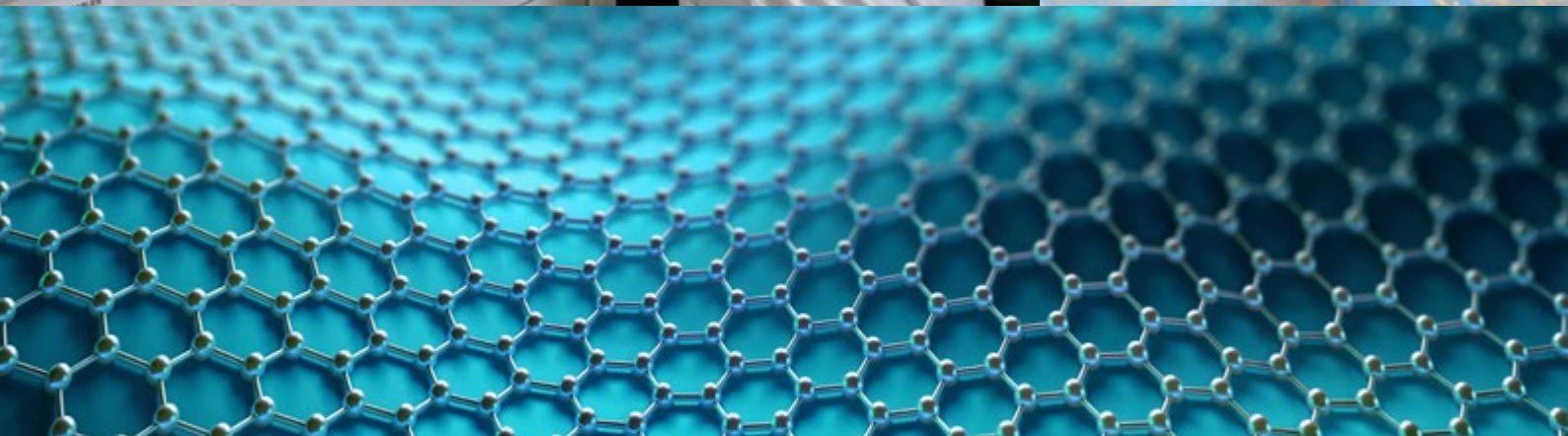
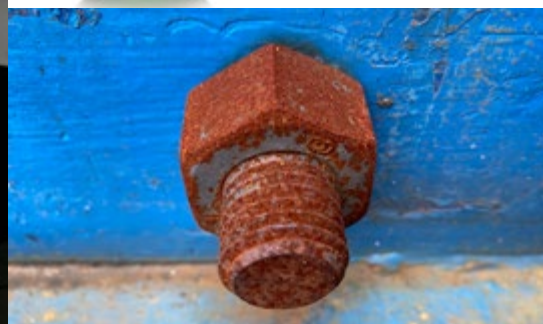
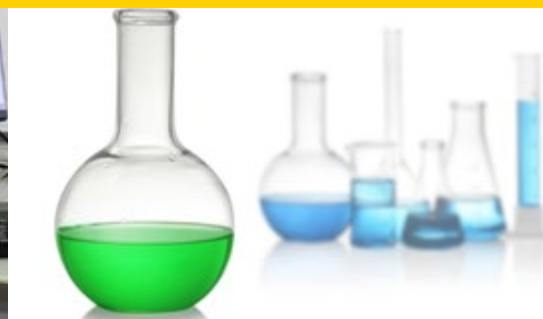




Powerful, high-performance measurement solutions

# Essential Multichannel Potentiostats.



Essential measurement tools for electrochemists.

VMP-3e  
The benchmark multichannel electrochemical workstation



Voltage: ±10 V  
Adjustable between -20V to +20V  
Current: ± 1 A down to 20nA  
EIS: Up to 1 MHz

- Research-grade instrument with 16 channel capability
- Easily upgraded in-situ, with low-current, impedance and high-current modules
- Connect each potentiostat to an external high current booster channel – perfect for battery research/testing
- Ethernet capability via LAN – connect several computers/users to the same unit to facilitate group working
- Easily integrated into 19" racks
- Option to validate EIS data with Quality Indicators

Add-ons: instruments that grow with your needs.

Options	Specification	Application
Low current option	LC option	Provides pA accuracy, for analytical electrochemistry, corrosion and also small battery cells
High Power booster	20 V boosters: -2A, 5, 10, 20A +/-3V at +/-80A 5V at +/-100A 60V at 50A* 12V at 200 A* * Up to four boosters can be connected together to increase current capability	Battery, supercapacitor, fuel cell, electroplating & electrolysis, Supercapacitor or fuel cell characterization Battery testing Battery pack characterization Large battery cells supercapacitors, or fuel cell characterization
EIS	EIS option	Validation of EIS measurements possible with VMP-3e/VSP-3e (Quality Indicators)
Additional modules	SAM-50 Nstat Box	Follow individual element voltage in battery packs/fuel cell stacks

Powerful, proprietary functionality unique with EC-Lab®...

Modify-on-the-fly

This unique functionality gives freedom and control; enabling users to build experiments without having to anticipate and plan experiments from scratch. This leads to:

- Easier management of long-term experiments
- Increased creativity
- Easier set-ups

Display & Embedded Analysis

- Global view
- Multigraph
- Improved visibility of data for easier monitoring
- EIS data modeling (Z Fit)
- CV data modeling (CV Fit)
- Range of fitting tools
- Data export

VSP: A versatile, 5-channel, research-grade, instrument

Voltage: ±10 V  
Adjustable between -20V to +20V  
Current: ± 0.4 A down to 20nA  
EIS: Up to 1 MHz

- Versatile, modular instrument for general needs
- Future proof: instrument easily upgraded with EIS, low/high current options and new channels
- Option for external boosters from 2 A up to 800 A with each VSP channel. Extends use for specialist applications
- Option for 4 A booster



VSP-3e: Tailor-made for energy applications

Voltage: ±10 V  
Adjustable between -20V to +20V  
Current: ± 1 A down to 20nA  
EIS: Up to 1 MHz

- Up to eight channels for increased flexibility, +/- 1A (up to 800A with boosters), built-in EIS – perfect for energy environments
- Ethernet LAN for improved multiple user/PC connectivity
- Compact, upright design reduces instrument footprint – save valuable laboratory space
- Option to validate EIS data with Quality Indicators



...and the ability to get more out of your experiment

Energy-specific features

- <5µs switching time from Potentiostat to Galvanostat
- Manage 3 electrode cell/control between positive and negative
- C-rate calculation and use in next technique
- 60V with FlexP Safety limits
- High density of channel (upright design or 16 channel chassis)

Advantages

- Higher-quality measurements
- Online processed data
- Easier management of long-term experiments
- Easier set-ups

Ethernet capable/Buffer

- Facilitate group-working. Share instruments and experiments on your local area network (LAN)
- Built-in buffer protects precious experimental data against PC crashes or electrical blackouts
- Easier management of long-term experiments
- Safer/more reliable data transfer

# Overview.

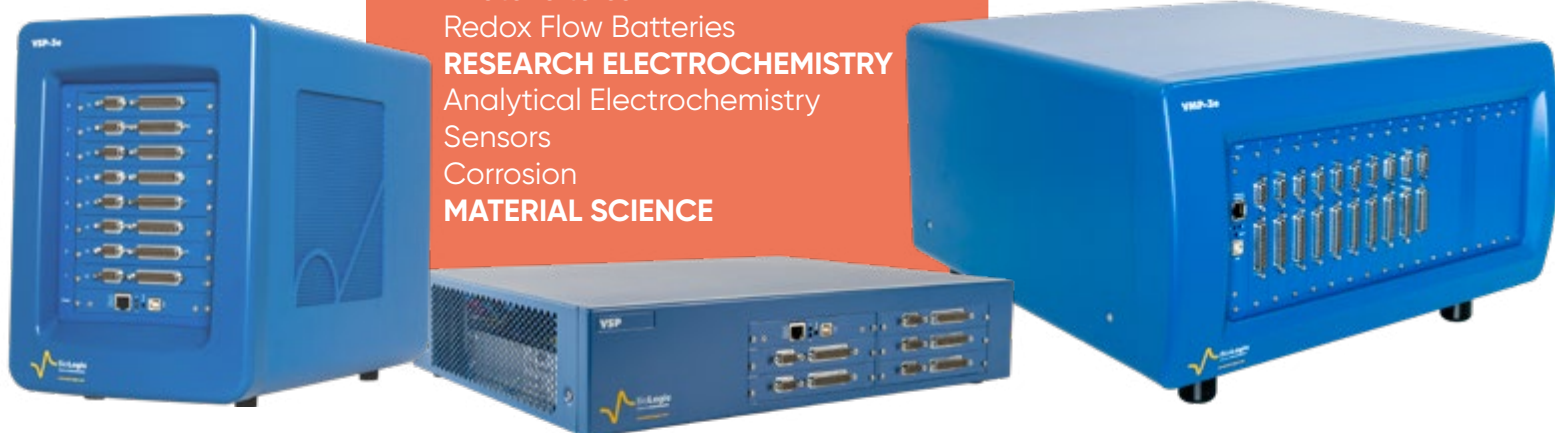
## ENERGY STORAGE & CONVERSION

Batteries  
Fuel cells & electrolyzers  
Supercapacitors  
Photovoltaics  
Redox Flow Batteries

## RESEARCH ELECTROCHEMISTRY

Analytical Electrochemistry  
Sensors  
Corrosion

## MATERIAL SCIENCE



BioLogic Essentials are workhorse potentiostat/galvanostats, designed for researchers who need robust, high-quality, electrochemical measurement equipment.

No compromise on quality has been made on instruments whose high-performance and high-precision hardware is matched by a powerful, easy to use, and ever-evolving benchmark interface, EC-Lab. Built around a modular design the multichannel VSP, VSP3-e and VMP-3e will grow with your research needs and help take your research to the next level.

	VSP		VSP-3e		VMP-3e	
Max channel	5		8		16	
	With standard set-up	With E-type channel board	With standard set-up	With E-type channel board	With standard set-up	With E-type channel board
Max current	± 400 mA	± 400 mA	± 400 mA	± 1 A	± 400 mA	± 1 A
EIS QI*	no	yes	no	yes	no	yes
Harmonics	no	yes	no	yes	no	yes
Voltage	±10 V (customisable to match [0;20 V])		±10 V (customisable to match [0;20 V])		±10 V (customisable to match [0;20 V])	
Impedance	Up to 1 MHz		Up to 1 MHz		Up to 1 MHz	

For full specifications please see the **Essential Multichannel Data Sheet** available at [www.biologic.net](http://www.biologic.net)

\*used to validate the quality of EIS measurements (linearity, stationarity, noise)

**Need high-level EIS measurements? Check out our Premium Range at [www.biologic.net](http://www.biologic.net)**

### Innovation is engrained in our commercial DNA.

The first multi-channel computer-controlled potentiostat (MacPile, 1991), Ethernet connectivity and Embedded EIS are just some of the BioLogic innovations helping scientists around the globe. Our high-quality, high-performance instruments have been designed to withstand the rigors of time and the laboratory and give scientists increased freedom, flexibility and creativity. [www.biologic.net/about us](http://www.biologic.net/about-us)

[www.biologic.net](http://www.biologic.net)

**Shaping the future.  
Together.**