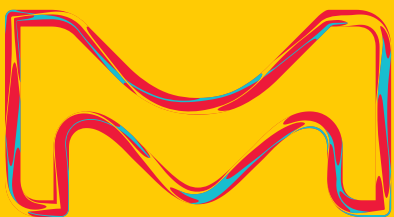


MERCK

Electrifying Synthesis



The Life Science
business of Merck
operates as
MilliporeSigma in
the U.S. and Canada.

Sigma-Aldrich®
Lab & Production Materials

Our new SynLectro™ Electrolysis Platform is designed to simplify and standardize electrochemical organic synthesis at research and batch scale.

Synthetic chemistry is about imagining and realizing new potential, engineering better compounds one bond at a time. Electrochemistry for organic synthesis is a technique that has gained popularity due to its ability to design complex small molecules that have previously been impossible to make or find more efficient ways to make known compounds. By using electrical energy to drive chemical change, a targeted section of the molecule can be transformed while leaving the rest of the structure untouched. In addition, the use of electricity

replaces toxic and costly chemicals allowing the synthesis to be completed more efficiently, cleaner, and cheaper.

Our new SynLectro™ Electrolysis Platform is designed to simplify and standardize electrochemical organic synthesis at research and batch scale. With our convenient portfolio, there is no need to design or construct your setup anymore. Just choose your kit or pick your components a'la carte, connect it to an off-the-shelf power supply and you are ready to explore new electrochemical reactions.



The Complete SynLectro™ Electrolysis Platform

Glass cells, a PTFE stopper and sleeve, electrode holders, and electrodes provide the perfect way to experiment using electrochemistry for organic synthesis.



Electrochemistry Starter Kits

The starter kits are the perfect way to test the full potential of electrochemistry with your research goals. These 50mL or 200mL cell size kits allow you to easily reproduce your work and scale it.

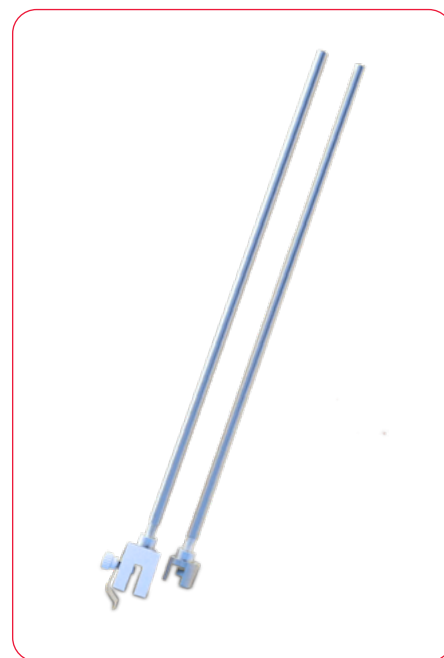
- Easy-to-use set-up
- Compatible with commercial power supplies
- No need to self-design equipment



Glass Cells and Stoppers

To design your own reaction setup we offer four different cell configurations, a 50 mL cell, a 50 mL jacketed cell, a 200 mL cell, and a 200 mL jacketed cell. The PTFE stopper and PTFE sleeve separates electrical contacts from electrolyte and work exclusively with our glass cells.

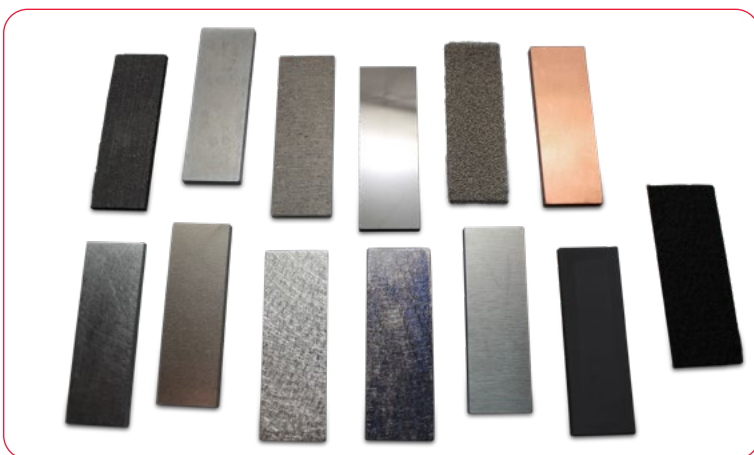
- Designed to simplify setup
- Jacketed option supports thermal control
- Unique stopper design ensures safety



Electrode Holders

Our two electrode holder options are designed to fit snugly through our PTFE stopper. Both the stainless-steel electrode holder and the PTFE electrode holder connect to the electricity source of your selection.

- A PTFE electrode holder for soft electrodes
- Holds electrode in place to create homogenous electric field
- Compatible with commercial power supplies.



Electrodes

To help drive the high yields and selectivity in your reactions we offer 14 different electrode material options. Each electrode is tailor designed to fit within the cell allowing for optimal active surface.

- Electrode dimension - 3x20x60mm.
- 14 electrode material options to select from
- Designed for optimal active electrode surface

Learn more about the SynLectro™ Electrolysis Platform, visit [SigmaAldrich.com/SynLectro](https://www.sigmaaldrich.com/SynLectro)

Faraday Lab: Electrosynthesis Workstation

Faraday Lab Electrosynthesis Workstation an easy-to-use power controller designed for synthetic chemists by synthetic chemists to simplify electrochemistry for small molecule synthesis.



Features



All-in-one electrochemical synthesis product programmed for constant current, constant potential, and CV experiments



Real-time current and voltage monitoring through touch-screen interface



Universal compatibility through use of alligator clips



USB interface allows for data to be saved and exported



Power supply is wall plug power supply including universal plug set



Compact footprint fits nicely in any hood

Faraday Lab: Electrosynthesis Workstation

Available Experiments

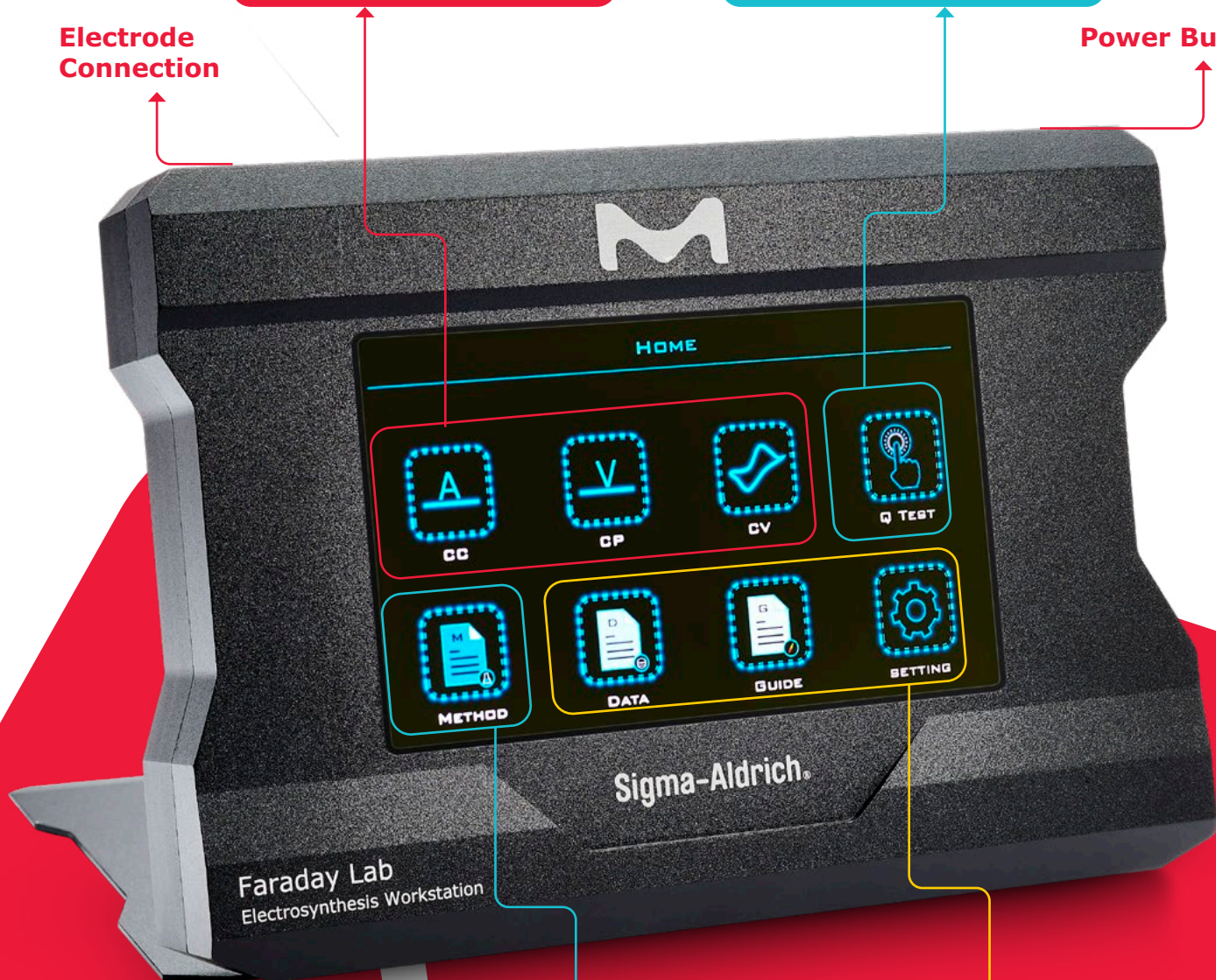
- Constant Current
- Constant Voltage
- Cyclic Voltammetry

Quick Test

- Run a quick test with either constant current or constant voltage

Electrode Connection

Power Button

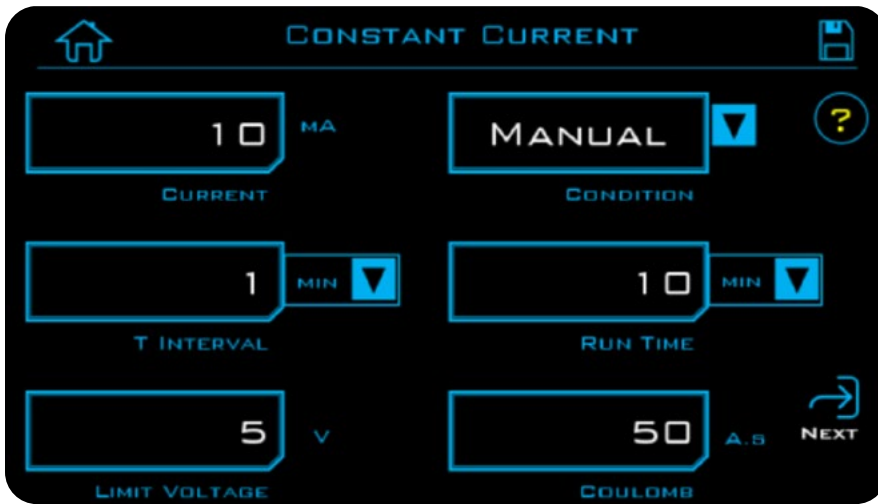


Data Management

- "Method" recalls saved experimental conditions
- "Data" accesses past experimental data

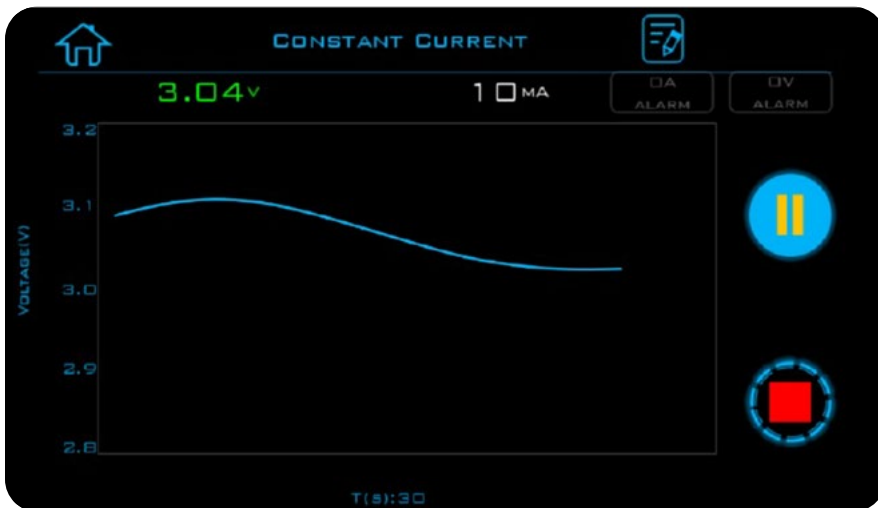
Settings and Guide

- View the user manual
- Adjust time and date settings



Set experiment parameters

Adjust current and voltage parameters and choose automatic or manual experiment completion.



Real-time monitoring

View real-time current and voltage readings with the ability to start, pause, and stop your experiment.

Technical Data

Output voltage	$\pm 10V$	Voltage measuring resolution	$\pm 100\mu V$
Output voltage resolution	$\pm 5mV$	Current measuring resolution	$\pm 1\mu A$
Output current	$\pm 100mA$	Dimensions (H x W x D)	180 x 130 x 40 mm
Output current resolution	$\pm 10\mu A$	Weight	1 kg

SynLectro™ Electrolysis Starter Kits

Cat. No.	Product Description	Kit Components
ESYNTH001	SynLectro™ 50 mL Starter Kit	<ul style="list-style-type: none">• 50 mL glass cell• a PTFE stopper and sleeve• two electrode holders• six electrodes (2 graphite, stainless steel, nickel, lead, and zinc)
ESYNTH002	SynLectro™ 200 mL Starter Kit	<ul style="list-style-type: none">• 200 mL glass cell• a PTFE stopper and sleeve• two electrode holders• six electrodes (2 graphite, stainless steel, nickel, lead, and zinc)

SynLectro™ Glass Cells and Stoppers

Cat. No.	Product Description
ESYNTH003	SynLectro™ 50 mL Glass Cell with PTFE stopper
ESYNTH004	SynLectro™ 50 mL Jacketed Glass Cell with PTFE stopper
ESYNTH005	SynLectro™ 200 mL Glass Cell with PTFE stopper
ESYNTH006	SynLectro™ 200 mL Jacketed Glass Cell with PTFE stopper

SynLectro™ Electrode Holders

Cat. No.	Product Description
ESYNTH007	SynLectro™ PTFE Electrode Holder
ESYNTH008	SynLectro™ Electrode Holder

Faraday Lab

Cat. No.	Product Description
ESYNTHLAB	Faraday Lab Electrosynthesis Workstation

SynLectro™ Electrodes

Cat. No.	Product Description
ESYNTH009	SynLectro™ Nickel Electrode
ESYNTH010	SynLectro™ Stainless Steel Electrode
ESYNTH011	SynLectro™ Copper Electrode
ESYNTH012	SynLectro™ Tin Electrode
ESYNTH013	SynLectro™ Lead Electrode
ESYNTH015	SynLectro™ Zinc Electrode
ESYNTH016	SynLectro™ Magnesium Electrode
ESYNTH017	SynLectro™ Aluminum Electrode
ESYNTH018	SynLectro™ Graphite Electrode
ESYNTH019	SynLectro™ Glassy Carbon Electrode
ESYNTH020	SynLectro™ Boron-doped Diamond Electrode
ESYNTH021	SynLectro™ Nickel Foam Electrode
ESYNTH022	SynLectro™ Graphite Felt Electrode

[SigmaAldrich.com/esynthlab](https://sigmaaldrich.com/esynthlab)

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