



**STAT-ECL** is a portable BiPotentiostat/Galvanostat combined with a specific Electrochemiluminescence (ECL) Cell that performs **ELECTROCHEMILUMINESCENCE** studies with **DropSens Screen-Printed Electrodes (SPEs)**. A **BiPotentiostat/Galvanostat** ( $\pm 4$  V DC potential range,  $\pm 40$  mA maximum measurable current) and a **Si-Photodiode** integrated in the ECL Cell (Spectral response range: 340 - 1100nm) are combined **for the first time in the market** for offering simple, compact and portable solution in the field of ELECTROCHEMILUMINESCENCE to be used with SPEs.

The BiPotentiostat/Galvanostat is the instrument in charge of starting the ECL reaction by applying voltage or current pulses. Electrochemical and Chemiluminescence responses are perfectly synchronized and shown in real time.

The equipment can also be used independently as a Bipotentiostat/Galvanostat (EC mode) with all the functionalities of the well-known **DropSens** instruments.

**STAT-ECL** is controlled by the **DROPVIEW 8400** software, providing powerful functions such as:

- Remote control of the amplification for ECL signals (with x1, x10 and x100 gain).
- Plot overlay, peak integration, smoothing, subtraction, derivative curve, baseline fitting, etc.
- Script editor for programming specific work routines.
- Real Time dual axis plot to show at same time the ECL signal and the electrochemical measurement.
- 3D plotting of curves.

Available techniques:

### **POTENTIOSTAT**

#### Voltammetry

<b>LSV</b>	Linear Sweep Voltammetry
<b>CV</b>	Cyclic Voltammetry
<b>SWV</b>	Square Wave Voltammetry
<b>DPV</b>	Differential Pulse Voltammetry
<b>NPV</b>	Normal Pulse Voltammetry
<b>NDPV</b>	Differential Normal Pulse Voltammetry
<b>ACV</b>	AC Voltammetry (only EC mode)
<b>LPR</b>	Linear Polarization Resistance (only EC mode)

#### Amperometry

<b>AD</b>	Amperometric Detection
<b>FA</b>	Fast Amperometry ( $t_{int} < 0.1$ s)
<b>PAD</b>	Pulsed Amperometric Detection
<b>ZRA</b>	Zero Resistance Amperometry
<b>MAD</b>	Multipulsed Amperometric Detection
<b>COUL</b>	Coulometric Detection

### **GALVANOSTAT**

<b>LSP</b>	Linear Sweep Potentiometry
<b>CP</b>	Cyclic Potentiometry
<b>PD</b>	Potentiometric Detection (galvanostatic)
<b>FP</b>	Fast Potentiometry ( $t_{int} < 0.1$ s)
<b>ZCP</b>	Zero Current Potentiometry
<b>PSAG</b>	Potentiometric Stripping Analysis (galvanostatic) (only EC mode)
<b>PSAF</b>	Potentiometric Stripping Analysis (faradaic) (only EC mode)
<b>MPD</b>	Multipulsed Potentiometric Detection

### General Specifications

• Power	Li-ion Battery (1250 mAh) or USB (DC charger adaptor compatible (5V)
• PC interface	Bluetooth / USB
• LED indicators	Power, Status, Measuring, Bluetooth
• Dimensions:	Potentiostat/ Galvanostat: 13.0 cm x 12.1 cm x 3.6 cm (L x W x H) ECL-CELL: 7.5 cm x 6.5 cm x 3.9 cm (L x W x H)
• Weight	Potentiostat/ Galvanostat: 480 g ECL-CELL: 175 g

### Potentiostat/Galvanostat

• Operating modes	BiPotentiostat, Potentiostat, Galvanostat
• DC-Potential range	±4 V
• Current ranges (potentiostat)	±1 nA to ±10 mA (8 ranges)
• Maximum measurable current	±40 mA
• Potential ranges (galvanostat)	±100 mV, ±1 V (2 ranges)
• Applied Potential Resolution	1 mV
• Measured Current Resolution	0.025 % of current range (1 pA on lowest current range)
• Applied Current Resolution	0.1 % of current output range
• Measured Potential Resolution	0.012 % of potential range
• Potential Accuracy	±0.2 %
• Current Accuracy	≤0.5 % of current range at 100 nA to 10 mA

### ECL Cell

• Detector	Silicon photodiode with preamp
• Spectral response range	340-1100 nm
• Peak sensitivity wavelength	960 nm
• Photo sensitivity at 960nm	0.62 V/nW (310 ecl units/nW)
• PGA Gain	x1 - x10 - x100
• Operating Temperature	-20 to +60 °C
• Storage Temperature	-20 to +60 °C
• Material	-ABS (no compatible with most of organic solvents)

*Specifications are subject to change without previous notice*

### Related products



110QD



220AT



550



QDCORE

Full Catalogue



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