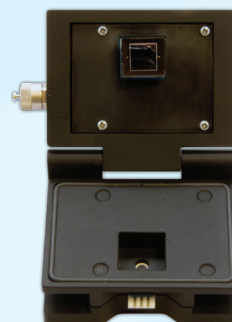


ElectroChemiLuminescence System

Ref. STAT-ECL



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** (± 4 V DC potential range, ± 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

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

Amperometry

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

GALVANOSTAT

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

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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 wavelenght	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

Specifications are subject to change without previous notice

Related products



110QD



220AT



550



QDCORE

Full Catalogue



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Contact Form

