

# Luminescence studies: $\mu$ Stat ECL

## Electrochemiluminescence instrument for Screen-Printed Electrodes



### Basics:

Metrohm DropSens offers a compact, versatile and wireless solution to perform Electrochemiluminescence studies, combining in one equipment a bipotentiostat/galvanostat and a photodiode integrated in an innovative cell for Screen-Printed Electrodes.

This miniaturized and portable alternative is perfect for performing Electrogenerated Chemiluminescence (ECL) measurements.

### Key features:

- Sensitivity towards very low level light signals.
- Obtaining of one luminescence total point per one electrochemical point.
- Electrochemical and Chemiluminescence responses are perfectly synchronized and shown in real time.
- Suitable for research with one marker specie.
- Can also be used independently as a Bipotentiostat/Galvanostat (EC mode).



### (Bi)Potentiostat / Galvanostat

Operating modes	BiPotentiostat, Potentiostat, Galvanostat
DC-Potential range	$\pm 4$ V
Current ranges (potentiostat)	$\pm 1$ nA to $\pm 10$ mA (8 ranges)
Maximum measurable current	$\pm 40$ mA
Potential ranges (galvanostat)	$\pm 100$ mV, $\pm 1$ V (2 ranges)

### Photodiode 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
Material	-ABS (not compatible with most of organic solvents)

### Software:

$\mu$ Stat ECL is controlled by 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.

