Screen-Printed Carbon Electrodes

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Disposable **carbon electrodes** (ref. 110). Ideal for working with microvolumes, for decentralized assays or to develop specific sensors. Useful for undergraduate lab to avoid tedious polishing of solid electrodes.

*Ceramic substrate:* L33 x W10 x H0.5 mm  
*Electric contacts:* Silver  
The electrochemical cell consists on:

*Working electrode:* Carbon (4 mm diameter)  
*Counter electrode:* Carbon  
*Reference electrode:* Silver

Screen printed carbon electrodes (ref. 110) are commercialised in a 75 units pack. They should be stored at room temperature in a dry place.
Also a specific **connector** (ref. DSC) that acts as an interface between the screen-printed electrode and your potentiostat is available at [DropSens](mailto:info@dropsens.com).

*Dimensions: L65 x W65 x H40 mm*

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**Electrochemical behaviour and electroanalytical performance of SPCEs (ref. 110) for some benchmark redox systems**

![Cyclic voltammogram of 5·10⁻³ M NADH in 0.05 M phosphate buffer solution pH 7.4](image)

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**DropSens** SPCEs (ref. 110) exhibit a high electrochemical activity. An example is observed for NADH oxidation, that is usually poorly defined at conventional carbon electrodes. **DropSens** electrodes facilitate low potential amperometric measurements of NADH.
Cyclic voltammograms of $5 \cdot 10^{-4} \text{M } K_3[\text{Fe(CN)}_6]$ in $0.1 \text{ M } H_2SO_4$ electrolyte solution at various scan rates.

Cyclic voltammogram of $5 \cdot 10^{-4} \text{M indigo carmine}$ in $0.1 \text{ M } H_2SO_4$ electrolyte solution at 100 mV/s.

Cyclic voltammograms of $1 \cdot 10^{-4} \text{M hexaamineruthenium (III)}$ in $0.1 \text{ M } KCl$ electrolyte solution at 50 mV/s. $n = 5$ (different SPCEs). RSD% = 4%.

Cyclic voltammograms of $1 \cdot 10^{-4} \text{M hexaamineruthenium (III)}$ in $0.1 \text{ M } KCl$ electrolyte solution at different scan rates. $\Delta E = 59 \text{ mV}$.