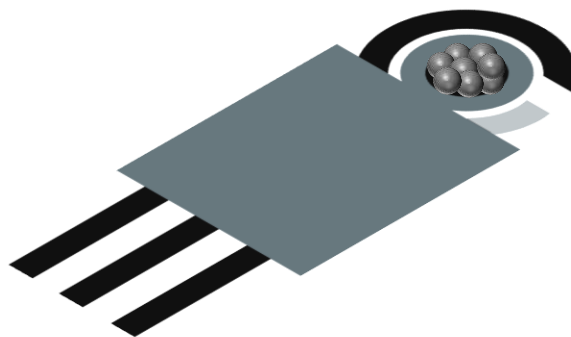




Sense4Med

Smart Sensors for Sustainable Life



Carbon black modified Graphite
Screen-printed electrodes

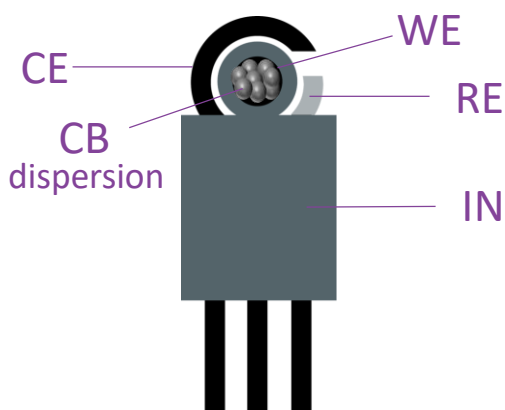
www.sense4med.com



These electrodes are fabricated by screen-printing technology on a flexible and high-resist polyester support.



Screen-printed features



- **Standard dimensions** 28 x 12 mm
- **Substrate** Polyester
- **Substrate dimension** 125 μ m
- **WE surface area** 7 mm²
- **Sample volumes** 20-200 μ L
- **Electrode materials**

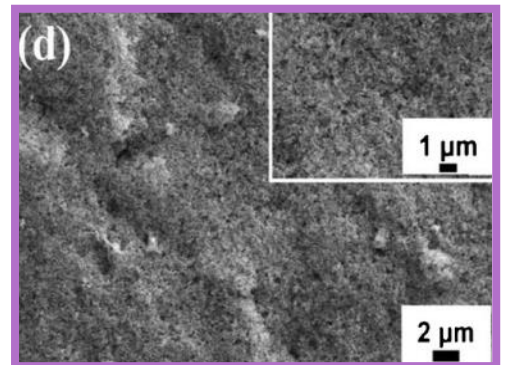
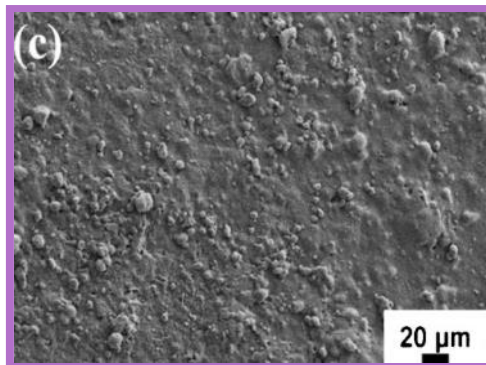
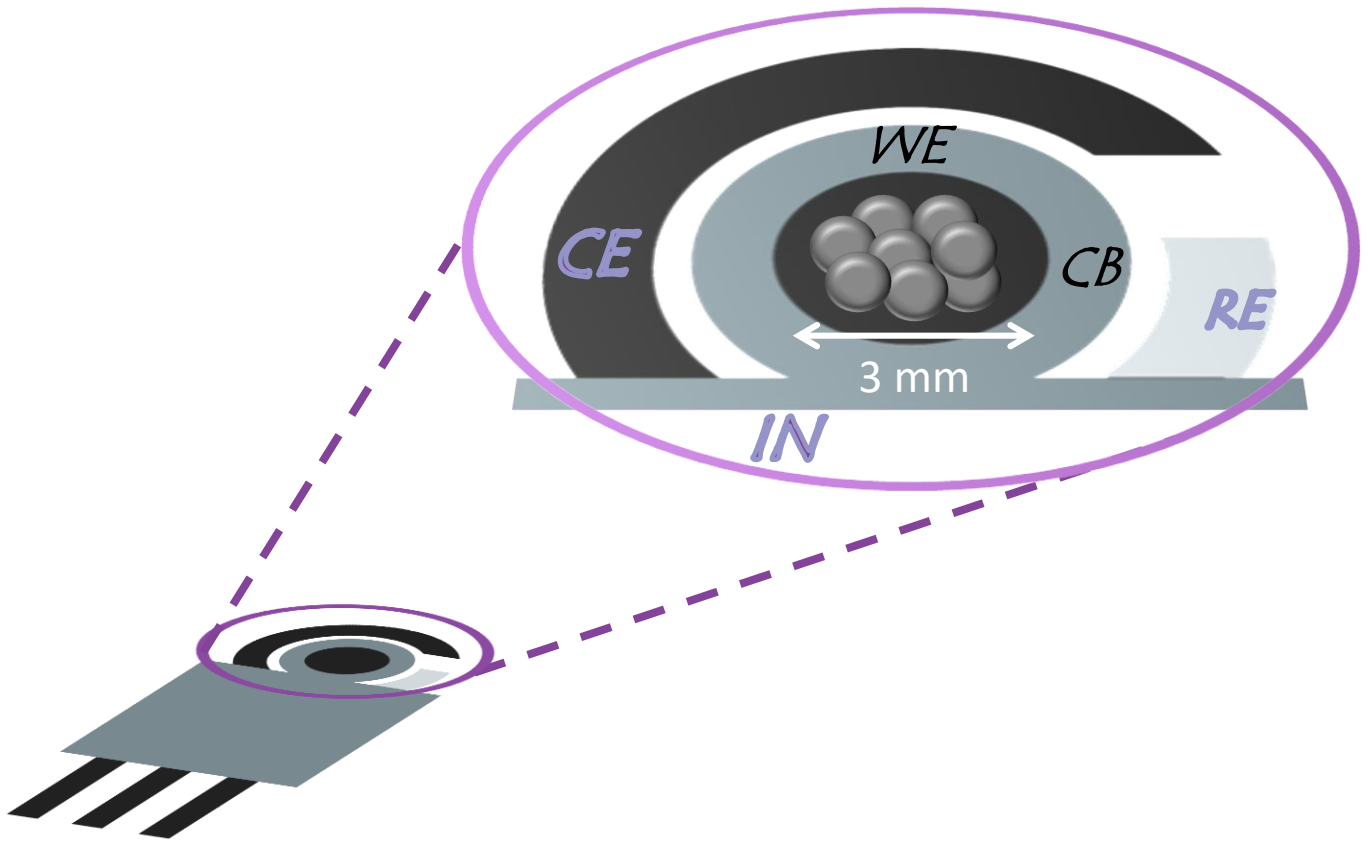
<i>Working electrode (WE)</i>	Graphite
<i>Reference electrode (RE)</i>	Silver
<i>Counter electrode (CE)</i>	Graphite
<i>Insulating (IN)</i>	Dielectric paste
- **WE modifier** Carbon black (CB) dispersion

- **Applications**
- [Biomedical](#)
 - [Materials](#)
 - [Environmental](#)
 - [Defence](#)

Printed electrodes are a suitable tool for multiple applications, providing many advantages such as miniaturization, low-cost, disposable, low reagent consumption.



Electrochemical cell

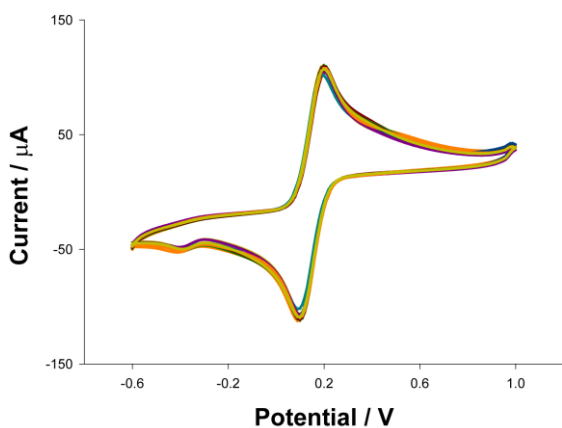


SEM Images

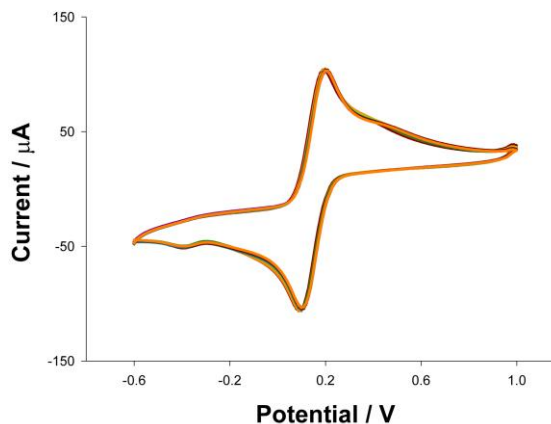
CB modified graphite screen-printed electrode



Performances



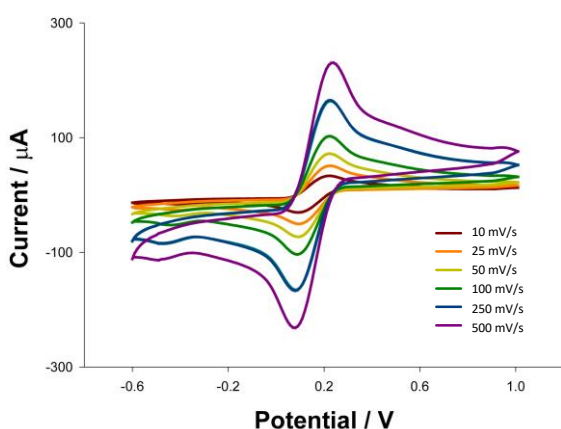
Cyclic voltammograms for 5 mM $K_4Fe(CN)_6$ in 100 mM KCl using the same CB modified graphite screen-printed electrode. Scan rate= 100 mV/s, n=10, **RSD% = 2%**.



Cyclic voltammograms for 5 mM $K_4Fe(CN)_6$ in 100 mM KCl using different CB modified graphite screen-printed electrodes. Scan rate= 100 mV/s, n=10, **RSD% = 4%**.

➤ Intra-electrode Repeatability

➤ Inter-electrode Repeatability



Cyclic voltammograms for 5 mM $K_4Fe(CN)_6$ in 100 mM KCl with different scan rates using a CB modified graphite screen-printed electrode.

➤ Scan Rate



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