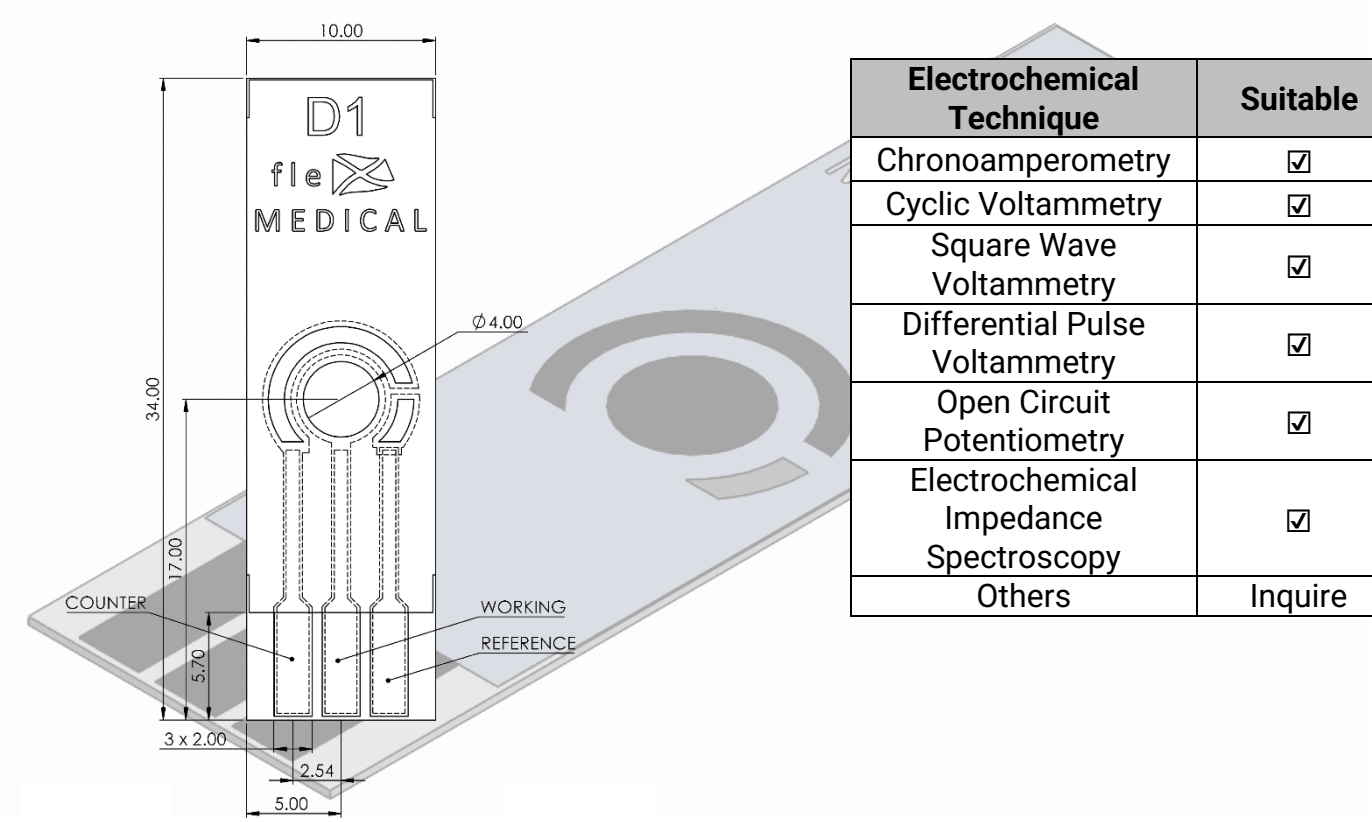
Screen-Printed Carbon Electrodes

FMS-0008



Electrochemical Technique	Suitable
Chronoamperometry	☑
Cyclic Voltammetry	☑
Square Wave Voltammetry	☑
Differential Pulse Voltammetry	☑
Open Circuit Potentiometry	☑
Electrochemical Impedance Spectroscopy	☑
Others	Inquire

Sample Performance Data

Performance data

The following data describes typical expected performance from the sensors within a batch. Please contact the manufacturer for batch-to-batch performance information.

Method of analysis.

Analysis was performed by cyclic voltammetry using 5mM Potassium Ferri/ferrocyanide in 10mM PBS pH7.4

Settings

- Estart: 0.0V
- Evertex1: 1.0V
- Evertex2 -0.8V
- Steps 0.01V
- Rate 0.1V/s
- Cycles 4

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Results

The below voltammogram was obtained using the above settings. The initial scan (starting at 0.0V was removed)

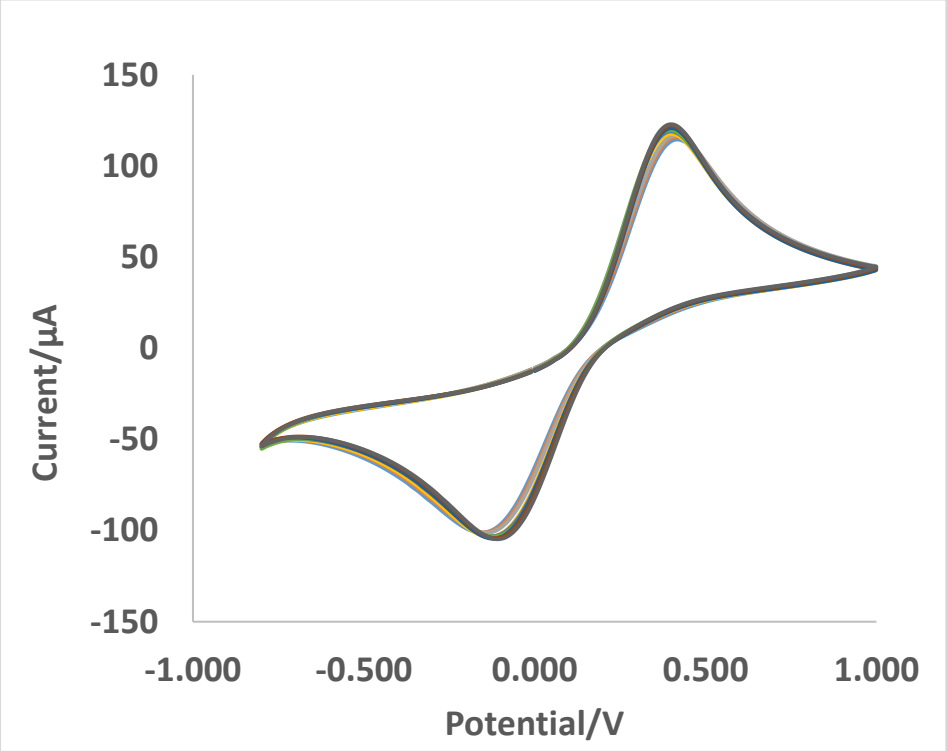

Figure 1: 3 successive scans of mediator solution on sputtered carbon sensor

Sample Performance Data (cont.)

Between scan characteristics (within electrode)

Oxidation peak: 117.9uA at 0.41V,
Reduction peak: -101.7uA at -0.14V,

Peak repeatability (3 scans across 20 sensors within batch)

Oxidation peak coefficient of variation:
Stability 0.9% (scan to scan within sensor)
Repeatability 3.9% (between electrodes)
Reduction peak coefficient of variation:
Stability 0.2% (scan to scan within sensor)
Repeatability 3.4% (between electrodes)

Single use

The electrodes are designed to be single use, for best result use once then discard.

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Technical Data

Parameter	Value
Working Electrode	Carbon
Counter Electrode	Carbon
Reference Electrode	Ag/AgCl
Substrate	PET
Conductive Tracks	Silver
Working Area	12.6 mm^2
Sample Volume	50 – 100 µL
Usage	Single use
Application	For R&D use only.

Engineering and usage data for FMS-0008 screen-printed carbon electrodes

For more information contact: info@FlexMedical-Solutions.com

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