Thin-layer Flow-Cell Screen-Printed Electrodes
Circular WE

Refs. TLFCL110-CIR, TLFCL210AT-CIR, TLFCL210BT-CIR, TLFCL510-CIR, TLFCL010-CIR

Metrohm DropSens Screen-Printed Electrodes integrated in one channel flow-cell (TLFCL110-CIR, TLFCL210AT-CIR, TLFCL210BT-CIR, TLFCL510-CIR and TLFCL010-CIR). These electrodes are based on a three electrode electrochemical cell with a working electrode made of carbon, gold [high (AT) and low (BT) temperature curing inks], platinum or silver, an auxiliary electrode made of carbon and a pseudoreference electrode made of silver. The diameter of the WE electrode is 4 mm as our standard screen printed electrodes.

These devices are useful for working with Flow Injection Analysis (FIA) systems as well as for an easy control of the sample volume in batch mode. They are also suitable for spectroelectrochemical measurements. Due to the transparent cover that defines one channel (height 400 µm, and 100 µL of volume) a thin layer is formed over the electrochemical cell. The cover’s transparency allows the detection of air bubbles inside the cell.

Ref. TLFCL110-CIR
Working electrode: Carbon (4 mm diameter)
Auxiliary electrode: Carbon
Reference electrode: Silver

Ref. TLFCL210AT-CIR & TLFCL 210BT-CIR
Working electrode: Gold AT or Gold BT (4 mm diameter)
Auxiliary electrode: Carbon
Reference electrode: Silver

Ref. TLFCL510-CIR
Working electrode: Platinum (4 mm diameter)
Auxiliary electrode: Carbon
Reference electrode: Silver

Ref. TLFCL010-CIR
Working electrode: Silver (4 mm diameter)
Auxiliary electrode: Carbon
Reference electrode: Silver

The integrated electrodes in thin layer flow cell design (TLFCL) are suitable to perform flow injection analysis. The slide is mounted over the Screen-Printed Electrodes platform delimiting a flow channel. The injection is done through an “in-line luer injection port” (ref. TLFCL-INLINEPORT) where sample volume can be easily controlled by operator through a syringe. This configuration simplifies operability and effectiveness of working in FIA systems.

These electrodes are commercialized in 10 units packs. They should be stored at room temperature, protected from light in a dry place.

Specific cable connector ref. CAC-TLFCL that act as an interface between these electrodes and any kind of potentiostat, are available at Metrohm DropSens.