Optically transparent electrodes (OTEs) allow to perform simultaneously spectral and electrochemical measurements directly through the working electrode. Spectroelectrochemical techniques can be easily used for obtaining spectra through transparent conductive layers while at the same time an electrochemical experiment is carried out. Different OTEs are available in this mix of references including the most useful transparent working electrodes.

Ref. P10 is based on PEDOT [poly(3,4-ethylenedioxythiophene)] as conductive polymer defining a working electrode of 4 mm diameter. Ref. ITO10 has a working electrode made by sputtering of indium, tin and oxygen (Indium-Tin-Oxide) in a proper proportion to form an alloy with high transparency and electrical conductivity. Ref. AUTR10 consists on a thin-layer of gold that provides enough transparency to be considered a OTE. Ref. COTE10 presents an ink-jet carbon electrode based on Single Walled Carbon Nanotubes (SWCNTs).

Plastic substrate: L33 x W10 x H0.175 mm
Electric contacts: Silver

The electrochemical cell consists of:

<table>
<thead>
<tr>
<th>Ref. P10</th>
<th>Ref. ITO10</th>
<th>Ref. AUTR10</th>
<th>Ref. COTE10</th>
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<tbody>
<tr>
<td>Counter electrode: Carbon</td>
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Ref. OTEMIX is commercialised in 40 units packs mixing 10 units of refs. P10, ITO10, AUTR10 and COTE10. They should be stored at room temperature, protected from light in a dry place.

Also, specific connectors that act as an interface between the screen-printed electrode and any potentiostat (refs. DSC-P, CAC-P) and other accessories are available at DropSens.

Related products

SPELEC
TRANSCELL
CAC-P
TFIBER-VIS-UV
RPROBE

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