FlexCell
The most versatile flow cell for LC-ECD

- Exchangeable working electrode
- Working Electrodes: GC, Pt, Au, Ag, MD
- Low cost of ownership
- Dedicated for PAD applications

The name FlexCell™ is chosen since it emphasizes the versatility and serviceability of this thin-layer flow cell in the Antec program. With its unrivaled design working electrodes can be serviced or replaced in a few minutes. The low cost of ownership is attributed to the replacement of only the working electrode disc. The same holds for switching electrode material for different applications using the same flow cell. This makes the Flexcell suitable for all sorts of electrochemical analyses like the usual biogenic amines (glassy carbon), carbohydrates (gold), peroxides (platinum), halides (silver), sulfides (Magic Diamond) etc.

Applications
The FlexCell properties are particularly useful in applications using metal working electrodes. A typical example is the pulsed amperometric detection (PAD) of carbohydrates, where consumption of the gold working electrode occurs. Replacement of the gold electrode is done in a few minutes. The total cell volume is less than 1 µL, which makes the FlexCell suitable as an electrochemical reactor in-line with other detectors.

PAD profile
Example of a 4-step PAD potential waveform

Electrochemistry Discover the difference
Specifications FlexCell

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell type</td>
<td>Three electrode, thin-layer reactor cell</td>
</tr>
<tr>
<td>Cell volume</td>
<td>approx. 0.7 µL (50 µm spacer)</td>
</tr>
<tr>
<td>Spacers</td>
<td>50 µm and 130 µm</td>
</tr>
<tr>
<td>Working electrode diameter</td>
<td>8 mm</td>
</tr>
<tr>
<td>Working electrode area (wetted)</td>
<td>15 mm²</td>
</tr>
<tr>
<td>Working electrodes (WE)</td>
<td>Glassy carbon (GC), Magic Diamond™ (MD), gold (Au), platinum (Pt), silver (Ag) and copper (Cu)</td>
</tr>
<tr>
<td>Reference electrode</td>
<td>HyREF™ (Pd/H₂), salt bridge and ISAAC</td>
</tr>
<tr>
<td>Auxiliary electrode</td>
<td>Carbon-loaded PTFE</td>
</tr>
<tr>
<td>Wetted materials</td>
<td>PCTFE, FEP, palladium, carbon-loaded PTFE, material of WE</td>
</tr>
<tr>
<td>Flow rate</td>
<td>Typically 0.2 - 1.5 mL/min</td>
</tr>
<tr>
<td>Fluidic connections</td>
<td>1/16” o.d. PEEK tubing, with 10-32 PTFE fingertight connections</td>
</tr>
</tbody>
</table>

Part no  FlexCell with WE and REF
102.4305  Flexcell MD HyREF
102.4305  Flexcell GC HyREF
102.4320  Flexcell Pt HyREF
102.4325  Flexcell Au HyREF
102.4330  Flexcell Ag HyREF

For FlexCell mounted with Salt Bridge or ISAAC reference electrode and different WE, contact Antec Scientific.

Part no  Ordering Information replacement WE
102.5007  Flexcell WE disc GC (glassy carbon)
102.5022  Flexcell WE disc Pt (platinum)
102.5027  Flexcell WE disc Au (gold)
102.5032  Flexcell WE disc Ag (silver)
102.5037  Flexcell WE disc Cu (copper)
102.5050  Flexcell WE disc MD (magic diamond)

For other WE, contact Antec Scientific

HPLC-ECD of carbohydrates in pulse mode using a gold electrode

Separation of carbohydrates by anion exchange chromatography, detected with a FlexCell (Au + HyREF electrodes).

Antec Scientific (USA)
info@AntecScientific.com
www.AntecScientific.com
T 888 572 0012

Antec Scientific (worldwide)
info@AntecScientific.com
www.AntecScientific.com
T +31 71 5813333