The ReactorCell™ is a basic starter cell, ideally suited for oxidation, reduction and/or activation of compounds that pass through the cell. For single component analysis, the cell can be used in infusion mode by simply connecting it to a syringe pump for direct EC/MS experiments. For multi-component analyses, the electrochemical cell can be positioned after the LC column to perform LC/EC/MS experiments on the separated components. The cell is controlled via the ROXY Potentiostat while the flow rate and working potential can be optimized using the Dialogue software. The ReactorCell is based on a thin-layer flow cell concept, comprising of a very smooth working electrode surface over which the sample is flowing. This results in virtually zero sample adsorption unlike porous flow through electrodes which are prone to adsorption and carry over. The cell can be disassembled within seconds for easy cleaning of the working electrode and cell compartment. The ReactorCell is supplied with 4 working electrodes, Pt, Au, Glassy Carbon (GC), and Magic Diamond (MD), which can be quickly and easily exchanged. Magic Diamond (MD) also known as Boron Doped Diamond (BDD) is the workhorse and electrode of choice for oxidation reactions up to a maximum applicable voltage of 4.0 V. Pt and Au are typically employed for specific reactions such as hydroxylation or N-oxidation.

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- **Flowrate 1-20uL**
- **Universal starter cell for oxidation / reduction / activation**
- **Virtually zero sample adsorption**
- **Easy electrode exchange, supplied with various electrodes**
**Schematics ReactorCell**

- **Cell type**: Three electrode, thin-layer reactor cell
- **Cell volume**: approx. 0.7 µL (50 µm spacer), 1.5 µL (100 µm spacer)
- **Spacers**: 50 µm
- **Working electrode diameter**: 8 mm
- **Working electrode area (wetted)**: 15 mm²
- **Working electrodes (WE)**: Included: Glassy Carbon (GC), Magic Diamond™ (MD), gold (Au), platinum (Pt), Optional: silver (Ag), copper (Cu), reducing electrodes: TiBlue™, TiGery™
- **Reference electrode**: HyREF™ (Pd/H₂)
- **Auxiliary electrode**: Carbon-loaded PTFE
- **Wetted materials**: PCTFE, FEP, Palladium, carbon-loaded PTFE, WE material (Au or Pt, GC, MD, Ag, Cu, TiO₂)
- **Flow rate**: Typically 1 – 20 µL/min
- **Max. pressure**: 40 psi / 2.8 bar
- **Fluidic connections**: 1/16" o.d. PEEK tubing, with 10-32 PTFE fingertight connections
- **Electric connections**: Cell cable for use with ROXY Potentiostat

**Part no** | **Description**
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210.0040 | ReactorCell kit consisting of: ReactorCell, spacers, reference electrode (HyREF) and working electrodes: Magic Diamond (MD), Glassy Carbon (GC), Pt and Au (each 1 x).

**Spare Parts**

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<thead>
<tr>
<th>Part no</th>
<th>Description</th>
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<tbody>
<tr>
<td>210.0913</td>
<td>HyREF reference electrode</td>
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<tr>
<td>210.2217</td>
<td>Spacer 50 µm</td>
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<tr>
<td>210.5007</td>
<td>Glassy Carbon (GC) working electrode</td>
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<tr>
<td>210.5010</td>
<td>TiBlue™ reducing electrode</td>
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<tr>
<td>210.5022</td>
<td>Platinum (Pt) working electrode</td>
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<td>210.5032</td>
<td>Silver (Ag) working electrode</td>
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<tr>
<td>210.5037</td>
<td>Copper (Cu) working electrode</td>
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<tr>
<td>210.5050</td>
<td>Magic Diamond (MD) working electrode</td>
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