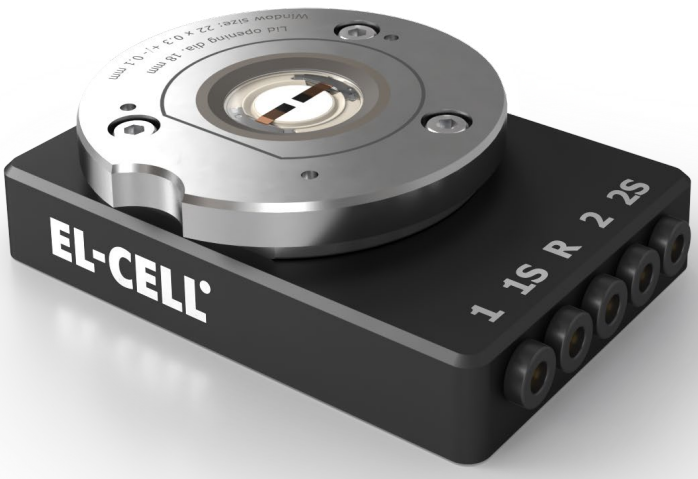
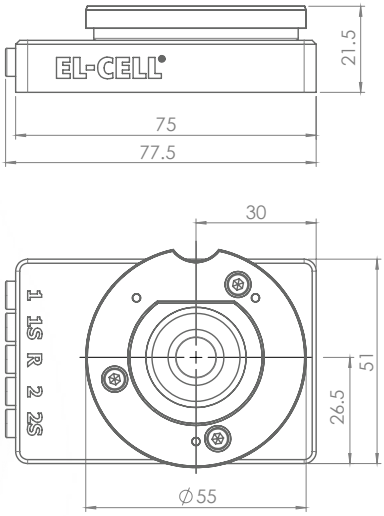


Measurements in mm:



ECC-Opto-10

The next generation test cell for optical and X-Ray characterization in the reflective mode.

The ECC-Opto-10 test cell is an advanced next generation battery test cell. It is designed for in situ characterization of electrodes using optical methods such as light microscopy, Raman spectroscopy, or X-Ray in reflection mode.
The ECC-Opto-10 is connected to the battery tester via 2 mm cell cable with banana plugs. It can be used with any potentiostat and battery tester.

Use Cases:

- 2-electrode setup
- 3-electrode setup
- Light microscopy
- Raman spectroscopy
- X-Ray
- Aprotic electrolytes

Key Features

- High cycling stability due to improved sealing concept
- Dedicated sample holders for different electrode arrangements available
- Fast assembly and dismantling and easy cleaning of cell components
- Electrodes are easily accessible for post-mortem analysis
- Low cell height of 21.5 mm for trouble-free use under many light microscopes
- Fits on standard microscope sample stages (76 × 26 mm (DIN ISO 8037-1))



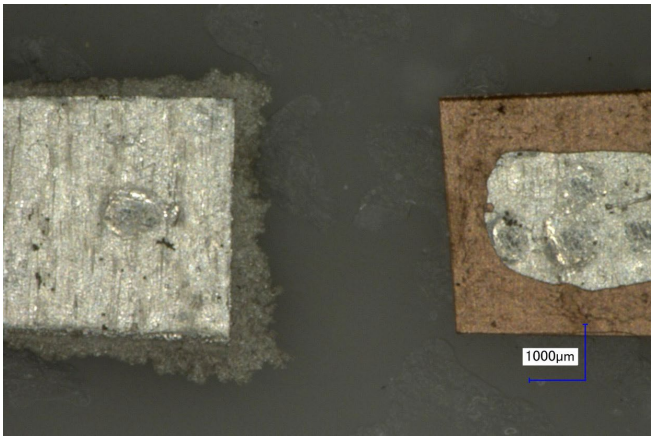
Product website:

Manual (PDF):

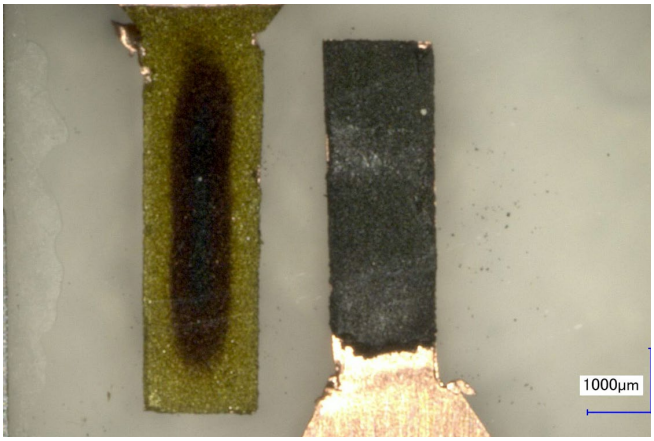
EL-Cell GmbH Tempowerkring 8 21079 Hamburg, Germany +49 40 79012-734 sales@el-cell.com el-cell.com

Specifications	
Height	21.5 mm
Width	51 mm (base), 55 mm (in total)
Depth	75 mm (base), 77.5 mm (in total)
Weight	0.3 kg
Electrode dimensions	Up to 10 mm in diameter
Operational temperature range	-20 to +70 °C
Optical characterization mode	Reflective
Cell operation	Full cell, cathode half cell, anode half cell
Cell connection	Cables with 2mm banana plug

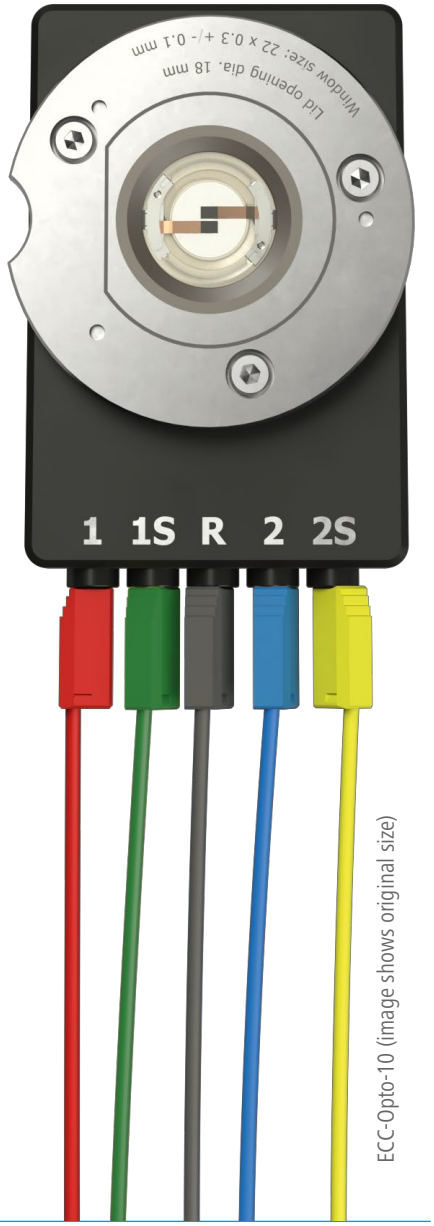
Sample test results



Lithium metal electrodes embedded into a glass fiber separator soaked with electrolyte. Applying a current of 20 µA for 5 hours makes the lithium to dissolve from the supporting copper foil (right electrode) and to plate as dendrites on the opposite side (left electrode).



The picture shows two graphite electrodes embedded in a glass fiber separator soaked with electrolyte. The graphite electrode on the left is being lithiated from the lithium metal electrode below the separator.



ECC-Opto-10 (image shows original size)