

Quick Reference



Electrochemical Test Cell **ECC-REF**

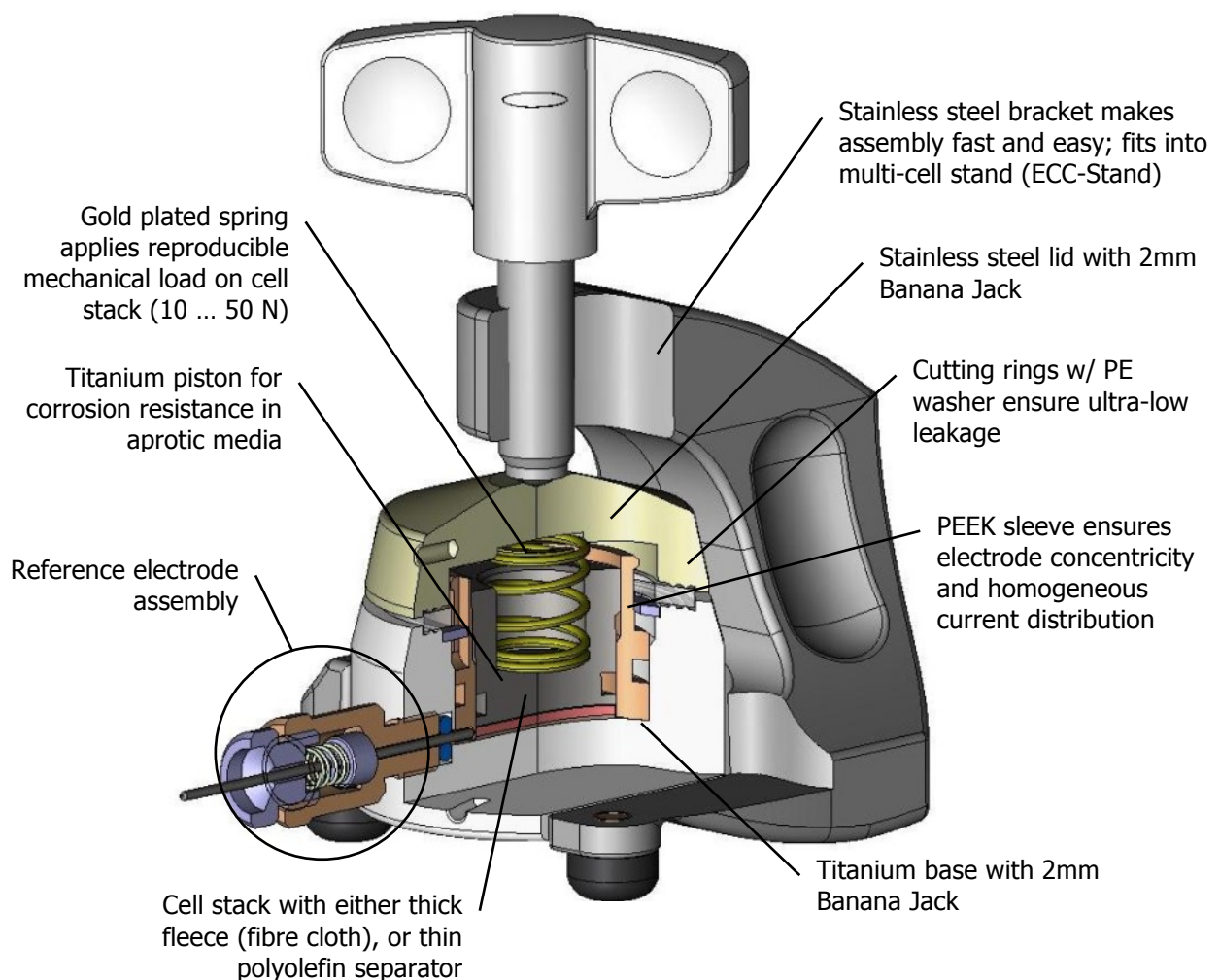
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Product Description

The ECC-REF Electrochemical Cell is a standard test cell for the characterization of lithium ion battery systems as well as other aprotic chemistries. With the ECC cell design we have adapted the advantages of the industry's standard button (coin) cell while avoiding its serious shortcomings for everyday lab usage. The ECC cell design is the result of many years experience and iterative improvement in lithium ion battery and supercapacitor electrode testing. It is perfectly suited for voltammetry and impedance as well as cycle life testing.

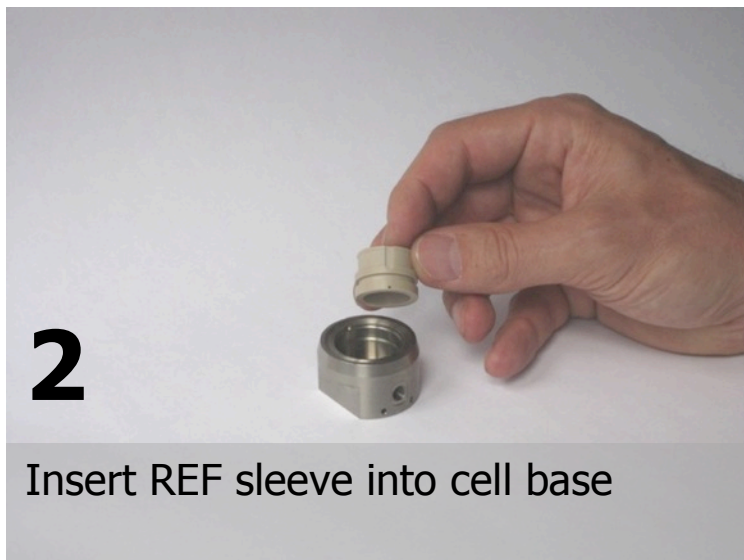
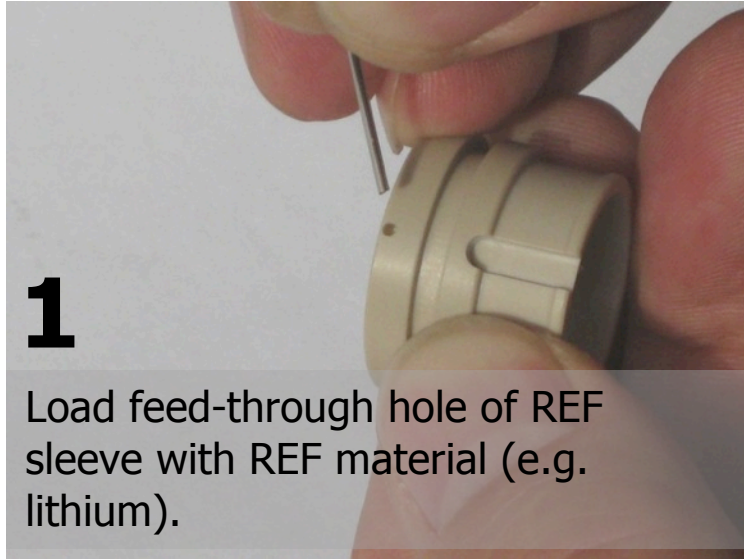
As a member of the modular ECC test cell series, the ECC-REF test cell can easily be refitted for 2-electrode operation, or for use with various aqueous electrolytes. This quick reference covers solely the ECC-REF test cell.

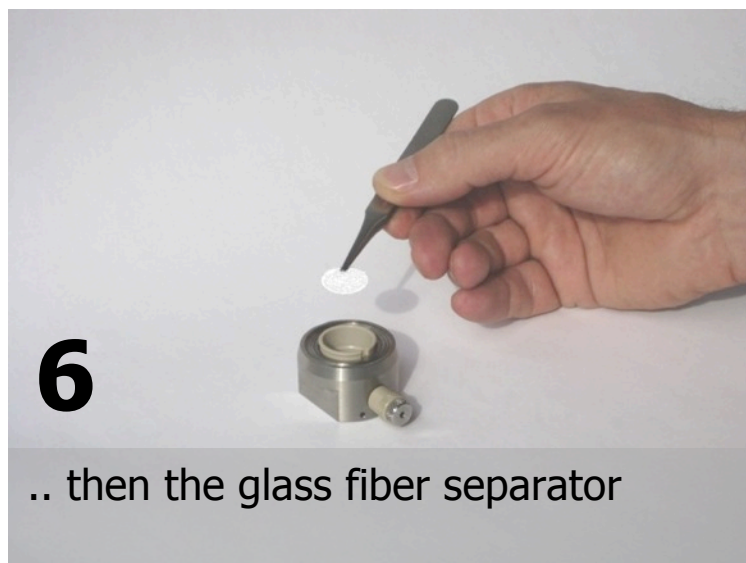
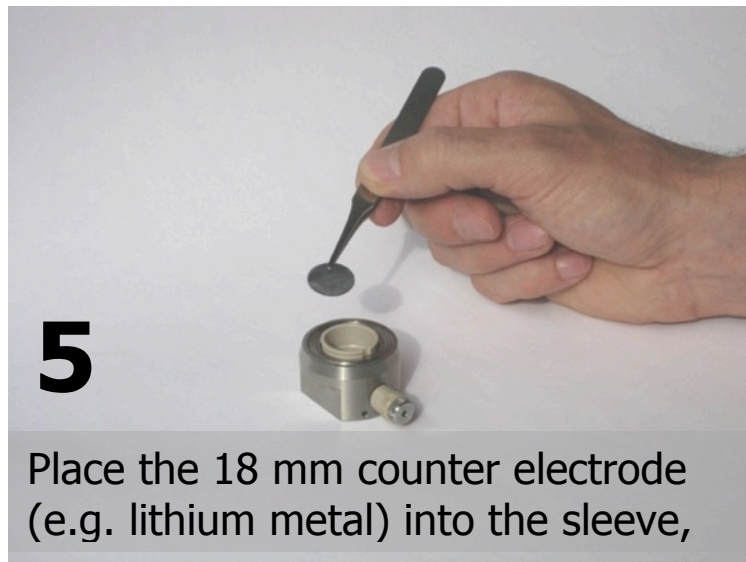
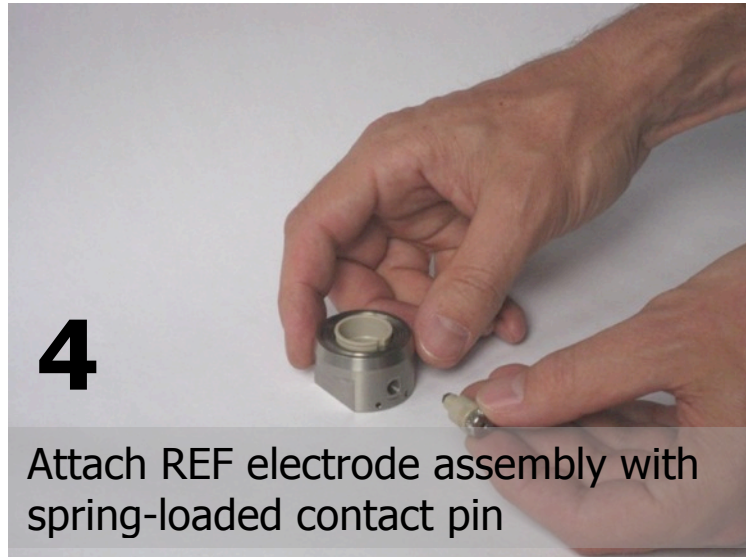


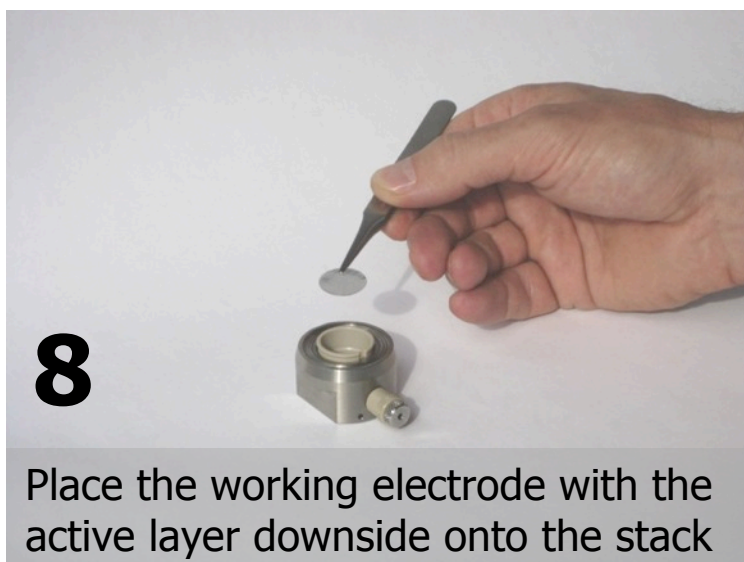
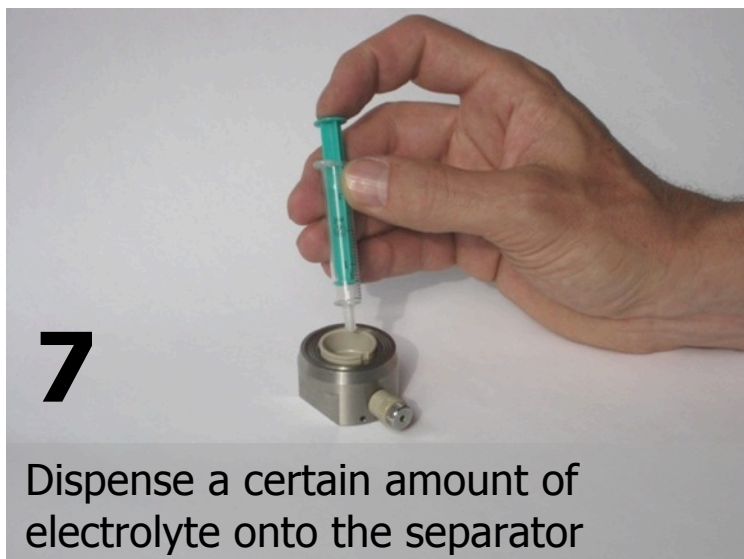
ECC-Ref Main Characteristics:

- High precision 18 mm diameter sandwich geometry with <0.1 mm electrode concentricity
- Reliable low leakage sealing with PE washers, He leakage rate <math><10^{-8}</math> std cm³/s
- Temperature operation range -40 to +80 °C
- Easy and reliable electrolyte filling upon assembly
- Fast assembly and dismantling, and easy cleaning of cell components
- Electrodes are easily accessible for post-mortem analysis
- Reusable cell components except for PE sealing
- Small and defined electrolyte volume down to 0.1 cm³ due to minimized dead volume
- Adjustable, reproducible and homogeneous mechanical pressure on electrodes
- Materials in media contact are titanium and PEEK (other materials on request)
- Modular cell construction with many interchangeable components.
- Optional refitting kits e.g. for aqueous electrolytes, and vacuum filling
- "Plug and play" multi-cell fixture available for operation inside temperature chamber or wall mounting, and for connection to a multi-channel potentiostat or battery tester
- Size (including bracket): 90 mm x 54 mm x 70 mm (height x width x depth)
- Weight: 640 g

Assembly Instructions:











For more detailed information please refer to the user manual



Other products of the ECC series:

ECC-STD

2-electrode test cell for use with aprotic electrolytes.

The cell is especially suited for use with 'Celgard'-type separators, and for vacuum filling. Materials in media contact are titanium and PEEK.



ECC-AQU

3-electrode test cell for use with aqueous electrolytes.

Materials in media contact are gold and PEEK, compatible with most aqueous electrolytes.



ECC-STAND

Multi-cell fixture accommodates up to 5 testcells and routes cell signals towards a battery tester or potentiostat.

