

# TCE Cell One

## Two compartments – plenty of options

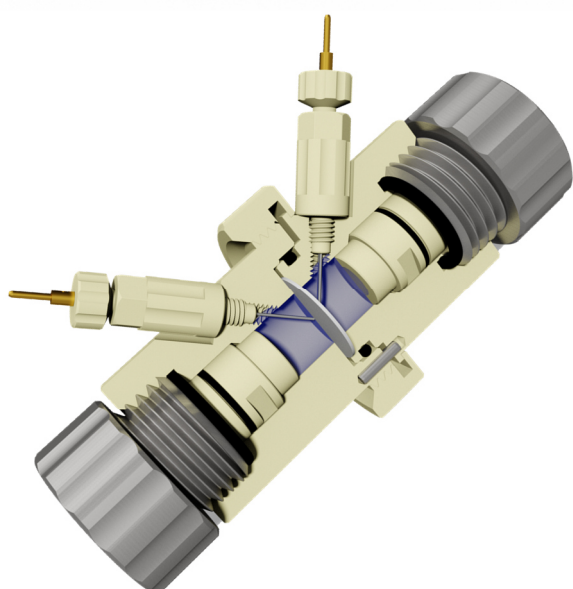
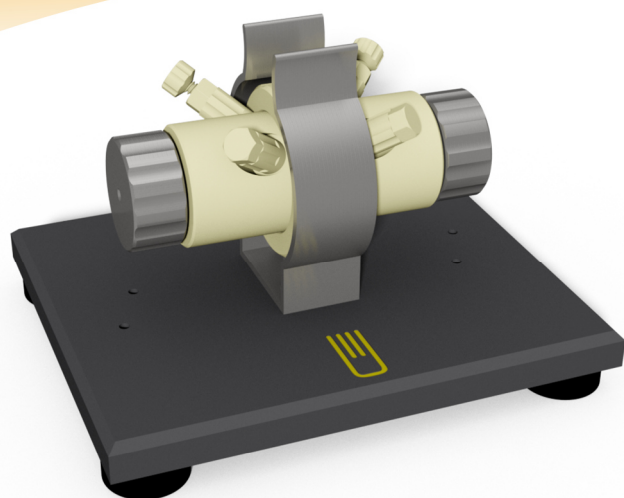
The TCE Cell One requires only a **small amount of liquid electrolyte** which can be split into **two compartments**.

**Two ports on each side** of the cell corpus provide inlets for inserting reference electrodes, filling the cell with electrolyte, or purging the electrolyte with gas.

An **innovative current collector design** allows for using different electrode materials and switching between them easily.

For assembling and disassembling, **no tools** are needed.

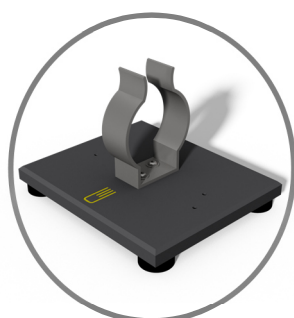
For adjusting the **temperature**, the cell can be used inside of a climate chamber.



## Typical Applications:

- Investigation of **solid electrolytes** being in contact with **liquid electrolytes**
- **Membrane and separator testing** (permeability, conductivity)
- Investigation of **redox reactions**
- **Electrolyte testing** (e.g. conductivity)

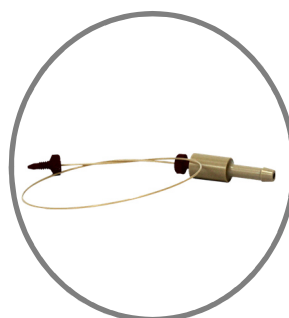
## Available accessories



Test Cell Holder



Different Electrode Material Tips



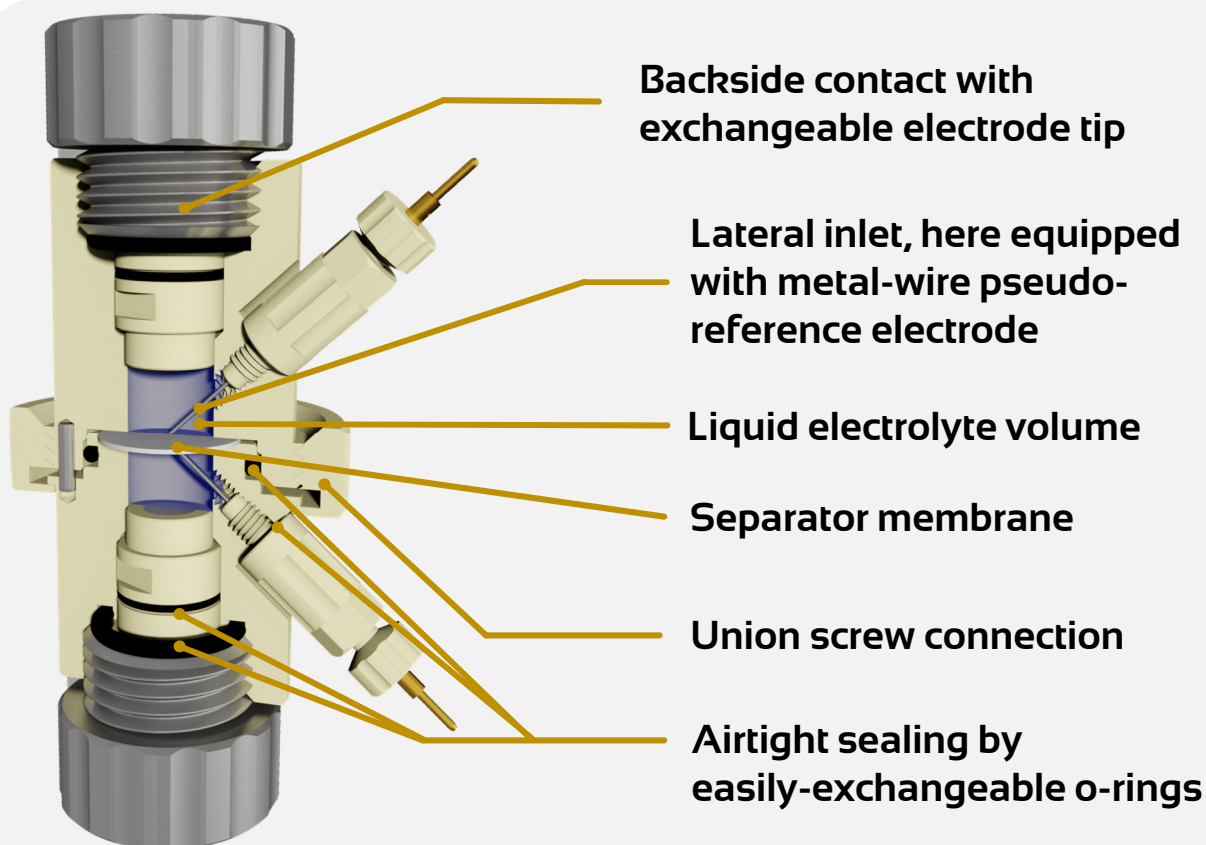
Gas Inlet & Filling Set



Reference Electrodes



# TCE Cell One



## Technical Specifications

|                                      |                                                                 |
|--------------------------------------|-----------------------------------------------------------------|
| <b>Suitable samples:</b>             | Polymeric foils, membranes, solid electrolyte pellets           |
| <b>Required electrolyte volume</b>   | approx. 1.3 ml                                                  |
| <b>Temperature range:</b>            | -40 °C ↔ +100 °C                                                |
| <b>Materials in sample contact:</b>  | PEEK, electrode material, EPDM                                  |
| <b>Min./Max. membrane diameter</b>   | 12.0 mm / 20.0 mm                                               |
| <b>Max. membrane thickness</b>       | 1.0 mm                                                          |
| <b>Available electrode materials</b> | Stainless steel, platinum, gold, glassy carbon, lithium, sodium |
| <b>Reference electrode options:</b>  | Metal-wire pseudo-RE, re-fillable RE, Lithium RE                |

## References

The TCE Cell was developed as part of the project LiMES funded by the Federal Ministry for Economic Affairs and Climate Action as part of the 7.Energieforschungsprogramm.

Supported by:



Federal Ministry  
for Economic Affairs  
and Climate Action

on the basis of a decision  
by the German Bundestag



[www.rhd-instruments.de](http://www.rhd-instruments.de)



[info@rhd-instruments.de](mailto:info@rhd-instruments.de)

**rhd**  **instruments**  
flexible cell solutions