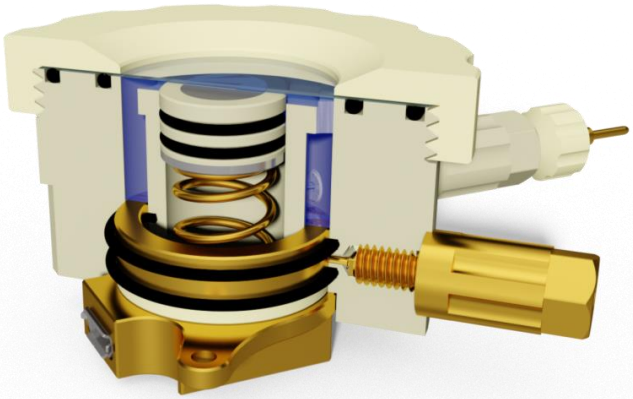
TSC Raman

Designed for in situ Raman spectro-electrochemistry

The TSC Raman enables **in-situ Raman spectro-electrochemical studies** of interfaces between electrode materials and electrolyte solutions that are **air- and moisture-sensitive**. A stainless steel electrode is used as support for the working electrode material and a gold-plated stainless steel ring as counter electrode. By default, the cell comes with a **quartz glass window**. The PEEK housing provides **ports for** the insertion of **reference electrodes and capillaries**.



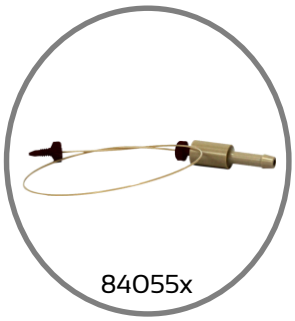
Typical Applications:

- Investigations on **battery electrode material | battery electrolyte**
- Study of **corrosion processes at metal surfaces** in contact with salt solutions in different solvents
- **SERS** experiments to shed light on double layer structures.
- All types of **light exposure experiments**

Suggested Accessories

840582
Microcell Passive

84052x
Micro-Reference Electrodes



84055x
Gas Inlet & Filling Set

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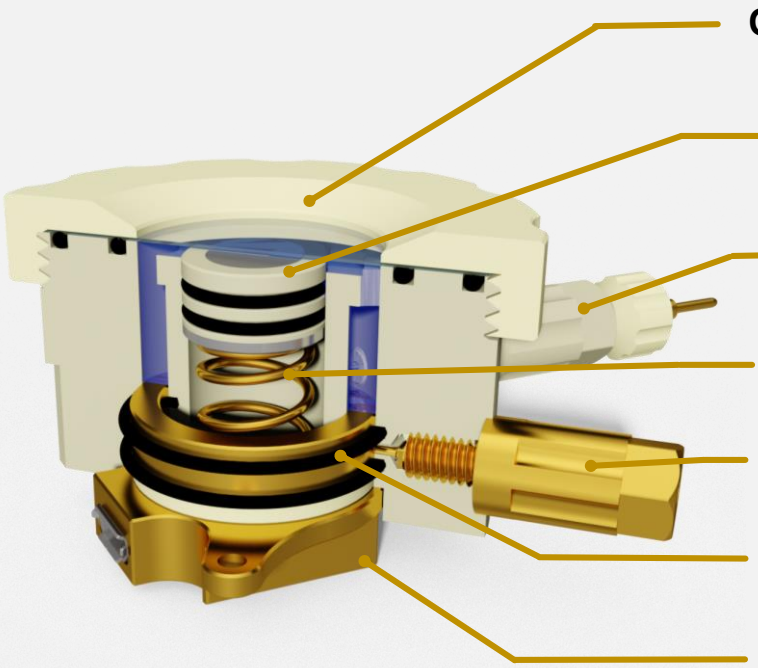
flexible cell solutions

TSC Raman



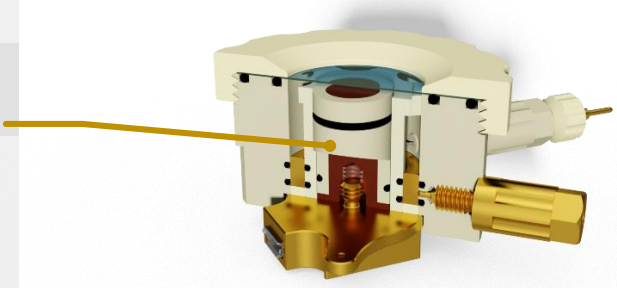
Technical Specifications

Suitable samples:	Raman-active species and interfaces
Temperature range:	+10 °C ↔ +30 °C
Materials in sample contact:	PEEK, FFKM, stainless steel, gold, quartz glass
Sample volume (standard)	2 ml
Requirements for working electrode material	Ø 12 mm, material coated on conductive substrate
Thickness of quartz window	0.5 mm
Options:	• WE contact with fixed height • Customization possible

References

[1] H. Radinger et al., *'Manganese Oxide as Inorganic Catalyst for the Oxygen Evolution Reaction Studied by X-Ray Photoelectron and Operando Raman Spectroscopy'*, *ChemCatChem* **(2021)**, *13*, 4, 1175. **https://doi.org/10.1002/cctc.202001756**

[2] H. Radinger et al., *'Importance of Nickel Oxide Lattice Defects for Efficient Oxygen Evolution Reaction'*, *Chem. Mater.* **(2021)**, *33*, *21*, 8259. **https://doi.org/10.1021/acs.chemmater.1c02406**



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