DATASHEET

In-Situ Raman Two-Electrode Battery Test Cell — Sapphire Window, Spring-Loaded Titanium

Two-electrode titanium cell with sapphire window for operando Raman of electrode interfaces. Spring-loaded, sample-to-window distance <2 mm, 20 mm electrodes. Assemble in glovebox, operate in open air.

APPLICATION

Typical applications: SEI formation and evolution; lithiation/delithiation of alloying anodes (Si, Sn); electrolyte decomposition tracking. Suitable for: Raman at 532/633/785 nm; upright/confocal microscopes.

KEY SPECS

- Body Material: High-Purity Titanium
- Optical Window: Sapphire, Ø8 mm
- Sample-to-Window Distance: < 2 mm
- Sample Diameter: 20 mm

1. Specifications

Body Material	High-Purity Titanium
Optical Window	Sapphire, Ø8 mm
Sample-to-Window Distance	< 2 mm
Sample Diameter	20 mm
Electrode System	Two-Electrode
Current Tabs	Copper, Gold-Plated
Insulation	PEEK
Assembly	Spring-loaded; glovebox assembly, open-air operation

2. Product Details

The LabCore In-Situ Raman Two-Electrode Battery Test Cell lets you run Raman spectroscopy on the electrode interface while the cell cycles — operando, not ex-situ.

Close to the window, strong signal. The sample sits less than 2 mm from the Ø8 mm sapphire window, minimizing signal loss — a decisive detail for inherently weak interface signals like SEI species and phase-transition products.

Titanium body, spring-loaded. Spring loading keeps interface contact stable through cycling; PEEK insulation and gold-plated copper tabs keep impedance low. Assemble in a glovebox, then run in open air.

3. Order / Quote

Model	Pack Size	Availability
LC-B002RM-SW-20	1 set: titanium cell with sapphire window, spring-loaded assembly, PEEK insulation, gold-plated copper tabs. Electrode 20 mm.	Made to order (quote)

Current pricing and ordering: labcorematerials.com/products/in-situ-raman-two-electrode-battery-test-cell/

4. Shipping & Compliance

- Empty hardware, no lithium or electrolyte. Sapphire window packed with shock-absorbing insert. Not dangerous goods. International express.

Contact

business@labcorematerials.com

www.labcorematerials.com/products/in-situ-raman-two-electrode-battery-test-cell/