LabCore
MATERIALS

# 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.

**In-Situ Cells**

Materials Characterization

Electrochemistry & Catalysis

Energy Storage

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## Product Overview

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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.

## Technical Specifications

| Parameter | Value | Unit |
|---|---|---|
| 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 | |

## 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/**

## Shipping & Compliance

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

## Contact

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