

TECHNICAL DATA SHEET

InSitu Pro™ In-Situ XRD Battery Cell ABE

In-situ battery cell for XRD · beryllium window · 2θ 10°–180° · reflection · 316L



InSitu Pro™ ABE — in-situ XRD battery cell. X-rays enter and exit through the beryllium window in reflection geometry.

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SECTION I

Product Description

InSitu Pro™ ABE is an in-situ XRD battery cell dedicated to X-ray diffraction testing of lithium batteries during charge and discharge. The cell body and sample stage are 316L stainless steel, and X-rays enter and exit through a beryllium window in reflection geometry over a specified diffraction angle 2θ of 10° – 180° , so structural changes can be followed while the cell cycles.

The design supports X/Z-direction adjustment for alignment on the diffractometer and combines rapid assembly and disassembly with highly repeatable sealing, greatly improving experimental efficiency. The cell measures $\varnothing 54 \times 19.2$ mm at 0.8 kg; an adjustment bracket is listed as an option, and diffractometer-specific installation is confirmed at quotation.

SECTION II

Specifications

InSitu Pro™ ABE — Specifications	
Model #	ABE
SKU #	EIBE001
Material	316L
Sample Stage	316L
Optics	Reflection
Diffraction Angle 2θ	$10^\circ \sim 180^\circ$
Window Material	Beryllium
Dimensions	$\varnothing 54 \times 19.2$ mm
Net Weight	0.8 kg

SECTION III

Application Fields

- In-situ XRD of lithium batteries during charge and discharge
- Reflection-geometry measurements through a beryllium window (2θ 10° – 180°)
- X/Z-direction alignment on the diffractometer
- Experiments requiring rapid cell assembly and repeatable sealing

SECTION IV

Configuration

Basic configuration (per cell): 1 × main unit (ABE in-situ battery cell), plus connection cables and accessories. Options include an adjustment bracket. Final applicability and configuration are confirmed at quotation.

The ABE is supplied by quotation: request via the product page or the InSitu Pro™ Stage Selector at www.acsmaterial.com; our engineers confirm the cell, mounting, and configuration and reply with pricing and lead time.

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