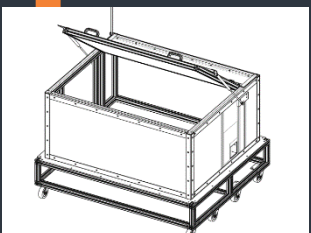
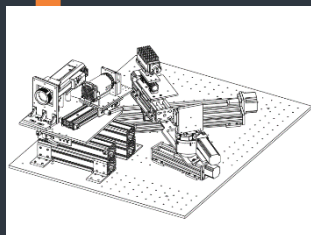




easyXAFS300

High-Powered, User-Friendly, Lab-Based XAFS with Synchrotron-quality Spectra



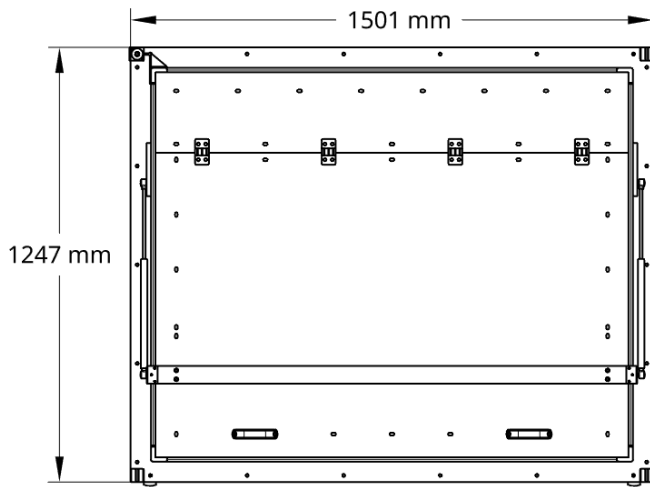
- Rapid transmission mode XAFS
- Proven research-quality performance
- High throughput for sample characterization or product testing
- Suitable for in situ R&D in electrical energy storage, catalysis, etc.
- Virtual beamline appearance with fully supported, easy to use software
- Run multiple samples or sample conditions with scripted operations
- Easy integration with ancillary equipment for control of sample conditions.
- Extremely low maintenance

Product Specifications

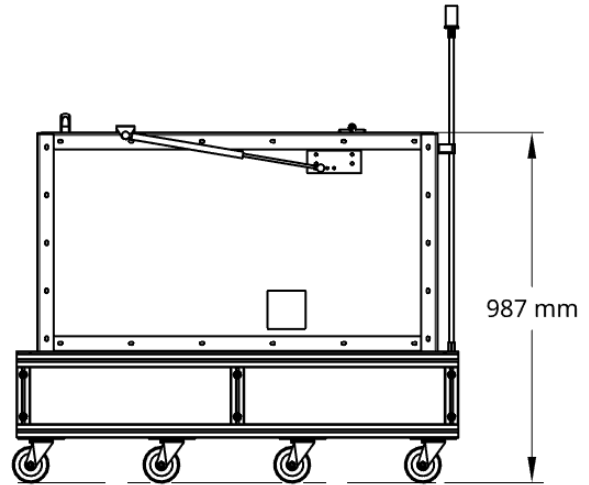
Energy Range	Standard operations from 5-12 keV. Some utility up to 19 keV
Angular Range	55-85 degrees Bragg angle
Resolution	Typically 0.5-1.5 eV near backscatter for 7-9 keV
Reproducibility	<50 meV energy scale drift with no monochromator realignment
Flux	Typical monochromatic flux of 300,000-500,000 photons/s when working near backscatter for 7-9 KeV
Utility Requirements	Flexible electricity requirements; helium gas for flight path

X-ray Source	1.2-kW standard XRD-type tube (Mo or W anode material)
Analyzer Crystals	Spherically-bent Si or Ge analyzers with 10-cm diameter and 50-cm radius of curvature
Analyzer Alignment	Pre-aligned with "clock angle protocol" (pat. pend.) for rapid (~5 min) and reproducible swapping
Detector	Large-area SDD for rejection of background and harmonics
Sample Turret	7-position, motorized sample wheel available for programmable XAFS studies
Software	LabVIEW-based GUI for calibration, regular operations, scripted scans and easy integration with external equipment

Dimensions



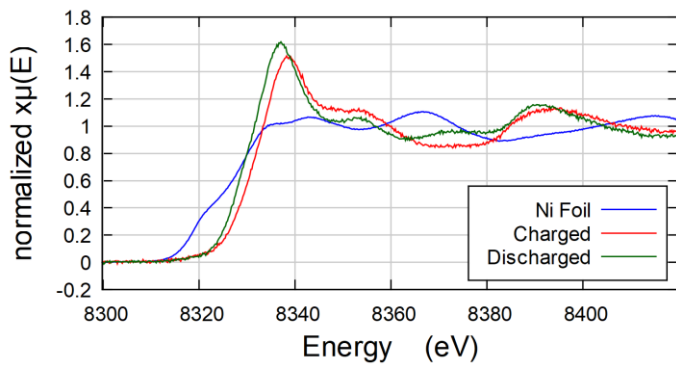
Top View



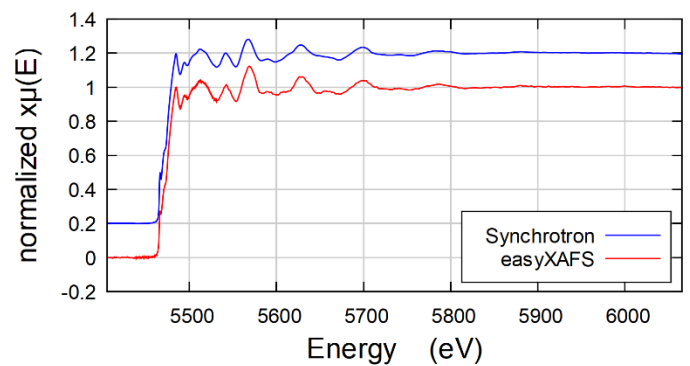
Side View

Example Data

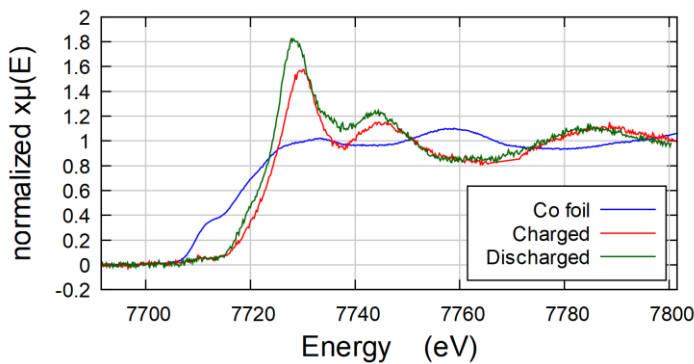
Battery Pouch Cell: Ni XANES



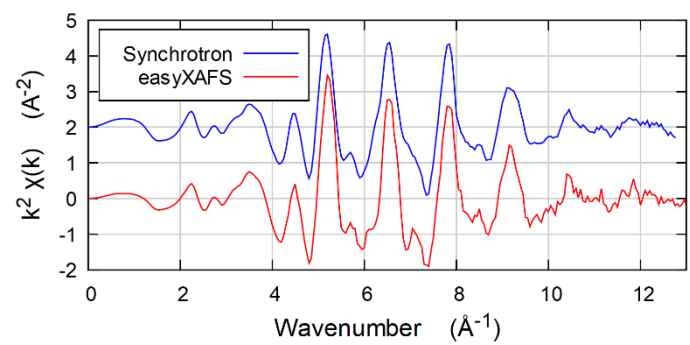
V EXAFS



Battery Pouch Cell: Co XANES



V EXAFS



XES (high-resolution XRF) upgrade

The "easyXAFS300+" option adds on an auxiliary 100-W tube for research-quality x-ray emission spectroscopy (XES) measurements in synchrotron-comparable integration times. Laboratory XES works on even very dilute samples and often provides a handle on oxidation state and spin state, and ligand identity.

