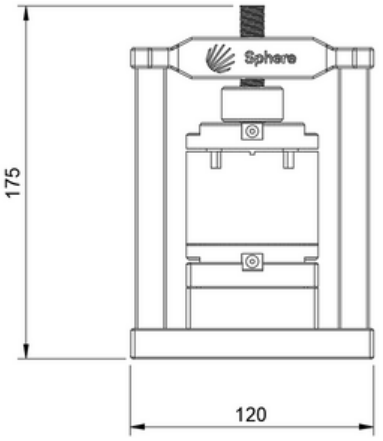
The ASC-T+



Dimensions: 175 x 120 x 100 mm
Weight: Pressure frame, 5 kg / Test cell, 0.5 kg,
Pressure ranges: 0-20 / 0-100 / 0-400 MPa

Introducing the ASC-T+: Elevating Solid-State Battery Research to New Heights

The ASC-T+ is the latest innovation in solid-state battery research, designed to offer even more test capabilities than its predecessor, the ASC-T. One of the standout features of the ASC-T+ is its adaptability to varying sample sizes, making it an invaluable tool for upscaling new battery systems. Whether you are working on addressing the performance or scalability of new battery materials, the ASC-T+ can accommodate your needs, ensuring that your research remains versatile and responsive to the demands of the industry.

Moreover, the ASC-T+ incorporates cutting-edge pressure monitoring and temperature control systems, ensuring that your experiments are conducted under precisely controlled conditions. This level of control not only enhances the accuracy of your results but also accelerates the optimization process. With exchangeable insulation sleeves and a reference electrode, the ASC-T+ offers unprecedented flexibility and convenience, allowing you to tailor your setup to the unique requirements of your research. And all of this comes in a compact and space-efficient design, maximizing the utility of your laboratory space.

MAIN FEATURES

- Multiple sample sizes
- Pressure Monitoring
- Temperature control
- Exchangeable insulation sleeves
- Reference electrode
- Compact dimensions
- Fixed thickness mode
- Fixed pressure mode
- Swelling monitoring
- Multiple spring constants
- 4-points resistivity probe

Schedule a meeting:

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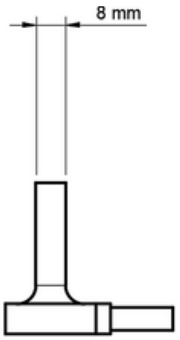
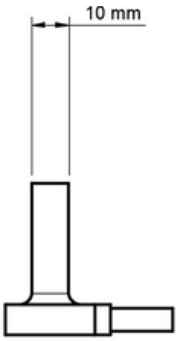
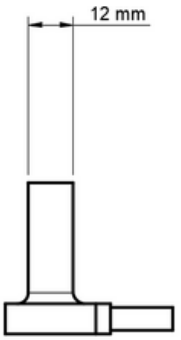
Size 1
Lowest TRL
New synthesized materials



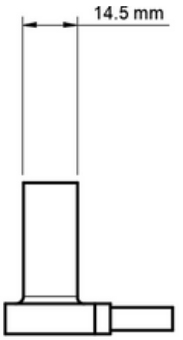
Size 2
Low TRL
New synthesized materials in bigger batches



Size 3
Middle TRL
Increased sample size for larger material batches



Size 4
Higher TRL
Biggest sample size for technology validation



Unleash the power of precise pressure control with ASC-T+

In the field of solid-state batteries, precise control over pressure is a critical but often overlooked factor. Our innovative ASC-T+ system is designed to provide researchers with an advanced tool for mastering this crucial element. Real-time pressure monitoring capabilities offer invaluable insights into material sample preparation and swelling behavior during tests, enriching the understanding of battery performance. The user-friendly control interface simplifies the process, enabling seamless documentation of pressure changes alongside electrochemical data.

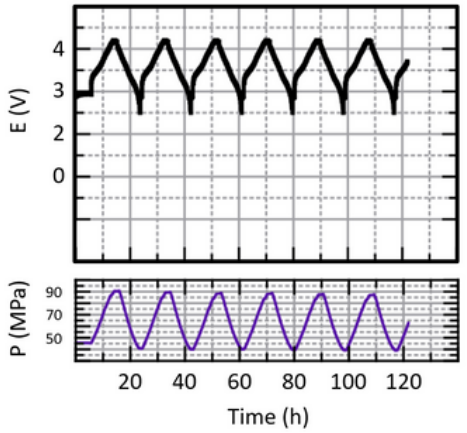


Fig. 1 - Electrochemical charge and discharge cycles of a solid-state battery cell prototype with in-operando sample pressure monitoring.

Unlock New Frontiers with Advanced Temperature Control

Whether you're exploring thermal stability or studying performance under elevated temperatures, ASC-T+ features an advanced built-in heating system, providing researchers with precise control over sample temperatures, spanning from room temperature to 200 °C. This capability is seamlessly integrated with concurrent pressure monitoring and electrochemical testing, offering a comprehensive solution for researchers looking to navigate unexplored territories in solid-state battery research with the utmost precision.

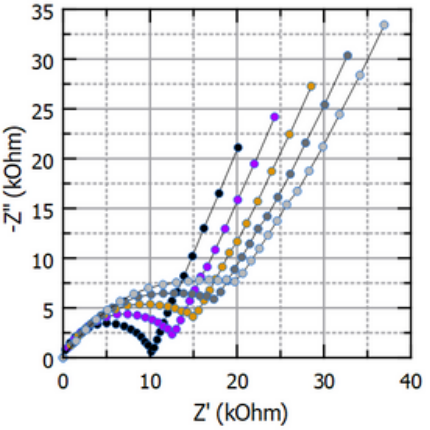
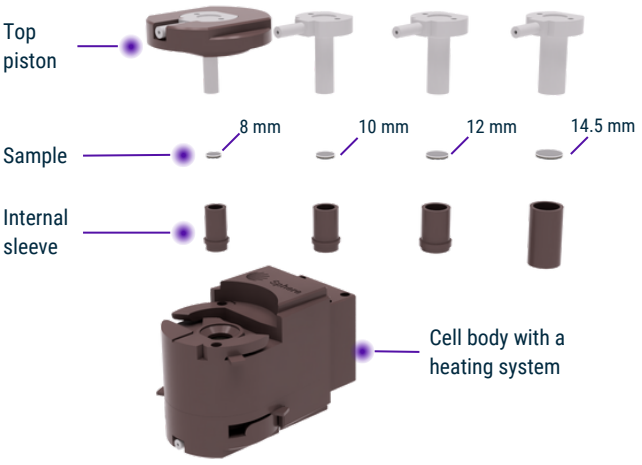


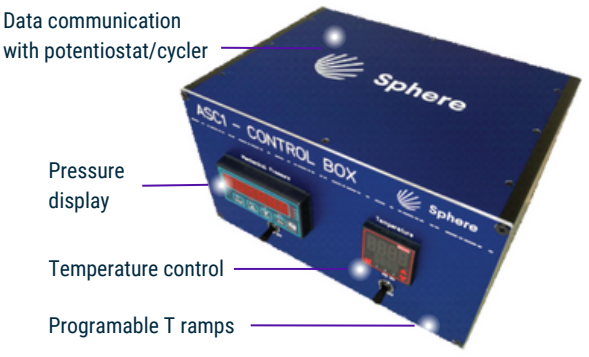
Fig. 2 - Impedance measurement of solid-state electrolyte under different temperatures for estimation of ionic conductivity properties.

Elevating Solid-State Battery Research with ASC-T+: Multiple Sample Size Versatility

The ASC-T+ is also designed around an essential feature: the capability to accommodate multiple sample sizes, a vital component for efficient chemistry upscaling. This unique versatility enables researchers to transition between various sample diameters, from the compact 8 mm to the substantial 14.5 mm, thus facilitating a 3.3 times expansion in active surface area. This adaptability provides a crucial platform for the development of groundbreaking materials and advanced battery systems. Furthermore, the ASC-T+ shares sample dimensions with our existing testing setups, ensuring seamless integration within our research portfolio.



ASC-T+ setup for multiple sample sizes



ASC-T+ Control Box