ACS Material Equipment Series

InSitu Pro™ AECH600S

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I. Product Composition

1) Main Unit

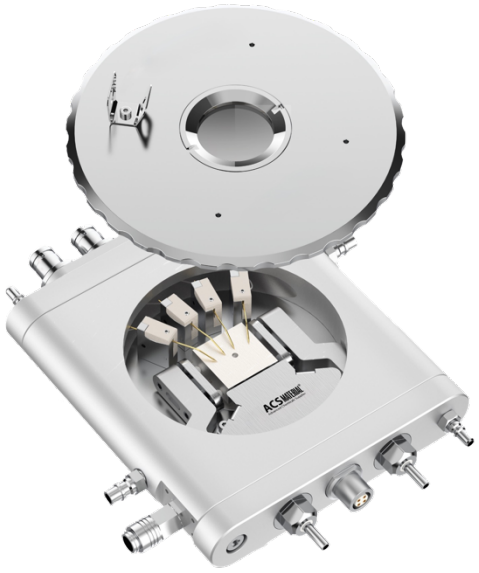

Photo of Electrical-Temperature Probing Stage

II. Product Features

InSitu Pro™ AECH600S is a product designed for studying the temperature-dependent electrical performance of samples. It can characterize the changes in the electrical properties of samples with temperature.

The product uses liquid nitrogen cooling and resistive heating to achieve precise temperature control within the range of -190 to 600°C. It can be integrated with other optical equipment (such as bridge circuit, source meter (SMU), multimeter) for in-situ temperature-variable testing.

The product needs to be used with a temperature controller and an optional cooling controller. The accompanying temperature control software on the host computer facilitates temperature setting and data acquisition. The provided LabVIEW VIs/C# SDK allows customers to perform customized programming.

III. Product Specifications

<table>
<tr><td colspan="6">InSitu Pro™ Electrical-Temperature Probing Stage- AECH600S</td></tr>
<tr><td>SKU#</td><td colspan="5">EIPECH001</td></tr>
<tr><td rowspan="10">Temperature Control Module</td><td>Cooling And Heating Method</td><td>Liquid nitrogen cooling, resistive heating</td><td rowspan="5">Structural Properties</td><td>Sample Stage Size</td><td>23x23mm *</td></tr>
<tr><td>Temperature Control Range</td><td>-190 ~ 600°C *</td><td>Sample Stage Material</td><td>Silver *</td></tr>
<tr><td>Temperature Stability</td><td>±0.1°C (-190 ~ -120 °C: ±0.3°C)</td><td>Overall Dimensions</td><td>116x110x25mm *</td></tr>
<tr><td>Temperature Resolution</td><td>0.1°C</td><td>Sample Chamber Height</td><td>6mm *</td></tr>
<tr><td rowspan="2">Heating and Cooling Rate</td><td rowspan="2">0~30°C /min (Programmable point control or segmented control), up to 150°C/min</td><td>Chamber</td><td>Air-tight * Upgradeable vacuum</td></tr>
<tr><td>Cooling the Casing</td><td>Circulating Water</td></tr>
<tr><td>Temperature Control Method</td><td>PID</td><td rowspan="5">Electrical Properties (continued)</td><td>Probe</td><td>2x/4x Magnetic probe, manual control*</td></tr>
<tr><td>Temperature Sensor</td><td>PT100</td><td>Probe Connector Type</td><td>BNC interfaces x 4 *</td></tr>
<tr><td rowspan="4">Optical Properties</td><td>Optical Path</td><td>Reflective optical path * (optional transmissive optical path)</td><td rowspan="2">Sample Table Potential</td><td rowspan="2">Default electrical suspension *, optional electrical grounding</td></tr>
<tr><td>Window Material</td><td>Quartz glass (manually removable and replaceable) *</td></tr>
<tr><td>Window Dimensions</td><td>Ø25mm *</td><td rowspan="2">Basic Configuration</td><td colspan="2" rowspan="2">1 main unit, 1 temperature controller, 1 cooling controller (low-temperature configuration), 1 liquid nitrogen tank (low-temperature configuration), 1 water circulation system, and 1 temperature control software.</td></tr>
<tr><td>Objective Working Distance</td><td>7mm *</td></tr>
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	Light Transmission Aperture	Default no light transmission * (optional with light transmission aperture)	Optional	Computer main unit / installation bracket / vacuum system / custom temperature control software.
	Window Defrosting	Airflow defrosting at sub-zero temperatures		
Note	All parameters above are default. Items marked with * are customizable.			