

ACS Material Equipment Series

InSitu ProTM

ACH600S-T/ACH400SV-T

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Contact Information:

ACS Material, LLC

Address: 959 E Walnut St., Suite 100

Pasadena, CA 91106, USA

Phone: (866) 227-0656

Fax: (781) 518-0284

E-Mail: contact@acsmaterial.com

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I. Product Composition

1) Main Unit



Photo of ACH400SV-T

II. Product Features

InSitu Pro™ ACH600S-T and ACH400SV-T are designed for studying the temperature-dependent optical performance of samples. It can characterize the changes in the optical 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 supports multi-mode precise temperature control including fixed-point, slope, and programmable segment modes. The sample stage supports reflection/transmission options; twist-off top cover design allows easy sample loading and removal. Its ultra-thin body design is compatible with compact optical instruments, such as Horiba Raman spectrometers. 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

InSitu Pro [™] Optical Heating and Cooling Stage				
Model #	ACH600S-T	ACH400SV-T		
SKU#	EICH60ST	EICH4SVT		
Heating/ Cooling Method	Liquid nitrogen cooli	Liquid nitrogen cooling, Resistive heating		
Temperature Range	-190° C ~ 600° C	-190° C∼400° C		
Temperature Stability	±0.1°C			
Temperature Control Rate	Maximum heating rate: 150 °C/min; Maximum cooling rate: 40 °C/min			
Sample Stage	Silver; 23 x 23 mm			
Optical Path	Reflection/Transmission (φ2 mm light-transmitting hole)			
Top Window Size	ф25 х 1 mm			
Bottom Window Size	$\phi 10 \times 1 \text{ mm}$ (optional for transmission optical path)			

Window Material	quartz glass (transmission wavelength range: 220 nm–2500 nm), manually removable and replaceable	
Window Defogging	Equipped with a gas-blowing bracket; liquid nitrogen exhaust used for defogging at low temperatures	
Dist. From Top Window to Sample Stage Surface	4.8 mm	
Chamber Height	3.8 mm	
Chamber	Air	Vacuum
Dimensions	86 x 100 x 21.5 mm	86 x 100 x 21.5 (Excluding bellows)
New Weight	0.5kg	0.6kg
Basic Configuration	1 x main unit, 1 x temperature controller, 1 x cooling controller, 1 x liquid nitrogen tank, 1 x water circulation system, 1 x software	

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