ACS Material Equipment Series

InSitu Pro™

ACH600S/ACH400SV

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I. Product Composition

1) Main Unit

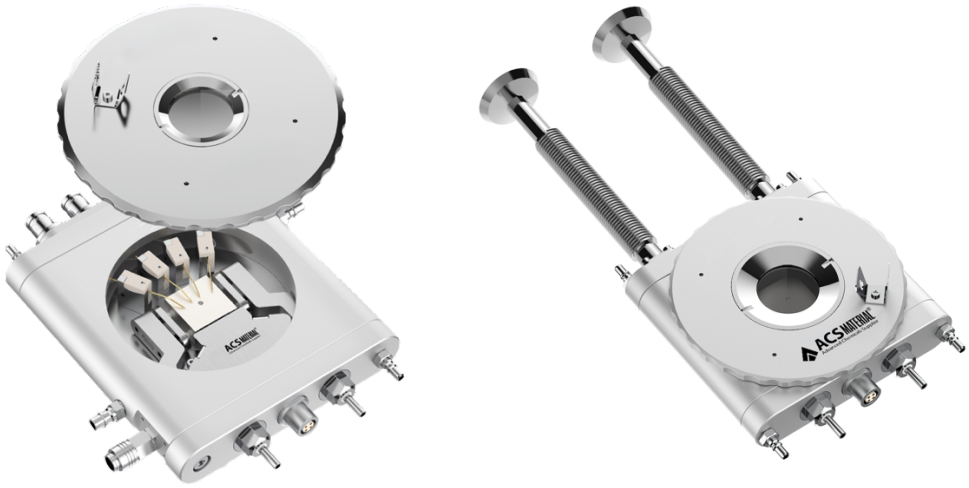

Photo of ACH600S and ACH400SV

II. Product Features

InSitu Pro™ ACH600S and ACH400SV 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℃. 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	ACH400SV
SKU#	EICH600S	EICH40SV
Heating/ Cooling Method	Liquid nitrogen cooling, Resistive heating	
Temperature Range	-190° C ~ 600° C	-190° C~400° C
Temperature Stability	±0.1℃	
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	ϕ25 x 1 mm	
Bottom Window Size	ϕ10 × 1 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	4.5 mm	
Chamber Height	3.5 mm	
Chamber	Air	Vacuum
Dimensions	91 x 97 x 24 mm	91 x 97 x 24 (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	