

Stage and Controller

- Working temperature from -196°C to $+125^{\circ}\text{C}$
- Controlled heating and cooling rates
- Programmable profile function, allowing several ramping and holding steps
- High purity silver heating / cooling block for superior thermal conductivity
- 100 Ohm platinum resistor sensor for temperature monitoring & control (DIN Class A to 0.1°C)
- Sample chamber vacuum tight to 10^{-3} mbar
- Port for direct measurement of chamber vacuum

Optical System Imaging Station

- LED lamp with an efficient, custom-designed electronics module and lifetime of more than 60,000 hours
- Articulated head for ease of sample loading
- Fewer lenses than compound microscopes, for clearer images
- Polarising lens with analyser
- Long working distance condenser

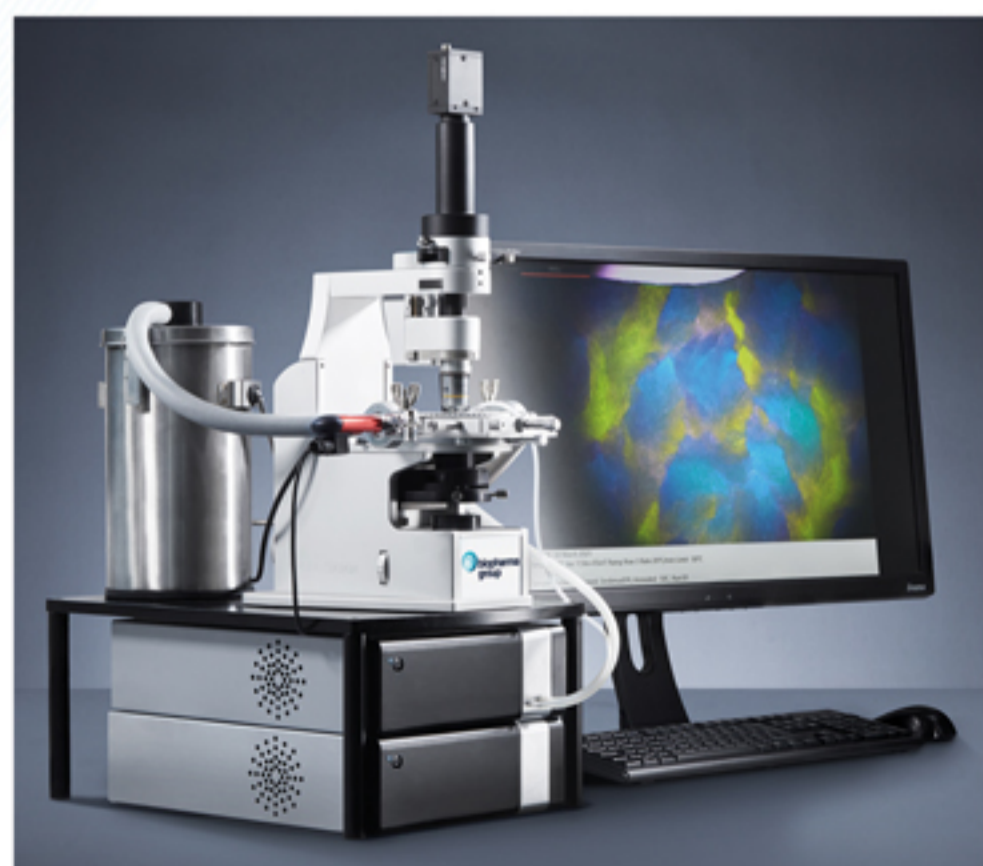
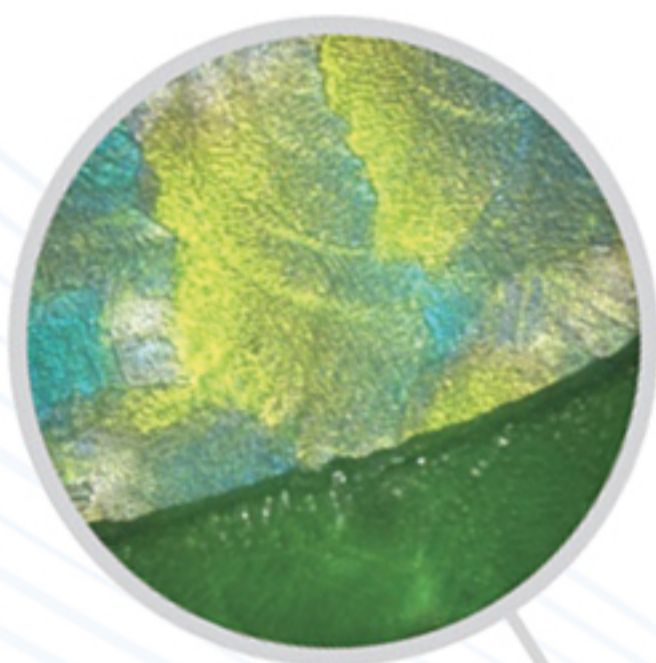
Real-Time Digital Video and Measurement

Capture up to 80Gb information

Compress gallery images into various picture formats or movies with variable compression codec and playback frame rate

High performance digital USB camera :

- High Quantum efficiency: sensitivity for detailed imaging
- High-resolution, 3.2 mega pixel sensor
- High-speed readout: previewing and focusing in real time
- Flexible exposure control with optimal integration over a wide range of light levels



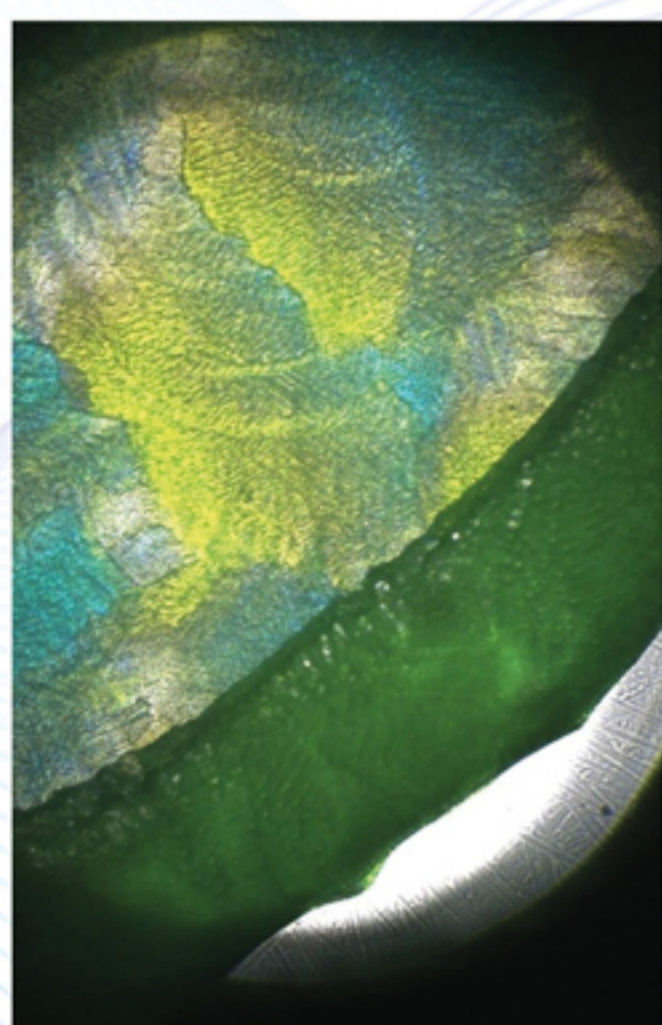
LYOSTAT5

TECHNICAL SPECIFICATION



Liquid Nitrogen Cooling System

- Automatic twin-pump cooling system including 2L dewar and flexible insulated tubing
- Twin pumps for faster cooling
- Direct injection of the coolant into the silver block



Software

- Displays live temperature and stage pressure, active ramp information
- User has full control over temperature programmer USB link to PC
- Online temperature and pressure plot can be viewed, saved, and exported to third part applications such as Excel
- Temperature profile of several ramping and holding steps can be easily created within the software
- 21 CFR Part 11 compliant software available as an option



Vacuum System

Oerlikon Leybold D2.5E rotary vane vacuum pump with pumping speeds of 3.2m³/h

Exhaust filter, all connectors and clamps

Pfeiffer Pirani vacuum gauge features pressure range from atmospheric to 10⁻⁴ mBar (7.6x10⁻⁵mTorr)

Optimal motorised vacuum control system:

- Software-controlled motorized valve controls chamber pressure
- Enables close investigation of the effects of pressure on sample collapse
- Chamber pressure displayed in mBar and Pa
- Pressure plotted with temperature against time and can be saved for later analysis



To request more details or discuss your requirements further, please contact our specialists at www.biopharmagroupcdmo.com