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# VAHEAT

## DYNAMIC THERMAL CONTROL

Precise and fast temperature control for high-resolution optical studies.



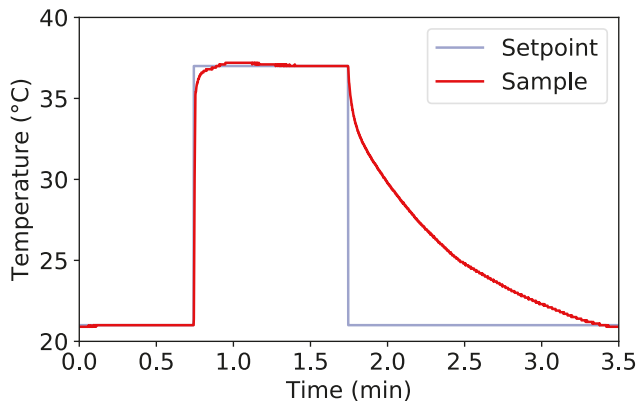
INTERFERENCE  
HIGH SENSITIVITY MICROSCOPY



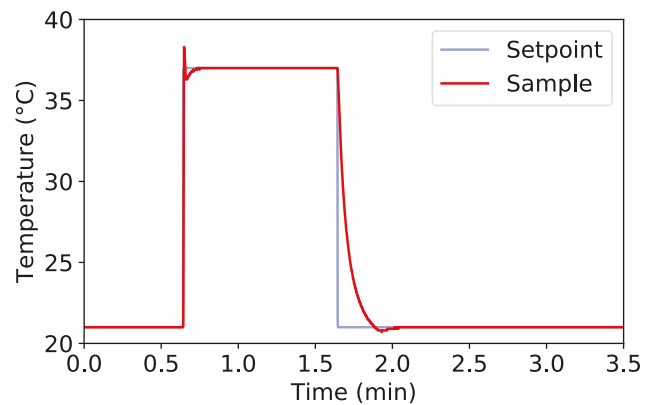
 [interference.com](http://interference.com)

## Fast Temperature Response

The feedback driven heating element directly integrated into the smart substrate enables extremely fast temperature variations with up to 100 °C/s providing unprecedented temperature stability over short and long time scales.



Temperature response of a Smart Substrate attached to a thermal load of 200 µl water.

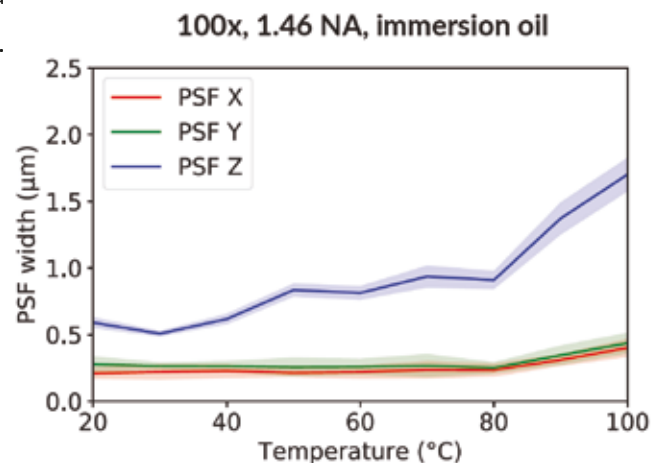


Temperature response a Smart Substrate without additional heat load.

## Excellent Image Quality

The Point-Spread-Function (PSF) represents the image of a point-like object acquired with a microscope. Its geometry is a direct measure for the image quality.

- No image alteration for air objectives for temperatures ranging from 20 °C to 100 °C
- No change in image quality for immersion and air objectives between 20°C and 80°C
- Minimal axial PSF size increase (30%) for immersion objectives



## Key Features



Extended temperature range up to 200 °C



Heating rates up to 100 °C/s



Relative precision of 0.1 °C



Full remote control via USB



Four heating modes



Compatible with most microscopes