ThermoMaster

Technical Note 03

InSlide Temperature Control for Ionovation Explorer

All biochemical and biophysical interactions are temperature dependent. Thus, many experiments in membrane biophysics benefit from an accurate temperature control and monitoring and open a new range of scientific insights.

- Run your experiment under physiological conditions
- Study kinetics at different temperatures
- Adapt your experiment to the melting temperature of various lipid mixtures
- Study the temperature dependence of protein-protein-, protein-ligand- or protein-lipid-interactions
- Slow down fast activation kinetics of ion channels
- Monitor changes in the diffusion time of membrane components

The Ionovation ThermoMaster offers full temperature control of your bilayer experiments with ease, reproducibility, and complete documentation. Just place the dedicated proprietary Thermo Slide into the Ionovation Explorer, put the Thermocoupler Frame and the temperature sensor on the slide, select your temperature protocol and start your experiment.

General Features

- Temperature range ca. 10°C – 40°C, 0.1°C resolution
- Proprietary, high heat conducting Thermo Slides
- Low noise temperature monitoring in immediate proximity to the membrane
- Live temperature recording
- Automated temperature protocol options
- Control via patchmaster script
- Simultaneous use with the Ionovation Explorer perfusion unit

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