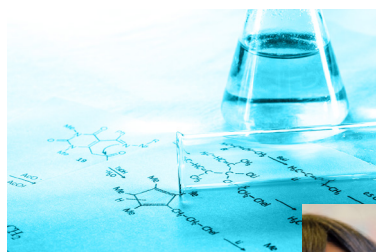


Thermo Scientific NMR Reaction Monitoring Accessory

Add the dimension of time to chemistry teaching

The reaction monitoring accessory for Thermo Scientific™ picoSpin™ 45 and picoSpin 80 benchtop NMR spectrometers brings a new dimension to your chemistry classroom. This low-cost accessory facilitates an online flow configuration with the benchtop NMR spectrometer, enabling students to experience chemical reactions as they occur.



Adding a reaction monitoring accessory to the picoSpin 45 or the picoSpin 80 NMR spectrometer gives your students valuable hands-on experience of chemical reaction mechanisms, kinetics, thermodynamics, and other physical organic properties to complement the core of your undergraduate chemistry curriculum.

The instrument's fluid capillary system is perfectly suited to an online flow configuration; no need for fragile NMR tubes and messy preparation when the time comes for the next timed sampling of the reaction mixture.

Watch the chemical reaction unfold before your eyes as NMR data is automatically exported, processed, and analyzed, to produce kinetic curves plotted in real-time. Gain insight to the reaction pathway and mechanisms involved in a way that the classroom cannot provide alone.



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Product Specifications

Valve Assembly

- VICI switching valve model: C22Z-2184
 - 4-port 2-position
 - Maximum pressure: 250 psi
 - Universal actuator
 - 24 DC power supply
 - 110/220 VAC, 50/60 Hz, 60 Watts
- Spectrometer communications cable (6')
- Idex Relief Valve model: U-456
 - 100 psi (7 bar) actuation pressure
 - Automatic reset after actuation
- Tubing
 - 1/16" o.d., 0.02" i.d. PTFE
 - Extra tubing included for customized lengths
- Connectors
 - 1/16" tube size
 - Material: PEEK
 - Extra nuts and ferrules included
- Physical
 - Dimensions: 9" H x 5" W x 11" D
(23 cm x 13 cm x 28 cm)
 - Weight: 2.9 lbs (1.3 kg)
 - Distance between reaction chemical reaction vessel and spectrometer: 23" (58 cm) to 46" (91 cm)

Compatible with picoSpin 45
or 80 NMR spectrometers only



Software

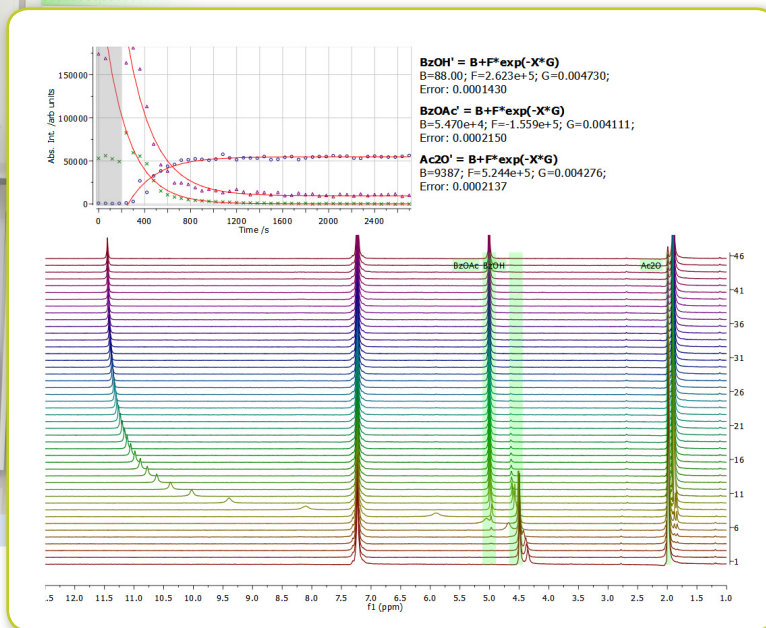
- Requires software version 0.9.3 on the picoSpin NMR Spectrometer
- Mestrelab Mnova™ Reaction Monitoring add-on included

Documentation

- Lesson Plan
- Set-up instructions

Optional Pump

- Positive displacement (piston) style
- Single head design with stepper motor drive
- PEEK fluid path
- 1/16" o.d. tubing inlet and outlet
- Flow Rate: up to 5 mL/min.
- Pressure: 100 psi over flow range
- External Power Supply
115–260 VAC/50–60 Hz



www.thermoscientific.com/picospin

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