

μ RC

micro Reaction Calorimeter



Titration
calorimetry,
isothermal
calorimetry
and differential
scanning
calorimetry
- all in one
instrument

FEATURES

- Low volume disposable cells for solids, liquids and mixtures
- High sensitivity/wide dynamic range - biologicals to explosives
- Quick response mode for kinetic applications
- Pressure measurement up to 10 bar for monitoring catalysis/hydrogenation
- Solid addition for accurate dissolution studies



APPLICATIONS

- ☐ Heat of reaction
- ☐ Heat of dissolution
- ☐ Heat of crystallisation
- ☐ Hydration studies
- ☐ Thermal stability
- ☐ Heat capacity determination
- ☐ Reaction kinetics
- ☐ Excipient compatibility
- ☐ Binding constants
- ☐ Food spoilage
- ☐ Microbial growth
- ☐ Protein denaturation

NOVEL RAPID SENSITIVE VERSATILE INEXPENSIVE

thermal hazard technology

μRC

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The μRC is available in two specifications; standard and high sensitivity



Baseline Noise	From 0.5μW RMS [high]
	From 5μW [standard]
Dynamic Range	0.5μW to 10mW [high]
	5μW to 300mW [standard]
Temperature Range	-10°C to 200°C
Standard Modes of Operation	Isothermal
	Step Isothermal
	Titration
	Scanning
Optional Modes	Pressure – pressurise cell up to 10bar
	Solid Addition Accessory
Scanning Rate	Up to 2°C/min
Isothermal Stability	+/- 0.0001°C over extended time period
Cell Volume	1.5 ml
Cell Type	Removable glass vial
Time Constant	30-40 seconds [high]
	20 seconds [standard]
Injection Volume	1 to 250 μl
Temperature Control	Peltier based (no external cooling)
Stirring Speed	0 – 400 rpm
Measurement Principle	Power compensation
Connection to PC	via USB cable
Footprint (width x depth x height)	15 x 40 x 35 cm



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