

# The micro reaction calorimeter $\mu$ RC



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

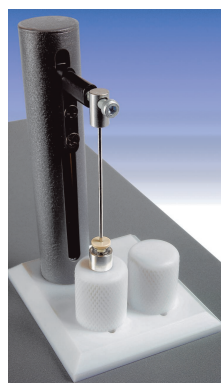
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NOVEL RAPID SENSITIVE VERSATILE INEXPENSIVE

# The micro reaction calorimeter $\mu$ RC



The  $\mu$ RC is available in two specifications; standard and high sensitivity



Baseline Noise	From 0.5 $\mu$ W RMS [high] From 5 $\mu$ W [standard]
Dynamic Range	0.5 $\mu$ W to 10mW [high] 5 $\mu$ W 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 $\mu$ l
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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