

Differential Scanning Calorimetry (DSC)



Brand: PerkinElmer

Model: DSC 8000

Custodian: Nij kramol

Location: K652 Room, 6th Floor, Chaloeprakiet Building, Phyathai Campus

Calorimetric Performance		
Dynamic range	± 1300 mW	Allows applications with high energy thermal transitions to be measured
Accuracy	$< \pm 0.2\%$	
Precision	$< \pm 0.03\%$	
Indium height/width (mW/ $^{\circ}$ C)	18.4	Indium melting peak height/width at half-height. 1 mg Indium, 10 C/min, nitrogen purge. No mathematical treatment to the data or correction applied.
Indium melting time (sec)	2.3	The time between Indium melting peak onset and maximum

Temperature Performance		
Range	-180°C to 750°C	Depend on cooling system
Accuracy	±0.05 C	Using on-set temperatures of Indium melting peak
Precision	±0.008 C	
Data points/sec	33	
Controlled heating rates	0.01 to 300°C /min	
Controlled cooling rates	0.01 to 150°C /min	Depends on cooling accessory installed and cooling range selected
	10°C/min to 22°C 20°C/min to 35°C 50°C/min to 70°C 100°C/min to 125°C	Ambient coolant - nitrogen purge
	10°C/min to -170°C 50°C/min to -165°C 100°C/min to -140°C	Option: Liquid N2 coolant – helium purge
Typical applications for DSC 8000	<ul style="list-style-type: none"> • Isothermal kinetics studies • UV curing in polymers • Process and product improvement • Demanding industrial and academic research 	