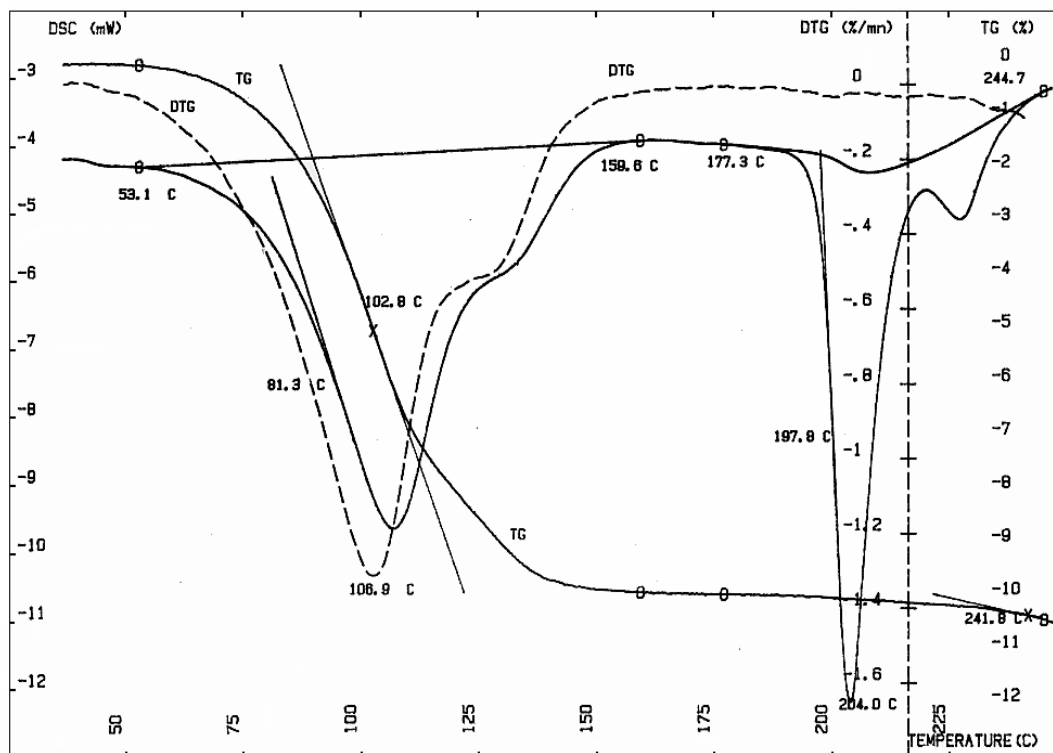


Analysis of hydrochloride dihydrate salt



Experimental

Sample : hydrochloride dihydrate salt.
 Sample mass : 10.4 mg.
 The temperature is programmed from ambient up to 230°C at 5 K.min⁻¹.

Instrument

Sensys evo TG-DSC
 -120 to 830°C



Results

The DSC curve shows 2 endotherms, the first one around 100°C and the second one around 200°C. On the TG and DTG curves, a mass loss of 9.88% can be observed at 100°C due to water vaporization. The mass is constant during the second DSC peak, corresponding to the sample melting.

The integration of the first peak gives an energy of 554 mcal for the whole sample. This is simultaneous to a mass loss of 9.88% (1.03mg) corresponding to water vaporisation.

The energy relative to the mass variation is then : $554 \text{ mcal} / 1.03 \text{ mg} = 539 \text{ cal.g}^{-1}$.
 The literature gives the latent heat of vaporization of water : 540 cal/g.