

SC4

Thermal Analysis and its Benefits in the Pharmaceutical and Related Industries

Willy Surer², Svenia Goth¹

¹Perkin-Elmer (Schweiz) AG, Hünenberg, CH

²LAB PLUS AG, Jona, CH

Differential Scanning Calorimetry (DSC) provides a useful means of characterizing the thermal and physical properties of pharmaceutical materials.

Applications of DSC in the pharmaceutical industry include: freeze-drying or lyophilization based on detection of the glass transition at subambient temperatures, crystallization, aqueous denaturation studies, characterization of lipids, drug integrity purity analysis, migration of impurities to tablet coating surface for cosmetic factors and interactions of active drugs and interactions with excipients, etc.