TOPEM® is a novel temperature modulated DSC technique where a non-periodic stochastic temperature perturbation is superimposed to a conventional DSC temperature program. Using an advanced evaluation procedure both, the quasi static material properties as well as the frequency dependency of thermal processes can be simultaneously analyzed in one single measurement. Using quasi-static properties improves the separation possibilities of temperature modulated DSC considerably. The frequency dependence of thermal processes can be used to get more insight in molecular dynamics and allows an easier identification of thermal events. These possibilities are shown in typical examples.