

## **Experience with thermal analysis on acrylic compounds**

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The premature polymerization of acrylic acid was investigated by means of differential scanning calorimetry (DSC) and Calvet calorimetry (C80) experiments under different testing conditions, such as gas atmosphere, i.e. air or inert gas, type of crucible, i.e. with and without heat exchange elements, and crucible construction material, i.e. stainless steel, gold and glass surface.

Surprisingly strong variations of the thermal signals were observed, not only regarding onset temperature but also regarding peak shape and sequence, which are indicating different reaction regimes.

In the presentation the results of these measurements are shown and several influencing factors, i.e. impurities, stabilizers, oxygen content are discussed.