

Thermal Runaway Reaction Studies

L. Cisneros, W.R. Rogers, and M.S. Mannan
Mary Kay O'Connor Process Safety Center
Chemical Engineering Department
Texas A&M University System

Abstract

We will discuss reaction profiles and heat generation behavior for the purposes of early detection of potential runaway systems and for rapid testing of substances in industry for safe processes and compatible storage. We present experimental results of exothermic reaction tests using the Reactive System Screening Tool (RSST) and Automatic Pressure Tracking Adiabatic Calorimeter (APTAC) in the Mary Kay O'Connor Process Safety Center Laboratory at Texas A&M University.