

Screening DSC : Analysis of Propergol

INTRODUCTION

The thermal decomposition of Propergol was studied in a tightly closed high pressure crucible and in an open crucible with milligram-scale samples.

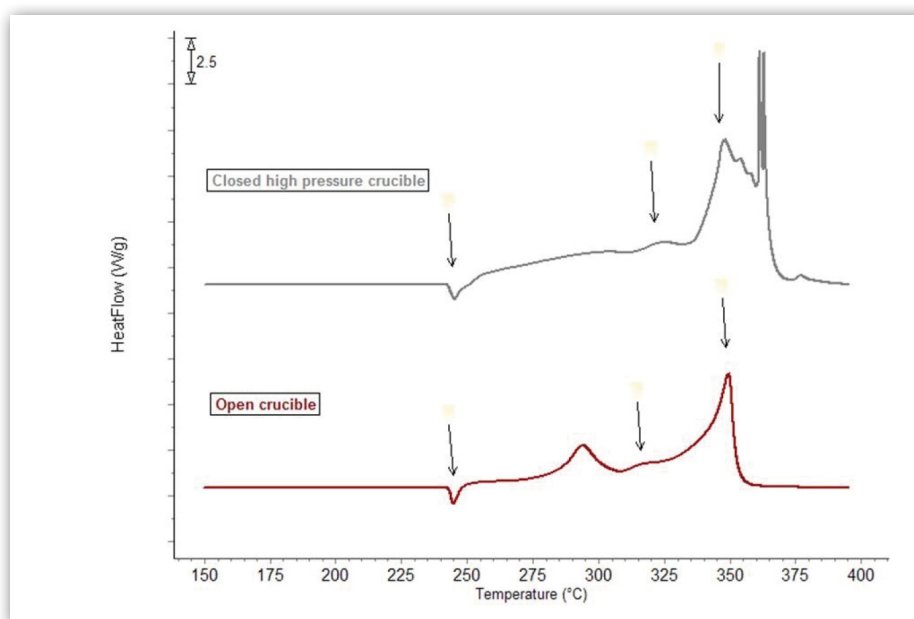
EXPERIMENT

Both experiments were run at a scanning rate of 3°C/min, under inert gas conditions.

RESULTS AND CONCLUSION

It was observed that if the pressure rises during decomposition (closed crucibles), both total heat and reaction schemes are different. However, three peaks remain at similar positions and shape (cf. arrows), which was confirmed by built-in deconvolution module of Calisto data treatment software.

The flexibility of Setline DSC gives fast insights into the behavior of chemicals under varying gaseous conditions (ex: ambient pressure vs. high pressure, oxidizing vs. inert conditions, etc...).



INSTRUMENT

SETLINE DSC / DSC+

-170 to 700°C



EASY TO USE WITH ROBUST SENSOR TECHNOLOGY
ensuring quality, consistent and reliable data

AVAILABLE WITH HIGH PRESSURE CRUCIBLES
up to 500 bar at 600°C

REASONABLY PRICED INSTRUMENT & SENSOR
for easy, cost effective replacement

LOWER COST OF OWNERSHIP
through simplified maintenance and a Replacement Parts Guarantee

TECHNICAL & APPLICATION SUPPORT
for fast expert help with any questions

CALISTO 2.0 EXCLUSIVE SOFTWARE
for intuitive and easy data handling