

Accepted Manuscript

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Authors: Ahmed K. Hussein, Svatopluk Zeman, Ahmed Elbeih



PII: S0040-6031(18)30003-0
DOI: <https://doi.org/10.1016/j.tca.2018.01.003>
Reference: TCA 77912

To appear in: *Thermochimica Acta*

Received date: 29-11-2017
Revised date: 3-1-2018
Accepted date: 4-1-2018

Please cite this article as: Ahmed K.Hussein, Svatopluk Zeman, Ahmed Elbeih, Thermo-analytical study of glycidyl azide polymer and its effect on different cyclic nitramines, *Thermochimica Acta* <https://doi.org/10.1016/j.tca.2018.01.003>

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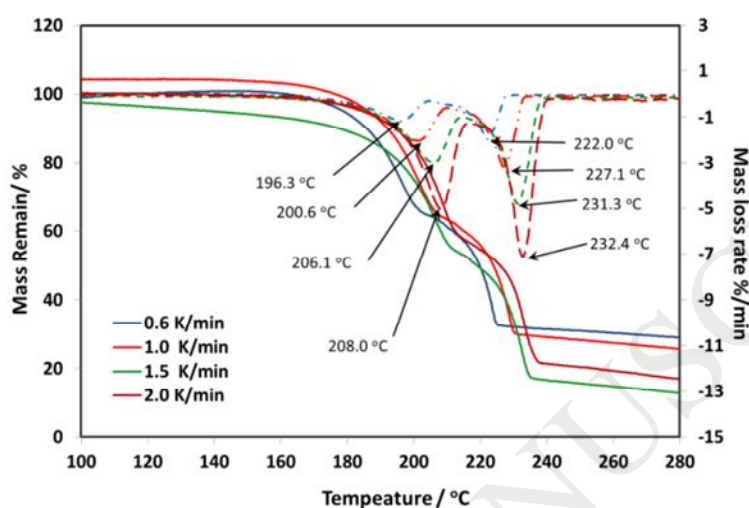
Thermo-analytical study of glycidyl azide polymer and its effect on different cyclic nitramines

Ahmed K. HUSSEIN¹, Svatopluk ZEMAN¹, Ahmed ELBEIH²

¹ Institute of Energetic Materials, Faculty of Chemical Technology, University of Pardubice, Czech Rep.

² Military Technical College, Kobry Elkobbah, Cairo, Egypt

Graphical abstract



Non-isothermal TG/DTG of BCHMX/GAP sample at different heating rates.

Highlights

- Different PBXs based on GAP with five cyclic nitramines were prepared
- TG/DTG, DSC techniques were used.
- Thermal behavior and decomposition kinetics have been investigated.
- Interesting relation between activation energy and longest N-N bond.
- GAP has a significant effect on activation energies and reactivity

Abstract

In this work, glycidyl azide polymer (GAP) has been prepared and studied. In addition, a series of different plastic bonded explosive (PBXs) based on GAP were prepared using five cyclic nitramines, namely. 1,3,5-trinitro-1,3,5-triazinane (RDX) and β -1,3,5,7-tetranitro-

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