



Thermal, Spectral and Structural Studies on Dysprosium Carboxylates

Amit K. Agarawal

Department of chemistry, Agra College, Agra, **INDIA**

Email: akagarwal.chem@gmail.com

Accepted on 19th January 2018, Published online on 27th January 2018

ABSTRACT

The structural and thermal studies of carboxylates of dysprosium (palmitate and stearate) have been investigated by IR, X-Ray and TGA measurements. The IR spectra results shows that the fatty acid exist dimeric state through hydrogen bonding and these carboxylates possess partial ionic character. The X-Ray results confirmed the single layer structure of these carboxylates. The decomposition reaction has been found kinetically zero order and the value of energy of activation for the decomposition process found to be in the range of 7.68-18.45 Kcal mol⁻¹.

Keywords: Dysprosium carboxylates, IR spectra and thermal decomposition.
