

**SOLID STATE CHARACTERIZATION OF A POTENTIALLY ACTIVE
BENZOTHIAZOL DERIVATIVE**

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One of the most diffused analytical requirements in the development of small molecules of potential application in the human therapy, is the characterization of the crystalline state.

In this work, a detailed structural analysis of a pharmacologically active benzothiazol derivative has been carried out. Various batches obtained from different synthesis protocols have been analyzed, mostly by means of powder X-ray diffraction (PXRD) and differential scanning calorimetry (DSC) techniques. Differences in the crystalline properties of samples, emerged. In particular, the results showed a variation in the crystallographic features, such as, among other, changes in the cell dimensions.

This study resulted useful for both synthesis design and suitable formulation of the investigated substance.