

Poster Presentation

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Structure and thermal analysis of amino acids

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The twenty amino acids are chemical compounds having two functional groups (carboxyl:-COOH, amine:-NH₂) and an asymmetric carbon (except glycine). They are amphoteric and can exist as zwitterion. Because of the reactivity of amino acids (esterification, amidation, N-alkylation, N-arylation, protonation), and their conformation (aliphatic, aromatic) chemical, properties (acid, base, and / or hydroxylated, solubility), and physical properties (absorbance, NLO), our laboratory contribute to the study (synthesis and X ray single crystal structures) of new organic-inorganic hybrid compounds which allows to the development of materials with novel properties [1-3]. Our work is also based on the relationship between the thermal decomposition of amino acids and their chemical structures, dozens compounds were selected and the results of the DTA, TG and DTG thermal decomposition was performed by several methods. Diffraction results are used for the identification of degradation mechanisms of the chemical structure, the stability of the compound studied and the anticipation of possible syntheses of hybrid compounds.

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