SYNTHESYS, STRUCTURE AND *POST*-REACTION OF UGI BISAMIDES BASED ON PYRROLYL-CONTAINING ALDEHYDES

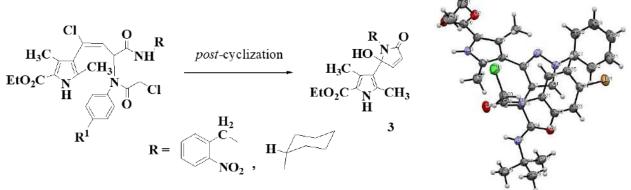
Larina¹ A.I., Ananieva ¹ V.V., Mikhedkina¹ E.I., Melnik¹ I.I., Tsygankov^{1,2} A.V., Chebanov² V.A.

¹National Technical University «Kharkiv Polytechnic Institute», Kharkiv

²Division of Functional Materials Chemistry, State Scientific Institution "Institute for Single Crystals" of NAS of Ukraine,

Today's classic multicomponent Ugi reaction is a powerful tool for creating libraries of organic substances, among which there may be new biologically active compounds and new components of functional materials. A special role is played by so-called *post*-Ugi reactions, which may include various *post*-cyclizations or subsequent modifications of functional groups and amide bonds in Ugi products [1].

The combination of pyrrole-containing α,β -unsaturated aldehydes **1**, **2** with convertible isocyanides, *para*-substituted anilines and monochloroacetic acid as the smallest building blocks in the four-component reaction leads to the formation of bisamides Ugi **I**, **II** and creates further favorable conditions for possible *post*-transformations **3**.



X-ray data of Ugi-bisamide II

References:

1. Beilstein J. Org. Chem. 2019, 15, 1281–1288, doi: 10.3762/bjoc.15.126.