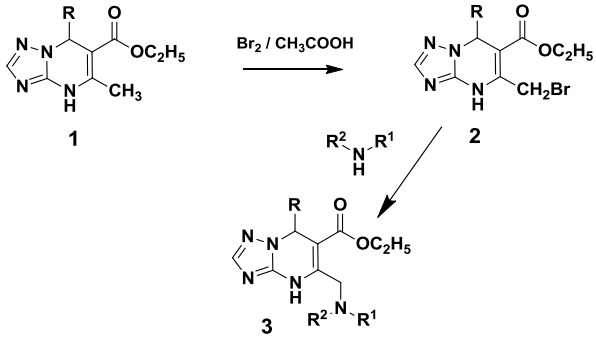
BROMOMETHYL DERIVATIVES OF 4,7-DIGIDRO-1,2,4-TRIAZOLO[1,5-A]PYRIMIDES AND THEIR MODIFICATION

Tkachenko Irina[1,2]
[1]State Scientific Institution "Institute for Single Crystals",
National Academy of Sciences of Ukraine, Kharkiv, Ukraine
[2]Kharkiv Forensic Science Center, Ministry of Internal Affairs of Ukraine,
Kharkiv, Ukraine
irulitka@gmail.com

Among dihydroazolopyrimidines with a nodal nitrogen atom there are many representatives with proven biological activity, which causes a constant interest in the synthesis of their new derivatives. Obtaining of low molecular weight dihydroazolopyrimidines allows them to be used as a basis for further directed drug design.

In order to obtain new biologically active compounds of the dihydroazolopyrimidine series with the lowest molecular weight, we used previously synthesized 4,7-dihydro-1,2,4-triazolo[1,5-a]pyrimidines **1** with exceptionally aliphatic substituents with detected biological activity [1] and their chemical functionalization by bromination was carried out. The bromomethyl derivatives **2** thus synthesized are highly reactive building blocks for obtaining a series of new organic compounds with a dihydroazolopyrimidine moiety by interacting with a variety of nucleophilic reagents. In particular, the reaction of compounds **2** with amines led to the aminomethyl derivatives **3**.



R = H, CH_3;
R^1, R^2=C_2H_5, Ar, C_5H_{10}

The structures of compounds 1-3 were confirmed by IR spectroscopy, NMR ^1H spectroscopy and mass spectroscopy.

1. Komykhov S.A., Tkachenko I.G., Musatov V.I., Diachkov M.V., Chebanov V.A., Desenko S.M. Arkivoc 2016, iv: 277-287.