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BENZOAZEPINOPYRAZOLES – A NEW HETEROCYCLIC SYSTEM

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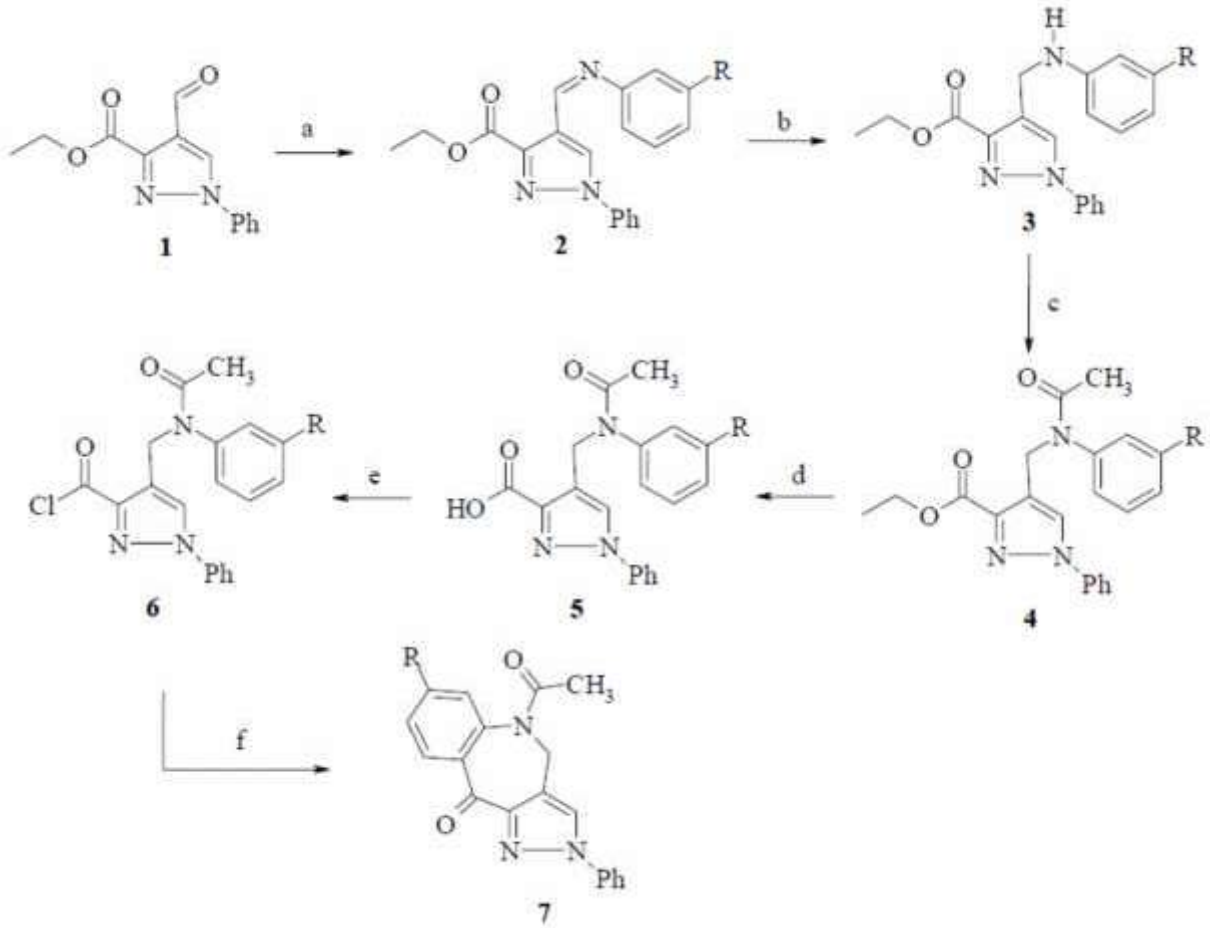
The development of methods for the synthesis of compounds based on multiheterocyclic nuclei has been intensively developed in recent decades. This is primarily due to the use of these systems as a building block for the construction of potential pharmaceutical candidates.

We have developed a way to construct condensed benzoazepinopyrazoles based on the previously described ethyl ester of 1-phenyl-4-formylpyrazole-3-carboxylic acid 1.

The structural scheme of the synthesis is as follows:



a - *m*-anilines, boiling toluene, 30 minutes

b - $NaBH_4$, alcohol, 20° C.

c - acetyl chloride, Et_3N, CH_2Cl_2, 50° C.

d - alcohol KOH, HCl.

e - $SOCl_2$, CH_2Cl_2.

f - nitrobenzene, $AlCl_3$, 5° - 40° C, 2 h.

The composition of the obtained compounds was reliably confirmed by elemental analysis and mass spectrometry, and the structure was established by NMR spectroscopy.