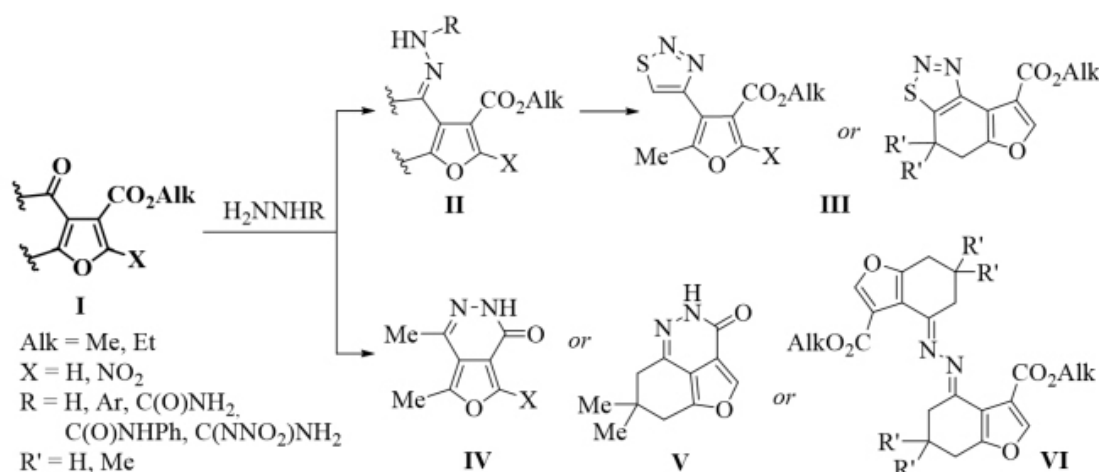


SYNTHESIS OF NEW HETEROCYCLIC COMPOUNDS BASED ON CARBONYL-CONTAINING FURAN-3-CARBOXYLATES

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Carbonyl-containing furan-3-carboxylates and their 2-nitro-substituted representatives **I** [1, 2] are promising substrates for functionalization in reactions with polynitrogen nucleophiles and the construction of new heterocycles [3].



It has been shown that reactions of furan-3-carboxylates and their 2-nitro-substituted representatives **I** with phenylhydrazines, semicarbazide, phenylsemicarbazide and nitroaminoguanidine lead to the production of a wide range of corresponding *E*-isomeric substituted hydrazones **II**.

Synthesized semicarbazones **II** under the conditions of the Hard-Mori reaction are converted into the original thiadiazole furancarboxylates **III**.

At the same time, based on the reactions of hydrazine with monocyclic furan-3-carboxylates **I**, pyridazinones **IV** are obtained, and with benzofuran carboxylates **I**, furocinnolinone **V** or bis-hydrazones **VI** are obtained. The products structure has been proven by a complex of physico-chemical methods.

Literature

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