the enzyme preparation "Macerobacillin G3X" and the growing needs for its use, it is economically feasible to develop and improve the production project of this enzyme preparation.

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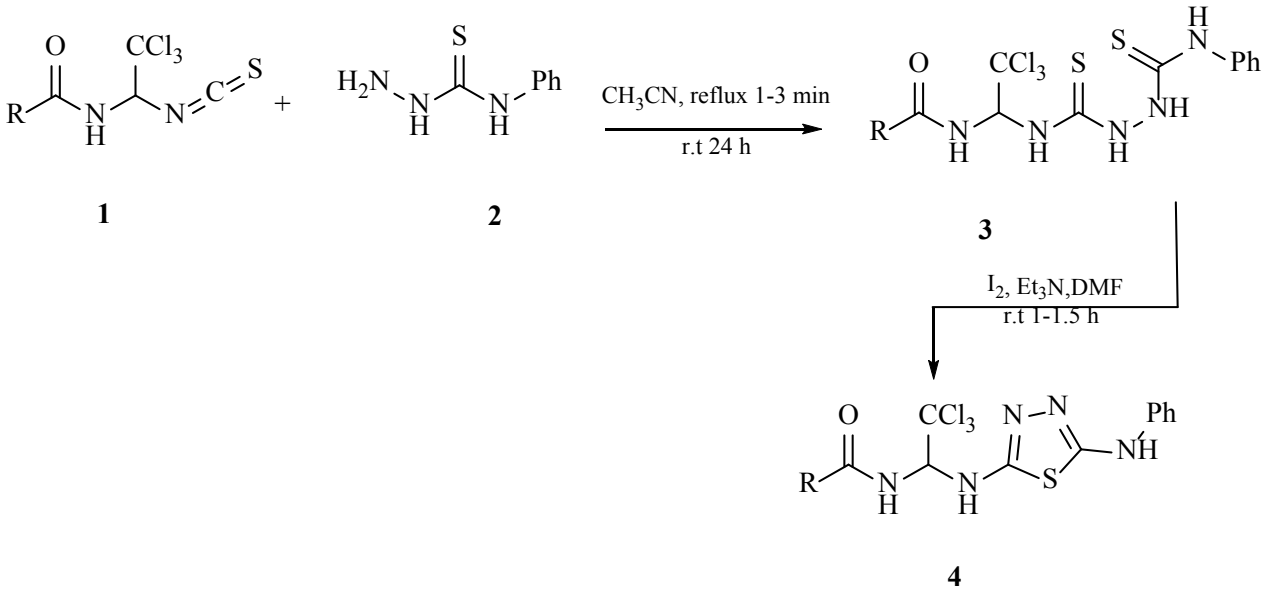
SYNTHESIS OF *N*-(2,2,2-TRICHLORO-1-((5-(ARYLAMINO)-1,3,4-THIADIAZOL-2-YL)AMINO)ETHYL)CARBOXAMIDES

1,3,4-Thiadiazole derivatives are of great importance for medicinal chemistry and pharmacy. Among them the compounds with antimicrobial [1, 3], antitumor [4], antiviral [5], antifungal, and other activities are known.

To prepare *N*-(2,2,2-trichloro-1-((5-(phenylamino)-1,3,4-thiadiazol-2-yl)amino)ethyl)carboxamides **4** (Scheme 1) we used *N*-(1-isothiocyanato-2,2,2-trichloroethyl)carboxamides**1** and *N*-phenylhydrazinecarboxamides**2** as starting reagents at the first stage of the reaction. The reaction was carried out in acetonitrile at reflux for 1-3 min, which led to the preparation of *N*-(2,2,2-trichloro-1-(2-(phenylcarbamatothioyl)hydrazine-1-carbothioamido)ethyl)carboxamides **3**, followed by their cyclization in DMF with iodine and triethylamine. The reaction results in the cleavage of atomic sulfur $^1/_8$ of S_8 and the formation of the target product **4**. The structures of the starting and target compounds were confirmed by ^{1}H and ^{13}C NMR spectroscopy.



1 **2** **3** **4**

*Scheme 1 – Synthesis of N-(2,2,2-trichloro-1-((5-(phenylamino)-1,3,4-thiadiazol-2-yl)amino)ethyl)carboxamides **4***

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