SYNTHESIS OF CHALCONES BASED ON 1-(2-AMINO-4-METHYLTHIAZOL-5-YL)ETHAN-1-ONE

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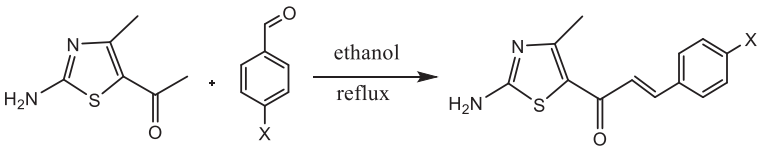
Despite the large-scale synthesis of drugs, the fight against infectious diseases is still not at the desired level.The reason for this is the large number and variety of pathogenic microorganisms that are resistant to existing drugs. Although the synthesized drugs have the necessary effect on existing microorganisms and weaken their resistance, some microorganisms develop adaptations to these drugs.For this reason, the long-term use of a number of drugs may be ineffective.For this reason, the preparation of drugs with properties that can have a long-term effect on microorganisms is very important.

Drugs containing a thiazole fragment are considered examples of effective fight against gram-positive bacteria. Chalcone derivatives containing a thiazole fragment are very important compounds due to their pharmacological properties. In addition to the thiazole fragment, the chalcone fragment is also a biologically active group, and since it is of great importance for most pharmaceutical preparations, thiazole-containing chalcones are more important. The synthesis of the mentioned compounds was carried out according to the following scheme:



X-H, -CH_3, -OCH_3

1-(2-amino-4-methylthiazol-5-yl)ethan-1-one and the corresponding aldehydes were synthesized from the condensation of 1-(2-amino-4-methylthiazol-5-yl)-3-(4-substituted)prop-2-en-1-one derivatives in ethanol in the presence of 10 % NaOH. Chalcones are important substances with high reactivity. Their subsequent transformations are diverse. Therefore, the subsequent transformations of the synthesized compounds are of practical importance.