PROSPECTS OF BIOLOGICALLY ACTIVE SUBSTANCES BASED ON AMINOHYDROXYBENZOIC ACIDS AND THIOUREA FRAGMENT

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Abstract. Thiourea derivatives have been widely studied and are used as the most important reagents for organic synthesis, as well as biologically active substances and drugs in medicine [1,2]. One of them is para-aminosalicylic acid, which is a pharmacological substance. Also, scientific research has been conducted on the fact that the compound formed with thiourea exhibits various properties. The article reviews the latest trends in the production and synthesis of biologically active substances . In addition, substances based on thiourea and para-aminosalicylic acid have been studied .

Keywords: para-aminosalicylic acid, thiourea **,** structure, biologically active substance, molecule.

Today, one of the urgent tasks of pharmaceutical chemistry is the synthesis of biologically active substances and the preparation of existing drugs or the isolation of new substances based on biologically active compounds. One of such substances is the pharmacological agent salicylic acid and its derivatives. Also, when thiourea is introduced into hydroxybenzoic acid, it can exhibit various properties. For hundreds of years, hydroxybenzoic acid and its derivatives have been used in various industries . The molecule has functional groups of pharmacological compounds, which remain important drugs used in practical medicine to this day. Many derivatives of hydroxybenzoic acids have a wide range of therapeutic effects and low toxicity. Therefore, existing substances based on hydroxybenzoic acids and new compounds based on them are convenient compounds for the study and synthesis [3-7].

been known to science for a very long time , today there is a growing interest in hydroxybenzoic acids and their derivatives, in particular para-aminosalicylic acid, which has chemical and biological activity. In addition, para-aminosalicylic acid is

widely used mainly in pharmaceuticals, biochemistry and many other fields. Currently, there is a lot of information about the synthesis, structure and biological properties of a number of substances based on para-aminosalicylic acid. However, it should be noted that the biological activity of para-aminosalicylic acid derivatives with various amino acids, and in particular with thiourea , still needs to be studied . The relevance of studying the properties of new derivatives of para-aminosalicylic acid leads to the emergence of new properties in molecules. Para-aminosalicylic acid derivatives, which include some pharmacological groups, often lead to new highs in terms of hemostatic activity.

molecules of known drugs or new compounds based on them. Typically, multi-step chemical reactions are carried out by synthesizing new active drugs from complex organic molecules. It is very important to obtain new compounds or compounds containing drugs based on biologically active compounds, including the development of new methods for the synthesis of substances based on thiourea and para-aminosalicylic acid and its isomers, which are planned to be synthesized. At the same time, much attention is paid to the pharmacological properties of the new biologically active substance. In addition, para-aminosalicylic acids, which have low toxic properties and high biologically active properties, are of great importance for the targeted identification of therapeutic agents.

Based on the above, promising work is envisaged in the field of synthesis of para-aminosalicylic acid and thiourea derivatives. Para-aminosalicylic acid is a versatile reagent for expanding the structure through linear hydrogen bond associations, both through carboxyl and amine functional groups. Taking into account the structural and biological diversity of para-aminosalicylic acid, the goal is to obtain compounds of these substances that have biological activity. Based on the goal, we synthesize compounds based on para-aminosalicylic acids and thiourea. Since the synthesized compounds contain active functional groups and atoms, the substances can be substances and ligands with good biological activity. Currently, the possibilities of synthesizing substances and their complexes based on quantum-chemical reactions are being studied. Based on this, it can be said that, in addition to the cheapness and widespread use of reagents, special attention should be paid to ensuring the synthesis of biologically active substances. The chemical reactions we consider do not require high pressure or high temperature. It should also be noted that since the reactions are simple and the synthesis steps are small, the reaction yield is likely to be acceptable.

In conclusion, we can say that new biologically active substances are synthesized by carrying out multi - stage chemical reactions, new drugs and complex organic preparations. Biologically active substances obtained on the basis of a thiourea fragment, including amino acids, are among the substances that mainly contain drug molecules. In addition, the goal is to synthesize organic salts based on the biologically active substance in question. The synthesis of organic salts with metals is also relevant, since metal ions play a key role in the human body. At the same time, biologically active substances containing a metal ion in their composition can create synergy, that is, the fragment of an organic molecule and the ion can enhance each other's strength.

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