

## REACTIVITY AND BIOLOGICAL ACTIVITY OF $\beta$ -AMINOPROPIOAMIDOXIMES DRUG-LIKE DERIVATIVES

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The interest of researchers in amidoximes is due to the possibility of their synthetic modification upon reactive groups NOH and NH<sub>2</sub>. The most numerous derivatives of amidoximes are acylation products at the oxygen atom of the NOH group and 1,2,4-oxadiazoles, as a result of subsequent dehydration with the participation of C=O and NH<sub>2</sub> fragments. In the most cases, amidoxime derivatives are stable. Data arrays on various biological activities of amidoximes have been obtained.

Our task in the field of new derivatives of  $\beta$ -aminopropioamidoximes was to study the reactivity of multifunctional substrates and to develop the new drugs with increased activity and lower toxicity than drugs used in the practice. A wide range of drug-like bases and hydrochlorides of O-aryl- $\beta$ -aminopropioamidoximes, 3-( $\beta$ -amino)ethyl-5-aryl-1,2,4-oxadiazoles and their rebuilt in accordance with the Boulton-Katritzky rearrangement, 2-aminospiropyrazolilammonium chlorides and benzoates, as well as linear O-sulfoaryl- $\beta$ -aminopropioamidoximes and 2-aminospiropyrazolilammonium chlorides and arylsulfonates as the products of arylsulfochlorination of  $\beta$ -aminopropioamidoximes have been synthesized. Synthesized new compounds have passed primary and in-depth pharmacological screening for the spectrum of biological activity (local anesthetic, anti-inflammatory, antipyretic, antidiabetic, antitubercular).

It was concluded that  $\beta$ -aminopropioamidoximes are key compounds in organic chemistry which have the potential for the study of fundamental issues of reactivity, structure, molecular rearrangements and the search of the new drugs. Among the studied libraries of  $\beta$ -aminopropioamidoxime derivatives, promising compounds were found. The data of their *in vitro* biological screening indicate that they can be used for the further *in vivo* testing of toxic properties on the animals and in the development of conditions, doses, new treatment regimens for a number of diseases.

### References

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