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IMPROVING THE METHODOLOGY OF TEACHING THE TOPIC OF NITROGENOUS ORGANIC COMPOUNDS IN HIGHER EDUCATION INSTITUTIONS ON THE BASIS OF A DIFFERENTIAL APPROACH

Movlonova Sohiba Abdikodirovna
Teacher of Tashkent State Pedagogical University named after Nizami.

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Abstract:

In nature, organic nitrogen-containing molecules play a variety of activities. They have a wide structural range, with nitrogen atoms forming simple functional groups or complex heterocyclic complexes, as well as different degrees of substitution and oxidation. Proteins, as well as most vitamins and hormones, are the most notable of these naturally occurring compounds. This article discusses in detail how to improve the methodology of teaching the topic of nitrogenous organic compounds in higher education on the basis of a differential approach.

Keywords: Organic compounds, differential approach, methodology, nitrogenous, higher education, institutions, improvement.

It is known that different methods should be used in the teaching of specific sciences, including chemistry. That is, if we teach a lesson in the usual way by simply reading or explaining the lecture, we will not achieve any results. This means that students have a low level of knowledge and a low level of interest. To prevent this, it is necessary to organize the lessons through interesting new methodologies. As an example, let's take the topic. Nitrogenous organic compounds. How to improve the methodology of teaching this topic in higher education institutions on the basis of a differential approach? First of all, the content of the topic must be fully understood by the teacher.

The essence of teaching organic chemistry comes from its content. Definitely inorganic. The chemical concepts studied in the chemistry course are also needed in the study of organic chemistry. The chemical reactions that take place in organic compounds show the specificity of its study. In inorganic chemistry, chemical reactions occur in a short period of time, while in organic chemistry processes take a long time. In organic chemistry, interdisciplinary relationships are of great importance. In particular, this connection is related to biology, molecular biology, genetics, physics, history of science, organic synthesis, chemistry. Industry, the philosophical foundations of chemistry. The theory of the structure of organic matter importance of study. The theory of the structure of organic matter is the theoretical basis of the whole course of chemistry.

Mineral and organic nitrogen molecules are the two types of nitrogen compounds. The ammonium ion (NH4+), which is created when ammonium salts are dissolved in water, is primarily responsible for the formation of mineral compounds. All organic nitrogen-containing molecules can be thought of as ammonia derivatives with one or more hydrogen atoms replaced with hydrocarbon radicals. -amino acids, as well as their peptide and protein derivatives, are of particular interest in this group.

As evidenced by the multiple prior sections describing these compounds, there is a great diversity of organic molecules that can be formed from carbon, hydrogen, and oxygen. Many additional options emerge when nitrogen is included as a possible element of these chemical configurations. The majority of nitrogen-containing compounds, on the other hand, are less relevant commercially, so we'll simply go through a handful of them here. Amines are made by replacing one, two, or all three hydrogens in ammonia with alkyl groups. Structures of methylamine, dimethylamine, and trimethylamine, which are primary, secondary, and tertiary amines, are some examples.

These methods to prepare students for e-learning, to motivate them to study independently, to test their knowledge such as Only then will it take more time to teach chemistry will not be done. If each student prepares independently for the next lesson at home using a computer if each lesson is conducted with a specific interest, enthusiasm and explained to the students. It is possible to observe a significant increase in the rate of mastering, efficiency. Item information. There is no need to spend time looking for them in books. When by whom from its discovery to its isotopes.

The structure of the molecules of the substances that make up the class of organic substances is from simple to complex. It is organic to place them in a way that helps them to learn effectively is the basis of the methodology of teaching chemistry. This is a conscious transfer of knowledge from organic chemistry is an important factor in mastering. Study of classes of organic substances in the following sequence recognized as the most convenient option of teaching organic chemistry. Methods of teaching organic chemistry and tools are no different from teaching

Inorganic Chemistry, but in the context of science, students. There are differences in the characteristics of training and development. Used in the teaching of organic chemistry chemical experiments take a long time, the technique and conditions of performance are strictly observed, the more complex devices are used. One of the main tasks of the use of organic reactions in education to show that the properties of organic matter depend on the structure of the bond.

The identification of the most abundant nitrogen species in water can provide additional information on the stages of water pollution, as ammonia is produced by the oxidation of organic nitrogen, nitrite is produced as an intermediate in the oxidation of ammonia, and finally nitrite is oxidized to nitrate. Nitrogen-containing flame retardants are one of the most environmentally friendly types of flame retardants since they produce little smoke and no dioxin or halogen by-products during burning. They also present several very important advantages over halogen-based compounds and red phosphorus owing to their chemistry, which is very similar to that of most polymers themselves. Polymeric materials, particularly nitrogen-based flame retardants, have also been demonstrated to be recyclable.

Brainstorming method: this technology allows students to actively participate in the learning process as well as diligently is a way to help them work and encourage it. In this method, it consists of 20-24 students. The idea given to the group should include knowledge of the topic. "Mental attack" can be carried out in two ways; the topic to be studied in the group by the first method as an independent study, and the teacher prepares ideas on this topic.

Students are solving an idea for a "brainstorming" on a topic participate. Criticism, no matter how the student responds to ideas will not be done. Each idea given by the teacher should include a lot of knowledge on the topic need Each student's answer to the problem is written by 2 excellent students in the group is performed. Feedback from students should be within the main topic. "Brainstorming".

At the end, all the correct answers are collected, arranged and announced to the students. A lesson in this way increase in efficiency, primarily at the level of demand for students' independent study of the subject. It was found that they appear only when they are read. Students use the Internet to perform a "brainstorming". They will have to read interesting chemistry and history of chemistry independently. If students do not pay enough attention to independent learning, they will spend a lot of time in class and complete the planned education. Activity of students in the implementation of "brainstorming" technology. As a result, the knowledge of the subject is well mastered.

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