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# USE OF INNOVATIVE TECHNOLOGIES IN THE CHEMISTRY OF COMPLEX COMPOUNDS

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**ABSTRACT:** The use of innovative methods in the chemistry of complex compounds is of great importance in the classroom. Today, the use of non-traditional, i.e. innovative technologies in teaching science more effectively than traditional education. In this process, the student becomes more active in the lesson. The rapid mastery of complex chemistry by students depends on the methods of teaching these disciplines. Therefore, methodologists are developing various methods to improve the effectiveness of lessons in teaching science, and also testing them in the process of teaching chemistry.

**Keywords**: innovative technology, complex compound, ligand, central atom, isomerism.

## INTRODUCTION

The science of complex chemistry differs from the sciences that provide ready-made knowledge, and also acts as a scientific science, since new teaching methods are created in the process of pedagogical work.

The science of complex chemistry develops in the process of experimentation and work in the laboratory of the teacher and student. Therefore, the study of the pedagogical experience of advanced teachers is one of the important factors in improving the educational process.

A complex compound is a compound that can exist independently in solution, followed by a ligand and a central atom. Complex compounds are complex compounds. They are divided into cationic, anionic and neutral complexes. The phenomenon of isomerism is as common in complex compounds as in organic substances, where two types of isomerism are structural and stereoisomerism. The following types of structural isomerism are distinguished: phase, coordination, hydrate, ionization, coordinated polymerization, binding, substitution, ligand isomerism, and stereoisomerism is divided into optical and geometric isomerism.

The following technologies can be used to teach the subject of isomerism in complex compounds.

Using the cluster method. This method is a "cluster" branching method.

structure

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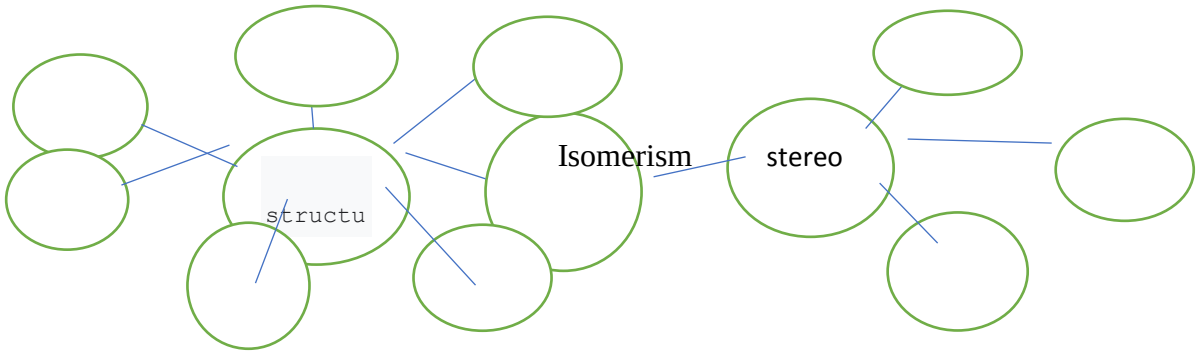


Application of the "Evaluation" method in the educational process (on the example of a 5-point assessment).

The teacher asks students to complete tasks in the form of tables in a short time. At the end of the task, the teacher announces the answers, and the students check themselves based on the exact answer and evaluate themselves based on the previously specified criteria. At the same time, students draw conclusions about the level of assimilation of the content of the topic through self-examination and evaluation.

| | |
|---|---|
| Test.<br>Who(s) were the first to synthesize isomers of octahedral coordination compounds?<br>A) A.D. Gelman<br>B) Chernyaev<br>C) L.N. Essen<br>D) A and B<br>(1 point) | Annotated dictionary<br>Explain conformational isomerism.<br><br>(1 point) |
| Problematic situation.<br>Are there similarities and differences between conformational isomerism and formal isomerism?<br>(1 point) | Creative work.<br>Compare coordination and hydrate isomerism.<br>(2 points) |

Fishbone method. A4 size handouts will be distributed to small groups based on the Fish Skeleton method. The groups develop the task in a short period of time and the members of the group are assessed.

Distribution by groups. Write down the initial and obtained formula of the product for obtaining complex compounds on the other side of the fish skeleton.

$AgNO_3$ $HgJ_2$ $CuCl_2$ KCN $CoCl_2$ $NiSO_4$

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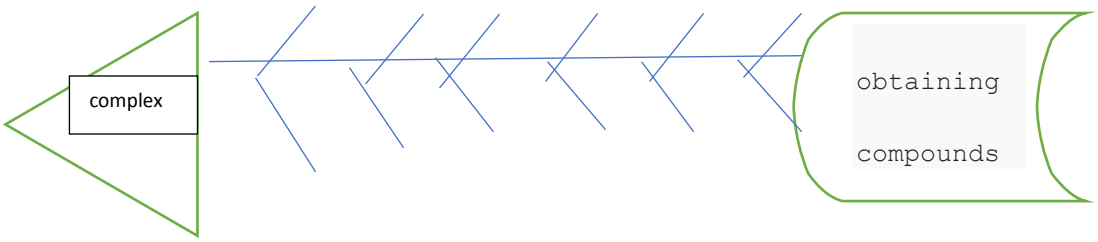


**References:**

1. Meliboeva G.S. Modern technologies in teaching chemistry. "Fergana", 2020.
2. Madumarov T., Kamoldinov M. Fundamentals of innovative pedagogical technologies and their application in the educational process. - T: Talkin, 2012.
3. Rakhmatullaev N.G., Omonov Kh.T., Mirkomilov Sh.M., Methods of teaching chemistry. Textbook. - T: Economics and Finance, 2013.