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COMPUTER OF SECTION OF SOLID PHYSICS TEACHING TECHNIQUES USING TECHNOLOGIES

Abstract: *This article focuses on the problems of increasing the effectiveness of teaching the section of solid physics using computer technology. As a result of the further development of this section, new topics and the content of relevant practical exercises have been developed. There are also practical ways to strengthen theoretical knowledge.*

Keywords: *Solids, crystals, technology, learning efficiency, methodology, practical training.*

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КОМПЬЮТЕР РАЗДЕЛА МЕТОДИКИ ПРЕПОДАВАНИЯ ФИЗИКИ ТВЕРДОГО ТЕЛА С ИСПОЛЬЗОВАНИЕМ ТЕХНОЛОГИЙ

Аннотация: *Данная статья посвящена проблемам повышения эффективности преподавания раздела физики твердого тела с использованием компьютерных технологий. В результате дальнейшего развития этого раздела были разработаны новые темы и содержание соответствующих практических упражнений. Существуют также практические способы укрепления теоретических знаний.*

Ключевые слова: *Твердые тела, кристаллы, технология, эффективность обучения, методика, практическое обучение***.**

Introduction. It is known from the historical development of any country that the rapid development of a country, its achievements and the well-

being of its people depend on the level of attention paid to the education and future of young people in that country. In this sense, the issue of youth in New Uzbekistan is one of the priorities of state policy. The future and prosperity of our country depends on how our children grow up to be human beings. Our main task is to create the necessary conditions for young people to show their potential. Consistent measures are being taken in our country to raise the education system to a new level, to improve the quality of teacher training on the basis of advanced international standards and to increase the level of higher education coverage. In the address of the President to the Oliy Majlis and the people on December 29, 2020, dedicated to 2021, the teaching of physics and foreign languages in 2021 has been identified as a priority. Emphasizing that physics is a fundamental science, the head of our state said that without a deep understanding of this science, it is impossible to achieve high results in today's demanding areas [1]. This means that not only the teaching of physics, but also the training of qualified technologists is a priority. It is no coincidence that our country pays great attention to technology. It is necessary to teach future technologists (students) not only to teach science itself in the process of training in higher education institutions, but also to keep abreast of science news and use it in educating young people. The training of technologists is mainly the responsibility of higher education institutions in the field of technology. Therefore, it is important to improve the teaching of physics in the technical higher education institution, to provide it with modern textbooks, as well as to develop recommendations for the effective organization of lessons.

Literature analysis and methodology. One of the urgent methodological issues is the creation of a methodology for the widespread introduction of modern pedagogical and information technologies in our country to raise the quality of the organization of the educational process in the education system to world standards. It is no secret that computers, which form the basis of modern information technology, now play an important role in all

spheres of society. Especially in the development of science and technology, the collection of information shows that processes such as processing and transmission can be carried out in a completely different way. The main role is played by computer equipment and other tools. In addition to speeding up the exchange of information, such an organization of work facilitates the processing and use of the search for the necessary information. It is well known that non-traditional interactive teaching methods are gaining popularity around the world. Over the last 50 years, with the development of computer technology, information technology has also reached its peak. The effective use of information technology in higher education depends on the quality of computer-aided teaching materials.

Discussion. Modern information technologies can be used in the educational process in the following forms:

-computer programs for teaching certain subjects;

-In the organization of group and frontal work of students, it is difficult for students to understand the field, especially in the textbooks of physics in the field of solid state physics.

Solutions to solid-state physics can be supplemented with Computer Modeling and Virtual Labs. Laboratories of solid state physics online using computer technology allow students to better understand the topic.

In recent years, electronic versions of physics textbooks have been developed. Modern technology allows students to model physical processes. [2]

Results. When modern technology is used in physics lessons, it enables students to think creatively, to analyze the results of work, to differentiate the content of teaching and individualize knowledge, to teach students to model knowledge and independence, different learning. learns to use complex tools, to check their knowledge with the help of a computer, to identify errors and correct them.

Conclusion. If the learning process is organized using the above ideas, students will be interested in science.

It causes them to study physics in depth and they don't fall asleep in class. The Department of Solid State Physics differs from other departments in that it is interesting, complex, modern, and requires a high level of imagination to study. Adequate provision of new materials covering the current achievements of the Department of Solid State Physics will help students to understand the innovations in this field, broaden their horizons and master them independently.

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