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THEORETICAL AND METHODOLOGICAL BASES OF STUDY THE PROPERTIES OF SOLID BODIES IN GENERAL EDUCATIONAL ESTABLISHMENTS

In conditions of humanization and humanitarization of general secondary education there is a tendency to decreasing the role of politechnization in teaching physics and other natural sciences. According to the analysis of existing curricula of school disciplines and corresponding textbooks, reduces the amount of educational material as for applied using of physics, especially in the aspect of technical and technological knowledge. It leads to a weakening of the function of practical directioning of physics teaching and practical training of youth for life in a modern high-tech society, because high-tech equipment fills production activity and demand of modern man.

The problem of study the technical and technological knowledge in theory and practice of teaching is considered in works of famous scientists and methodologists such as P. Atamanchuk, L. Blahodarenko, I. Bogdanov, S. Velichko, A. Kaspersky, O. Lyashenko, M. Shut and others. In particular, the problem of reducing the role of politechnization in teaching physics at elementary school is deeply analyzed in the works of L. Blahodarenko. The problem of researching the properties of solids bodies in conditions of implementation the State Standard of secondary education was considered in our study. However, the study of physics elements of solids by means of integrative and objective approach in methodical literature is highlighted not enough.

The purpose of the article is to ground the methodology of studying the properties of solids based on scientific principles and implementing accessibility in education and integrative-objective approach (according to the State Standard of secondary education).

The solid state physics, as a physical theory, should be the determining factor and the main means of forming students' knowledge of FTT in the main and senior school. Explaining the properties of solids should be based on the microscopic and macroscopic approaches. One of determining factors in the forming of knowledge about the FTT at CEI is the principle of unity of content and procedural learning party. This principle must be consistently implemented at all stages of designing the content of teaching material from the theoretical level representation - and more in the direction of real learning. Effective study the properties of solids in secondary schools in conditions of implementation of the State Standard of secondary education is only possible through innersubject, interdisciplinary and intereducational-sectoral cooperation.