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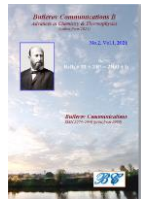

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Water quality of swimming pools as cultural objects

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Keywords: swimming pools, water disinfection, sanitary and epidemiological safety, toxic impurities, methods of cleaning the aquatic environment of basins.

Abstract

The analytical review considers data on the effective and environmentally sound operation of swimming pools, the preparation, control and analysis of water quality, which are widely covered in scientific publications of foreign and domestic authors. The nomenclature of polluting objects is constantly expanding, the assortment of impurity compounds, simultaneously present in various materials, products, as well as in water and air, is also constantly increasing. In connection with the emerging trend of improving the human body by means of physical culture, intensive construction of modern cultural facilities, including swimming pools, is observed. Therefore, physicochemical studies using modern analytical control tools remain relevant, which revealed a deterioration in their quality, with regard to both organic and mineral pollutants. During classes in the basin and water parks, some substances released by humans are potential water pollutants. For open pools, additional contaminants come from leaves and dust from the environment or from rainwater. At the present stage, the most promising technologies for treating the water of cultural objects, as shown by numerous studies of scientists from different countries, are advanced oxidation processes, biodegradation, thermal degradation, chemical reduction, membrane filtration and some hybrid processes. They are promising technologies for treating water in the process of its purification, which can contribute to their full-scale application and provide promising directions for further expanding scientific research in this area. The purpose of the scientific review article is the theoretical justification of the modern state of water quality of swimming pools and other objects for cultural purposes. The tasks of ensuring harmlessness to water health in swimming and various water sports centers are of undeniable interest to many specialists: from the creators of equipment, modern methods of water quality control and is the main condition for sports, medical, rehabilitation, preventive and other useful results from swimming.

Content

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