M.D. Kharlamova, A.I. Kurbatova

MODERN TECHNOLOGIES OF WASTE MANAGEMENT, RECYCLING AND ENVIRONMENTAL PROTECTION

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Peoples' Friendship University of Russia
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Х21 Современные методы обращения с отходами, рециклинг и защита окружающей среды = Modern technologies of waste management,recycling and environmental protection : учебное пособие / М. Д. Харламова, А.И. Курбатова. – Москва : РУДН, 2017. – 98 с. : ил.

This tutorial introduces the general organizing and planning principles on solid waste production and consumption, highlights the ecological, economic and technological aspects of their storage and complex processing principles. Particular attention is paid to the environmental safety in the handling of waste, which is ensured by modern methods of monitoring. In the textbook there are also considered the mechanisms and interaction of xenobiotics with the environment, biotic and abiotic factors that contribute to the self-cleaning and sustainability of the biosphere. Moreover the tutorial material contains data of current production and technologies that provide efficient processing of industrial and domestic waste; waste which are formed due to industrial and domestic wastewater and gas emissions treatment and waste with a high content of organic substances. In the tutorial there are overlooked the most common methods of municipal solid waste processing - sorting, crushing and compacting used in modern practice, analyzed regulations and acts, the legal framework for the management of solid waste. Beside that you are introduced to the existing concepts of industrial and municipal wastes control, municipal waste management strategy is also considered. Thus, the manual has a scientific theoretical and practical purpose, as physico-chemical, biochemical and technological basics of waste management and recycling are highlighted, as well as the basics of management strategies and documentation activities in the field of waste management. The manual is intended for students enrolled in the direction 022000 "Ecology and Environmental Management", can be used as the basic textbooks on learning and course design on: "Storing, processing and recycling of waste", "Resource-and energy-saving technologies", and as additional literature in the study subjects "Natural-and-industrial complex management", "Environmental design of industrial and urban facilities", "Modern environmental technologies".

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