*Environmental Engineering and Management Journal*

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# REVIEW OF PROPERTIES OF ACTIVATED CARBON ADSORBENTS PRODUCED FROM TEXTILE WASTES

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## Abstract

Today, adsorption has become the focus of attention for the uptake of heavy metal ions, industrial dyes and pharmaceuticals. This focus is due to the regeneration of the adsorbent and the minimization of the chemical through the adsorption technique, resulting in high efficiency of adsorption and the possibility of metal recovery, flexibility and simplicity of design. In recent years, the number of studies using chemically modified textile wastes as adsorbents has increased due to their high adsorption capacity and regeneration ability, thus achieving high efficiency. On the other hand, the increasing world population inevitably leads to an increase in the amount of waste left from the textile industry, together with the increase in demand for textile and ready-made clothing products. While these textile wastes cause disposal problems within the framework of waste management, they also reveal the need for solutions that support sustainable development. Recently, many studies have been conducted on the preparation of activated carbons from various materials. For example, the fact that cotton textile waste is considered a good carbon source because it is rich in cellulose and other substances draws the attention of researchers in this direction. Therefore, this study aims to discuss the technological developments in this context and to reveal the deficiencies or weaknesses of these developments by examining the studies investigating the potential of textile wastes in the removal of contaminants such as dyes, metals and pharmaceuticals.

*Key words:* adsorption, sustainable development, technological developments, textile wastes, waste management

*Received: June, 2023; Revised final: November, 2023; Accepted: December, 2023*

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