



Application of Eco-Friendly Geopolymer Composite in Wastewater Treatment

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ABSTRACT

Seeing as heavy metal pollution from industrial activities and technological development is a serious threat to the environment due to their toxicity, biodegradability, and bioaccumulation, heavy metal removal from wastewater is one of the most important stages of industrial and municipal wastewater treatment. In the previous 150 years, the worldwide amount of metal pollution has increased by more than 4,000 times. Heavy metals, whether in the form of metallic elements or organic materials, can have a substantial impact on human society's health. Adsorption is a process that can be utilized in wastewater treatment that is environmentally friendly. However, the use of known and expensive adsorbents such as activated carbon has prompted researchers to look for acceptable alternatives. Much research has been done on the physical and chemical properties of geopolymers for use in the treatment of heavy metals as an alternative to activated carbon. The purpose of this paper is to investigate the adsorption of heavy metals using geopolymers.

Keywords:

Wastewater Treatment, Absorbent, Geopolymer, Eco-Friendly Composite.