OIL ABSORPTION PERFORMANCE OF COCONUT COIR FIBER BASED ON HYDROTHERMAL EFFECT

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ABSTRACT

OIL ABSORPTION PERFORMANCE OF COCONUT COIR FIBER BASED ON HYDROTHERMAL EFFECT

The oil absorption performance of coconut coir fiber is a topic of significant interest due to the potential environmental and economic benefits it offers. The purpose of this research was to investigate the effect of hydrothermal treatment on the oil absorption capacity of coconut coir fibre. Experiments were carried out to evaluate the oil absorption capabilities of untreated coconut coir fibre compared to those of hydrothermally treated coconut coir fibre. The research also investigated the structural and chemical changes in coconut coir fibre caused by the hydrothermal effect through the characterization of coconut coir fiber using FTIR (Fourier Transform Infrared Spectroscopy). The findings of this study assist to comprehend how hydrothermal treatment might increase the oil absorption performance of coconut coir fibre, offering insights for potential applications in environmental remediation and industrial settings.

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