

## **Wax removal in textile manufacturing wastewater using surface modification of rice straw**

### **ABSTRACT**

In this study, the effect of modification surface on lignocellulosic adsorbent (rice straws) was developed and examined. The surface of lignocellulosic adsorbent was treated with Cetylpyridinium chloride (CPC) solution, sodium hydroxide (NaOH) solution and mixture of NaOH and CPC solution at  $90 \pm 5^\circ\text{C}$  with different chemical treatments method. The surface morphologies of treated and untreated rice straws were observed by Scanning Electron Microscope (SEM). The treated rice straws adsorb more wax compared to untreated rice straws.

**Keyword:** Modified rice straws; Wax adsorbent; Wax removal; Wastewater treatment; Textile industry waste effluent