Effects of flame retardant treatment on the characteristics of Lyocell fabrics

The thermal stability of flame retardant treatment on Lyocell fabrics was investigated. In order to enhance the thermal properties of Lyocell, flame retardant treatment was carried out by chemical pre-treatment using both alkali metal and Lewis acid. The characterization of resultant samples was conducted based on the weight loss, thermal shrinkage, microstructure, carbon content and thermal properties. It is noted that alkali metal and Lewis acid were effective for enhancing the thermal properties of Lyocell fabrics.