

A Novel Value Added Product From Cellulosic Waste

Ambuj Ilindra, J. D. Dhake

ABSTRACT

White waste paper cuttings and white cotton hosiery waste are the cellulosic material obtained from wood and cotton. The use of these materials is one of the effective ways of utilization of cellulosic waste for getting value added product like microcrystalline cellulose. The cellulose obtained from waste cellulosic materials was purified. The purified cellulose contains near about 90% alpha cellulose. When this fibrous alpha cellulose was allowed to hydrolytic degradation under controlled conditions with weak hydrochloric acid, cleavage of glucosidic linkage between carbon and oxygen occurs. The different characteristics of prepared microcrystalline cellulose were comparable with the characteristics of commercially available microcrystalline cellulose and the specifications given by Indian Standards.

Keywords: microcrystalline cellulose, white waste paper cuttings and cotton hosiery waste, hydrolysis etc.