Effects of a Bacterial Treatment on the Brightness and Strength Properties of Kraft Bagasse Pulp

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ABSTRACT

Kraft bagasse pulp was treated with several bacterial strains, including *Pseudomonas flurescens* (Pf1 & Pf2); and *Bacillus subtilis* (B) for 10, 20, 30 and 40 days. Strength and brightness properties of hand sheets made from bacterial treated pulp were examined. The characteristics of bacterial treated pulp using scanning electron microscope were carried out. The relative changes in the properties of hand sheets made from treated pulp with *Pseudomonas flurescens* and *Bacillus subtilis* followed by hydrogen peroxide bleaching were studied. The effect of the degree of polymerization of bleached bacterial treated pulp on the incubation time was carried out.

Keywords: Bacterial treatment; Kraft bagasse pulp; Hydrogen peroxide bleaching; Papermaking; Scanning electron microscope