

Title (en)
Process for bleaching using peroxo-polyoxometalates for textiles made from mixtures of cellulosic fibers such as: flax-cotton, hemp-cotton

Title (de)
Verfahren zum Bleichen mithilfe von Peroxo-Polyoxometallaten von Textilien aus Mischungen cellulosischer Fasern wie: Flachs-Baumwolle, Hanf-Baumwolle

Title (fr)
Procédé de blanchiment à l'aide de peroxo-polyoxométalates de textiles fabriqués à partir de mélanges de fibres cellulosiques tels que : lin-coton, chanvre-coton

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Abstract (en)
According to the invention, the process consists of bleaching textile materials from mixtures of cellulosic fibre, such as: (flax-cotton, hemp-cotton) until achieving a whiteness degree of 70-80%, which is carried out in two stages: in the first stage, the materials are treated in aqueous solution containing peroxo-POM catalysts $\{(NH_4)_8[Mo_{10}O_{22}(O_2)_{12}]; Na_2[MoO(O_2)_2(C_2O_4)]; MoO(O_2)_2; WO(O_2)_2\}$ in the presence of ionic surfactant and H_2O_2 , at the temperature of 70-90° C for 60-90 minutes, while in the second stage the material treated in the first stage is suspended in a solution containing 1,5-7 g NaOH, 0,2-1,3 g Na_2SiO_3 and 0,8-3,2 g H_2O_2 , for 1-1.5 hours at the temperature of 70-80°C, after which it is washed with cold water until it reaches neutral pH, and then it is air-dried.

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