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## **LOW - POLLUTION BLEACHING OF PULP**

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### **Abstract**

The paper presents the investigations on bleaching of spruce kraft pulp with oxygen and peroxide according to (OP)-Q- (EOP)-P sequence: (OP) – oxygen-peroxide stage; Q – chelating stage; (EOP) – alkali extraction with oxygen and peroxide stage; P – peroxide stage). The pulp brightness and properties were found highly dependent on unbleached pulp Kappa number and on residual lignin content after (EOP) stage. Also, the final P stage conditions strongly influence the bleaching results.

In order to achieve a satisfactory pulp brightness (84-86 % ISO), it is necessary to split the chemical charge in the P stage, so that it could be replaced with P-P or better P-P-P, without a washing interstage. The above-mentioned bleaching sequence allows the improvement of water balance, and thus bringing environmental benefits, both in terms of water conservation and by decreasing the environmental impact of wastewaters.

*Keywords:* pulp, bleaching, lignin, oxygen, peroxide, delignification

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