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# PURIFICATION OF WHITE WATERS BY SELECTIVE FLOTATION

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## Abstract

Removal of detrimental contaminants from paper machine circulation waters is essential for process runnability and paper quality. The applicability of selective flotation for removing a hydrophobic nature from paper machine circulation waters was investigated in laboratory experiments. The separation efficiency of ink, stickies, and wood extractives using a flotation scheme in which the froth was generated by the white water's natural surfactant components without any chemical addition. The removal efficiency of contaminants was considered in relation to total losses of solid materials. The results showed that some waters were able to produce stabile froth, those that generated froth a moderate separation of contaminants in the froth. With a moderate removal of 1 to 2% of solids from waters, removal of 45% of stickies, 27% of ink, and 20 to 50% of wood extractives. Higher removal of contaminants resulted in solids losses at levels that