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RAZVOJ IN UPORABA KOMBINIRANIH RETENCIJSKIH SREDSTEV

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Izvleček

Flokulacija je proces tvorbe flokul oziroma aglomeracije koloidnih delcev ter vpliva na formacijo papirja, ki je odvisna od mikro in makro homogenosti vlakninske suspenzije. Izbira papirniškega sistema, torej vrsta vlaknin, polnil in dodatkov, vpliva na prisotnost snovi, ki krožijo v sistemu ter na učinkovitost delovanja flokulacijskih ali retencijskih sredstev. Uporabili smo sintetizirana retencijska sredstva, polimere z različno molekulsko maso ter vrsto in gostoto naboja.

Mehanizem vezave delcev polnil in fine frakcije oziroma retencija je pogojen z adsorpcijo retencijskih sredstev na omenjene komponente ter tvorbo flokul. V zaprtih krogotokih se količina neadsorbiranih snovi kot tudi desorbiranih povečuje in obremenjuje vode, ki krožijo v sistemu.

Ključne besede: retencija, retencijska sredstva, elektrokinetski parametri

THE DEVELOPMENT OF NEW RETENTION AGENTS FOR PAPERMAKING INDUSTRY

Abstract:

Flocculation is a process of flock formation or agglomeration of colloidal parts. It affects the formation of paper, which depends on micro- and macro-homogeneity of pulp suspension. Selection of a system, i.e. of various sorts of pulp, fillers and additives, affects the presence of stock flow in the system as well as the efficiency of flocculating and retention agents' activities. Flocculants are synthesized chemical agents, polymers with differentiation in molecular weight as well as in charge sort and density. Filler parts and fine fraction bonding mechanism, i.e. retention, is conditional on adsorption of retention aids to the abovementioned components and on flocculant formation. The quantity of non-adsorbed as well as desorbed substances in closed circuits increases and charges the waters circulating within the system.

Key words: retention, retention agents, electrokinetic parameters

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