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mNm²/g /

Nm/g / /

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NSSC :

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		()	(%)
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	/	/ mm	
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		A2
		A3
		A4
		A5
		B
		C

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CPPA D.

Tappi

Technical Association of Pulp and Paper Industry

PFI mill

Canadian Pulp and paper Association

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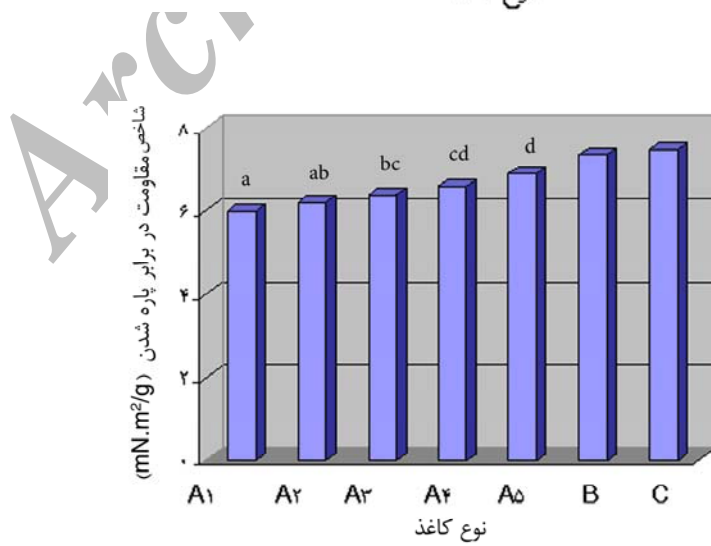
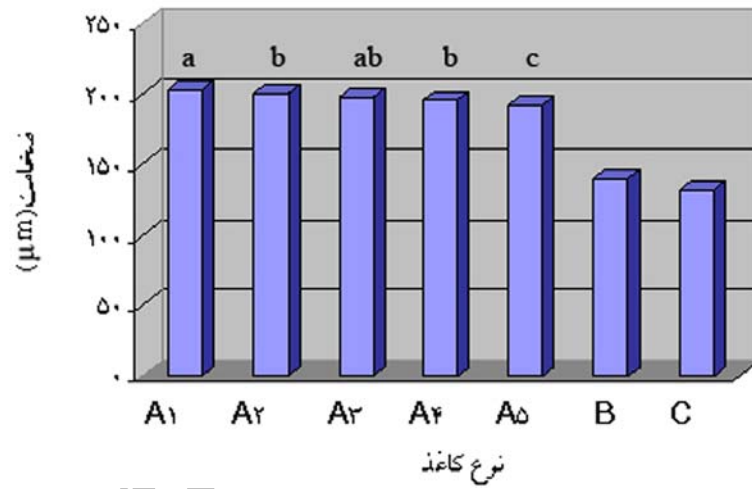
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SPSS

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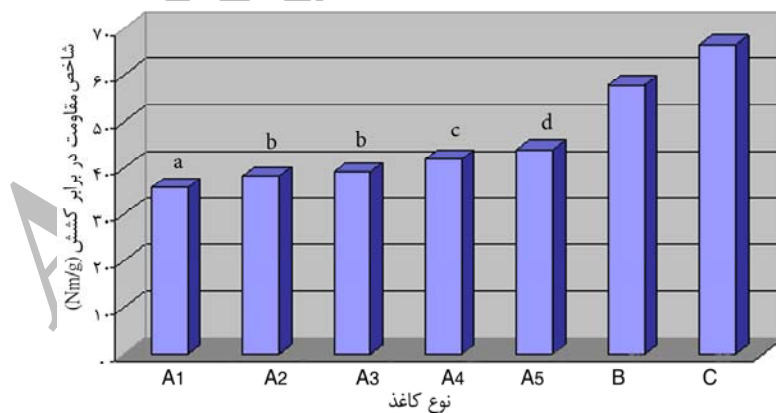
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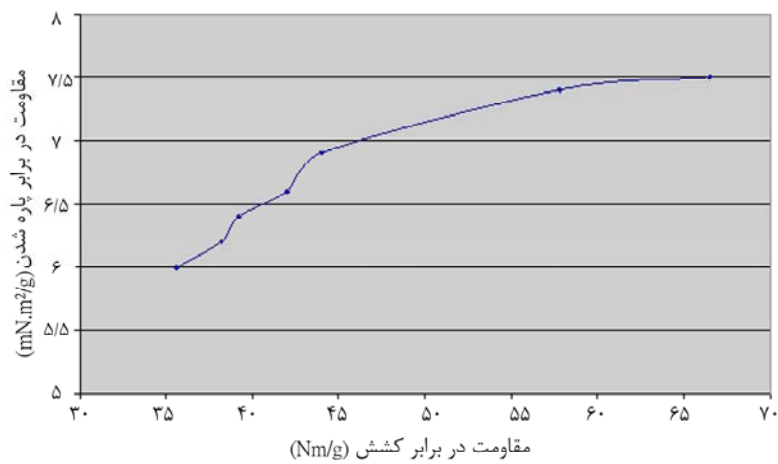
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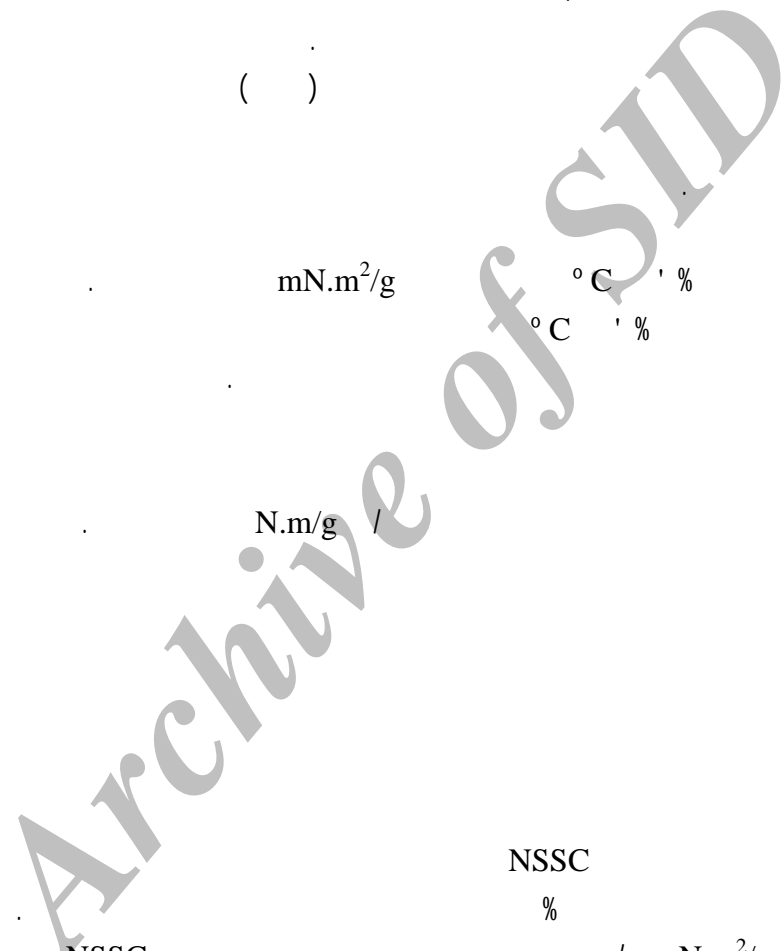


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Mechanical properties of neutral sulfite semi-chemical pulp from rapeseed residues

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Abstract

Mechanical properties of neutral sulfite semi-chemical (NSSC) pulps produced from rapeseed residues were investigated. Preliminary pulps were prepared applying different levels of sodium sulfite at constant ratio of $\text{Na}_2\text{SO}_3/\text{Na}_2\text{CO}_3$ of 3/1, and three pulping times. Then pulping yield was analyzed and pulps produced at 8-16% sodium sulfite (2% intervals) and 20 minutes pulping time were selected for further evaluation. In addition, three pulps produced with application of 12% sodium sulfite and 20, 40 and 60 minutes pulping times were also evaluated. Pulps were refined to 400 ml CSF and then handsheets were made. Tear index varied between 6 to 7.5 $\text{mN}\cdot\text{m}^2/\text{g}$ and tensile index at 35.6 to 66.5 $\text{N}\cdot\text{m}/\text{g}$. The effect of chemical charge as well as pulping times, on both tear index and tensile index was significant 95% level. Furthermore, lower yield pulps, showed higher values for both properties and tear index increased with increasing tensile index.

Keywords: NSSC, Rapeseed, Kappa No, Mechanical Properties

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