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## Autocatalyzed Ethanol-Water Pulping of Wheat (Triticum aestivum L.) Straw

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**Abstract:** This study aimed possibility of organosolv pulp production by adding to the pulping liquor without any inorganic catalyzes from the wheat straw which is known as an important raw-material for pulp production in Turkey. To obtain optimum pulping conditions ethanol ratio to pulping liquor, temperature and cooking time at maximum temperature were changed systematically and 18 pulping trial were made. The results showed that the pulping temperature at 170ºC was critical for delignification and fiber liberation. Under the limit of 170ºC sufficient delignification and chemical defibration were not observed. However, fast fiber liberation occured by applying 180-190ºC pulping temperatures. Increasing of pulping time at high temperature level , caused serious viscosity and strength lacks. As a result, optimum pulp properties obtained at 170ºC pulping temperature and at 120 min. cooking time with 50 % aqueous alcohol. Organosolv wheat straw pulps obtained optimum pulping conditions has 48 % screened yield, 43 kappa number, 849 $cm^3/g$, viscosity, and 5.7 km. breaking length, 2.1 $kPa.m^2/g$, brust index, 6.7 $mN.m^2/g$. tear index and 17% ISO brightness at the 50 SRº freeness level.

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