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Impregnation with black liquor prior to white liquor introduction.

A method of continuously digesting comminuted cellulosic fibrous material (e.g. wood chips) is provided which simultaneously improves uniformity of the end product and has substantial energy economy. The chips are slurried, e.g. with black liquor, and fed to the top of a vertical digester. In the digester the chips are soaked in and heated with black liquor withdrawn from near the bottom of the cooking zone, which black liquor is at cooking temperature. White liquor (kraft cooking liquor) introduced into the cooking zone is preheated by passing it in heat exchange relationship with a portion of the black liquor withdrawn from the digester, so that only a small amount of heat in the form of steam need be added to the white liquor to bring it to cooking temperature. At the top of the digester, a portion of the liquid in the slurry can be withdrawn through a screen, pressurized, and then introduced under pressure with a downward velocity component facilitating a zone of concurrent movement of the chips and liquor.

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EUROPEAN SEARCH REPORT

Application Number

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	US-A-3 303 088 (GESSNER) * claims *	1,2,4,5, 11,16, 17,20	D21C3/02 D21C11/00
P,A	WO-A-9 105 103 (BELOIT CORPORATION) * the whole document *	1,16,20	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			D21C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 16 APRIL 1993	Examiner BERNARDO NORIEGA F.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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