(19)	Ø	Europäisches Patentamt European Patent Office Office europ <del>é</del> en des brevets	(1)	Publication number: 0 377 981 A3							
(12)	<b>EUROPEAN PATENT APPLICATION</b>										
21 22	Application	number: <b>89313196.1</b> j: <b>18.12.89</b>	51	Int. Cl. <sup>5</sup> : <b>D21C</b> 9/10, D21C 9/147							
30 (43)	Priority: <b>20.12.88 US 286782</b> Date of publication of application: <b>18.07.90 Bulletin 90/29</b>			Applicant: E.I. DU PONT DE NEMOURS AND COMPANY 1007 Market Street Wilmington Delaware 19898(US)							
~	BE CH DE F	Contracting States: <b>R GB LI LU NL SE</b> rred publication of the search report: <b>Iletin 92/26</b>		Inventor: Jayawant, Madhusudan Dattatraya 882 Sharpless Road Hockessin Delaware 19707(US) Inventor: D'Souza, Rupert 1495 Balhan Drive Apt. 207 Concord California 94521(US) Inventor: Hsieh, Jeffrey Shaocheng 1484 Woodthrust Way, N.E. Marietta Georgia 30062(US)							
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Section 5 Se

 $\bigcirc$  Treatment of the pulp with sufficient nitrosating agent to provide 0.1 to 1.2 weight percent active NO<sup>(+)</sup> on a dry pulp basis at a pH of 1.7 to 4 and in oxygen environment under high intensity mixing conditions before an alkaline oxidative stage in a bleach sequence, the nitrosating agent being a compound that contributes predominantly nitrosonium ions.



European Patent Office

## EUROPEAN SEARCH REPORT

Application Number

## EP 89 31 3196

Category	Citation of document with indication, where appropriate, of relevant passages		Relevant to claim	CLASSIFICATION OF THI APPLICATION (Int. Cl.5)	
P,X	1989 TAPPI PULPING CONFE Proceedings (Book 1), pa D'Souza, R.; Hsieh, J.S. "Liquid-phase nitrosatic oxygen delignification of * the whole document *	nges 203-211;22-25 Oct 89 ; Jayawant, M.D.: on pretreatement for	1-7,10	D21C9/10 D21C9/147	
•	ABSTRACT BULLETIN OF THE CHEMISTRY. vol. 59, no. 1, July 198 KUBELKA, V. ET AL.: 'Mod pulps with nitrogen diox * abstract no. 59-00528	38, APPLETON US dification of sulfite ide'	1,11		
A	ABSTRACT BULLETIN OF THE CHEMISTRY. vol. 50, no. 1, July 197 page 53; BRINK, D.L. ET AL.: 'So oxyde-oxygen pretreatmen * abstract no. 50-00309		TECHNICAL FIELDS SEARCHED (Int. Cl.5 )		
D,A	 FR-A-2 537 176 (MO OCH D * claims *	OMSJO AB)		D21C	
	The present search report has be	en drawn up for all claims	-		
	Place of search THE HAGUE	Date of completion of the search 15 APRIL 1992	BERN	Examiner VARDO NORIEGA F.	
X : part Y : part doc A : tech O : non	CATEGORY OF CITED DOCUMEN icularly relevant if taken alone icularly relevant if combined with anot ument of the same category nological background -written disclosure rmediate document	TS T : theory or princip E : earlier patent do after the filing d ber D : document cited i L : document cited f	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 A : member of the same patent family, corresponding		