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(54) **Paper and method of making it.**

(57) A paper is a unitary structure but has more than one layer. The layers are of respective different fibres. The paper is made by applying a second slurry to a first slurry at a time when both layers have a consistency which is primarily liquid but the first is less liquid than the second. The second slurry is applied to the first so as to provide a disturbance at an interface between the surfaces of the layers. This application of the second slurry is carried out under predetermined conditions of angle, distance, rate and consistency having regard to the conditions of the first slurry when the second slurry is applied so as to control the extent of disturbance in the interface between the layers and hence the degree of intermingling and interlinking in the interface region. This ensures the bonding together of the layers irrespective of the nature of the material of the slurries.

The process allows the strength of the paper at the interface to be at least as great as that in either of the two layers. Thus this is particularly suitable for forming a battery separator having a density gradient across it.



EP 83306905.7

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. 3)
X	CH - A - 532 471 (WEISSHUHN) * Fig. B, belonging text *	1-7,9, 10,11	D 21 F 11/04
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X	US - A - 4 274 915 (MUNARI) * Totality *	1,9,11- 13	
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A	CH - A - 461 253 (SANDY HILL) * Claim 1; column 7, lines 53-61 *	1,9,11	
	--		TECHNICAL FIELDS SEARCHED (Int. Cl. 3) D 21 F 11/00 D 21 H 1/00 D 21 H 5/00
A	US - A - 4 220 500 (BABA) * Claims 1,2 *	1,9,12, 15	
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A	GB - A - 1 493 001 (ANIC) * Claims 1,7 *	1,9,13	
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A,D	US - A - 2 098 733 (SALE) * Fig. 1,2, belonging text *	1,5,6,9	
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A,D	US - A - 3 353 682 (PALL) * Fig. 1; examples *	1,9,20, 24	
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A,D	US - A - 4 216 280 (KONO) * Claims *	23	
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A,D	US - A - 4 262 068 (KONO) * Claim 1 *	23	

The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 08-06-1984	Examiner HOFMANN
CATEGORY OF CITED DOCUMENTS 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 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			