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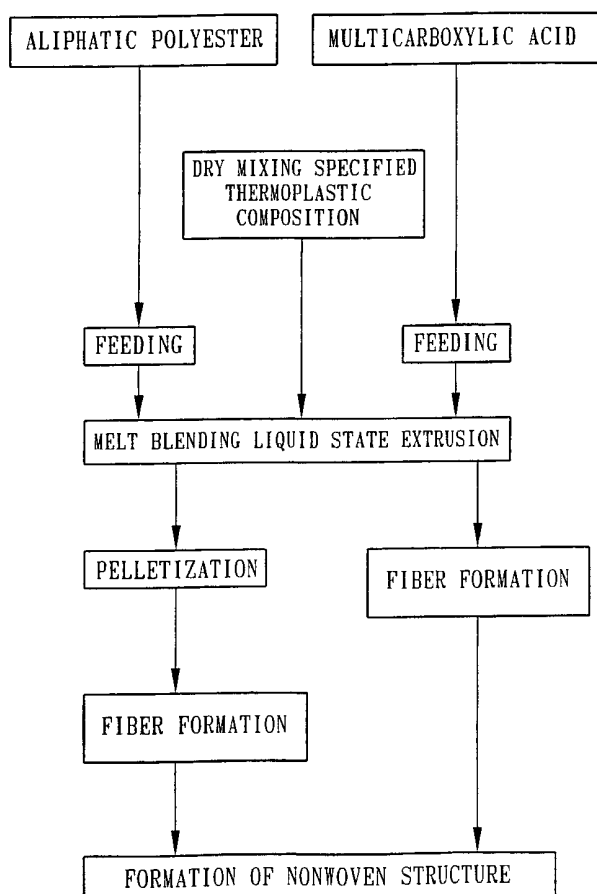
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(54) Title: SYNTHETIC FIBER



(57) Abstract: A process is disclosed for forming a synthetic fiber including providing a first component of an aliphatic polyester polymer a second component of a multicarboxylic acid, mixing the first component aliphatic polyester polymer and the second component multicarboxylic acid to form an unreacted specified thermoplastic composition, and melt blending the unreacted specified thermoplastic composition in an extruder or a mixer. The second component multicarboxylic acid lubricates the extruder and provides a nucleating agent for crystallizing the specified thermoplastic composition to form a mean crystal size less than about 120 Angstroms. Fiber composed of the specified thermoplastic composition has a mean crystal size less than about 120 Angstroms. The fiber has a glass transition temperature (T<sub>g</sub>) less than about 55 °C. In one aspect, a first component of polylactic acid and a second component of adipic acid provide synthetic fibers in a nonwoven structure used in a biodegradable and compostable disposable absorbent product for the absorption and removal of body fluids.



WO 01/46501 A3



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# INTERNATIONAL SEARCH REPORT

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## A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 29493 A (KIMBERLY CLARK CO) 9 July 1998 (1998-07-09) the whole document ---	1-24
P,X	US 6 135 987 A (ETZEL BRIAN THOMAS ET AL) 24 October 2000 (2000-10-24) the whole document -----	1-24



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

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