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(54) Title: SUPERABSORBENT POLYMERS COMPRISING DIRECT COVALENT BONDS BETWEEN POLYMER CHAIN SEGMENTS AND METHOD OF MAKING THEM

(57) Abstract: The present invention refers to superabsorbent polymers comprising polymer chain segments. At least a part of the polymer chain segments are crossing-linked to each other through covalent bonds, wherein the covalent bonds are formed directly between polymer chain segments by reaction with a radical former molecules, the radical former molecules being able to form bi-radicals. The present invention refers further to a method of cross-linking superabsorbent polymers which comprises the steps of: a) providing a superabsorbent polymer comprising polymer chain segments, and b) providing radical former molecules, the radical former molecules being able to form bi-radicals upon electromagnetic irradiation, and c) exposing the superabsorbent polymer and the radical former molecules to electromagnetic irradiation, thereby forming direct covalent bonds between the polymer chain segments.

WO 2006/014852 A3

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

C08J3/24 C08J3/075 C08L101/14 A61L15/60

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)

C08J C08L A61L

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.
A	EP 0 248 437 A (HAYASHIKANE SHIPBUILDING & ENGINEERING CO., LTD) 9 December 1987 (1987-12-09) claims 1,3	1
A	EP 0 514 775 A (THE DOW CHEMICAL COMPANY) 25 November 1992 (1992-11-25) claim 1	1
A	PATENT ABSTRACTS OF JAPAN vol. 013, no. 302 (C-616), 12 July 1989 (1989-07-12) & JP 01 092226 A (TAIYO FISHERY CO LTD), 11 April 1989 (1989-04-11) abstract	1



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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