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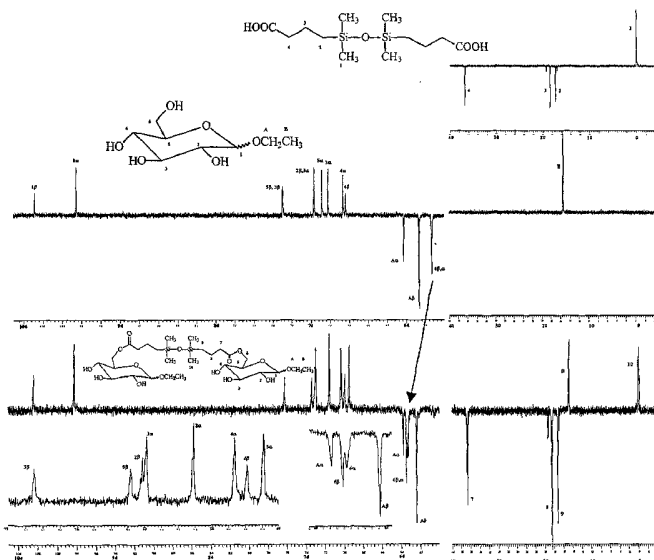
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[Continued on next page]

(54) Title: ENZYME CATALYZED ORGANOSILICON CARBOHYDRATES



(57) Abstract: Methods for forming structurally defined organosilicon carbohydrates are provided. Additionally, structurally defined organosilicon carbohydrates are provided. The structurally defined organosilicon carbohydrates may be formed by contacting a hydrolase enzyme with an organosilicon reactant and a carbohydrate reactant. The enzyme may catalyze the formation of an ester bond between carboxylic acid, ester, or amide functional groups of the organosilicon or carbohydrate reactant and alcohol functional groups of the carbohydrate or organosilicon reactant. The enzyme may catalyze the formation of an amide bond between carboxylic acid, ester, or amide functional groups of the organosilicon or carbohydrate reactant and amine functional groups of the carbohydrate or organosilicon reactant.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C07H 1/00, 3/00; C08B 37/00; C12Q 1/34; C07F 7/18
 US CL : 536/123.1, 124; 556/400; 435/18

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)
 U.S. : 536/123.1, 124; 556/400; 435/18

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 practicable, search terms used)
 EAST, STN-Registry, CAPLUS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,218,560 B1 (ABELE et al) 17 April 2001 (17.04.2001), entire document.	1-37
A	JP 2002119840 A (ASAHI KASEI KOGYO KK[ASAH]) 23 April 2002 (23.04.2002), abstract.	1-37

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"B" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

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