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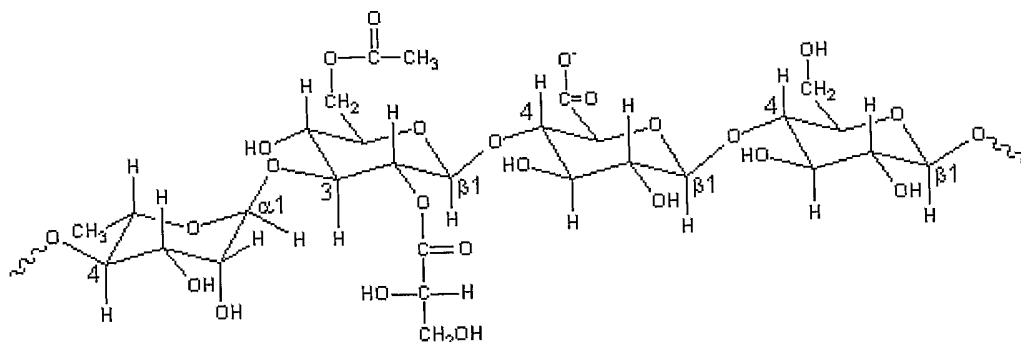
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[Continued on next page]

(54) Title: MATERIALS FOR MEDICAL IMPLANTS AND OCCLUSIVE DEVICES



(57) Abstract: An embodiment is a swellable medical device that swells after introduction into a patient to occlude a lumen or void in a patient. The device may be anisotropically swellable so that it swells unequally in some dimensions to create an improved fit of the device into the patient. Anisotropically swellable materials are also described. Further, materials and methods for removing a biocompatible hydrogel from a patient by a metal-catalyzed oxidative-reductive reaction are described. Other embodiments are directed to devices that are shrinkable, dissolvable, or otherwise removable by exposure to deionized water or hypertonic solutions. Certain other embodiments are materials and methods for making and using chelation-resistant materials crosslinked by insoluble metal salts.

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# INTERNATIONAL SEARCH REPORT

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PCT/US05/07099

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC: **A61K 31/715( 2006.01),9/00( 2006.01),33/38( 2006.01);A61M 5/00( 2006.01)**

USPC: 514/54;424/488,618;604/8

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. : 514/54;424/488, 618; 604/8

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)  
Please See Continuation Sheet

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- A	US 5,573,934 A (HUBBELL et al.) 12 November 1996 (12.11.1996), column 4, line 5, column 6, lines 35,36, 59-64, column 8, line 21, column 13, lines 44-56.	1,7,8, 15,23 ----- 32, 44
X	US 5,634,943 A (VILLAIN et al.) 03 June 1997 (03.06.1997), column 2, lines 16-29, column 3, column 4, lines 1-36, column 6, lines 44-54.	29-31, 33, 34, 41-43, 45, 49, 50, 80
X --- Y	US 6,184,266 B1 (RONAN et al.) 06 February 2001 (06.02.2001), column 2, lines 55-68, columns 3-8, column 9, lines 1-56.	1,2,4-19,21-31, 33-43, 45-86 -----
Y	US 5,895,804 A (LEE et al.) 20 April 1999 (20.04.1999), column 1, lines 54-63, column 2, lines 45-65.	3, 20 ----- 3,20

Further documents are listed in the continuation of Box C.

See patent family annex.

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Continuation of B. FIELDS SEARCHED Item 3:

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