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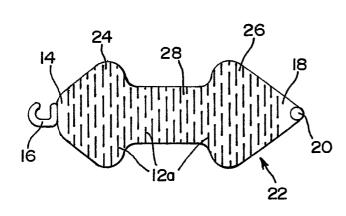
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(54) Title: THIN FILM METALLIC DEVICES FOR PLUGGING ANEURYSMS OR VESSELS



(57) Abstract: Thin film metallic devices implantable within a human subject for occlusion of an aneurysm or blood vessel are provided. The devices are movable from a porous, elongated, collapsed configuration for delivery to a deployed configuration within the body. The pores telescope as the device moves to its deployed configuration, which causes the device to longitudinally foreshorten and radially expand, while also decreasing in porosity for preventing blood flow. The occlusion devices may be either self-supporting or supported by a strut structure. Additionally, the occlusion devices may comprise a plurality of layers having unaligned pore systems which further reduce porosity in the deployed configuration.



INTERNATIONAL SEARCH REPORT

International application No. PCT/US05/33404

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A61B 17/08; A61M 29/00; A61F 02/04 (2006.01) USPC - 606/151, 157, 191; 623/1.39, 1.44, 23.64 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) IPC(8): A61B 17/08; A61M 29/00; A61F 02/04 (2006.01) USPC: 606/151, 157, 158, 191, 193, 194; 623/1.1, 1.3, 1.39, 1.4, 1.44, 23.64-23.69, 23.7, 23.71			
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)			
Micropatent, PubMed			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.
A	US 5,334,216 A (VIDAL et al) 02 August 1994 (02.08.1994) entire document		1-23
Α	US 2003/0066533 A1 (LOY) 10 April 2003 (10.04.2003) entire document		1-23
Α	US 2001/0039449 A1 (JOHNSON et al) 08 November 2001 (08.11.2001) entire document		1-23
Α	US 2004/0143288 A1 (SEARLE) 22 July 2004 (22.07.2004) entire document		1-23
Α	US 5,656,036 A (PALMAZ) 12 Augist 1997 (12.08.1997) entire document		1-23
Α	US 5,908,409 A (RINEHART et al) 01 June 1999 (01.06.1999) entire document		1-23
Α	US 2002/0151958 A1 (CHUTER) 17 October 2002 (17.10.2002) entire document		1-23
Α	US 6,432,116 B1 (CALLISTER et al) 13 August 2002 (13.08.2002) entire document		1-23
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