

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
26 October 2006 (26.10.2006)

PCT

(10) International Publication Number  
**WO 2006/113494 A3**

(51) International Patent Classification:

A61B 17/22 (2006.01) A61L 31/00 (2006.01)  
G01N 33/50 (2006.01)

(21) International Application Number:

PCT/US2006/014187

(22) International Filing Date: 14 April 2006 (14.04.2006)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

11/108,887 19 April 2005 (19.04.2005) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

19 April 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DEBULKING CATHETERS AND METHODS

(57) Abstract: A debulking catheter comprising a tissue debulking assembly for removing a continuous strand of material from a body lumen. Catheters of the present invention generally include a catheter body having proximal and distal portions and a tissue debulking assembly disposed at least partially within the distal portion. The tissue debulking assembly is radially movable to expose at least a portion of the assembly through a window on the catheter body. The catheter is advanced transluminally through the body lumen to contact material in the body lumen and remove a plane of continuous material that has a length that is typically longer than a length of the window on the catheter. The continuous material may be directed into a collection chamber. Thereafter, the material may be removed from the collection chamber and preserved or tested.



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# INTERNATIONAL SEARCH REPORT

International application No

PCT/US2006/014187

## A. CLASSIFICATION OF SUBJECT MATTER

INV. A61B17/22 G01N33/50 A61L31/00

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)

A61B G01N 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, EMBASE, BIOSIS, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DAVIS ET AL: "Endoscopic vein harvest for coronary artery bypass grafting: technique and outcomes"</p> <p>JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY, MOSBY-YEAR BOOK, INC., ST. LOUIS, MO, US,</p> <p>vol. 116, no. 2, August 1998 (1998-08), pages 228-235, XP005694337</p> <p>ISSN: 0022-5223</p> <p>abstract</p> <p style="text-align: center;">----- -/--</p>	1-30

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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\*P\* document published prior to the international filing date but later than the priority date claimed

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Date of the actual completion of the international search

6 February 2007

Date of mailing of the international search report

15/02/2007

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## INTERNATIONAL SEARCH REPORT

International application No

PCT/US2006/014187

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GONSCHIOR P ET AL: "Experimental directional atherectomy injury in arterial vessels: Impact of trauma depth on cellular response" AMERICAN HEART JOURNAL, MOSBY- YEAR BOOK INC., ST. LOUIS, MO, US, vol. 129, no. 6, June 1995 (1995-06), pages 1067-1077, XP004528687 ISSN: 0002-8703 "Results" on page 1069	1-30
X	VIOLARIS A G ET AL: "Increased extracellular matrix synthesis by smooth-muscle cells obtained from in vivo restenotic lesions by directional coronary atherectomy" AMERICAN HEART JOURNAL, MOSBY- YEAR BOOK INC., ST. LOUIS, MO, US, vol. 131, no. 3, March 1996 (1996-03), pages 613-615, XP004530626 ISSN: 0002-8703 "Methods" on page 613	1-30
X	HOSONO MITSU HARU ET AL: "Increased expression of T cell activation markers (CD25, CD26, CD40L and CD69) in atherectomy specimens of patients with unstable angina and acute myocardial infarction" ATHEROSCLEROSIS, AMSTERDAM, NL, vol. 168, no. 1, May 2003 (2003-05), pages 73-80, XP002300852 ISSN: 0021-9150 Section 2,1 "Atherectomy specimens" abstract	1-30
X	WEISS S M ET AL: "FAILURE TO DETECT CHLAMYDIA PNEUMONIAE IN CORONARY ATHEROMAS OF PATIENTS UNDERGOING ATHERECTOMY" JOURNAL OF INFECTIOUS DISEASES, CHICAGO, IL, US, vol. 173, no. 4, 1996, pages 957-962, XP009028996 ISSN: 0022-1899 abstract "patients" on page 957	1-30
X	KRINGS W ET AL: "[Ultrastructural and proliferation studies of human, catheter atherectomy extracted plaque material]" VASA. SUPPLEMENTUM 1991, vol. 33, 1991, pages 149-150, XP009078291 ISSN: 0251-1029 "patientengut" and "Methode" on page 149	1-30
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## INTERNATIONAL SEARCH REPORT

International application No

PCT/US2006/014187

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DARTSCH P. C. ET AL: "Cell constitution and characteristics of human atherosclerotic plaques selectively removed by percutaneous atherectomy" ATHEROSCLEROSIS, , 80(2), 149-157, 25 REFS. ISSN: 0021-9150, 1989, XP009078282 "Materials and Methods" on page 150 -----	1-30
X	US 2003/120295 A1 (SIMPSON JOHN B [US] ET AL) 26 June 2003 (2003-06-26) abstract paragraphs [0078], [0092] -----	1-30
X	US 2004/167553 A1 (SIMPSON JOHN B [US] ET AL) 26 August 2004 (2004-08-26) abstract paragraphs [0019], [0092] -----	1-30

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2006/014187

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003120295 A1	26-06-2003	US 2003125757 A1 US 2003125758 A1	03-07-2003 03-07-2003
US 2004167553 A1	26-08-2004	NONE	