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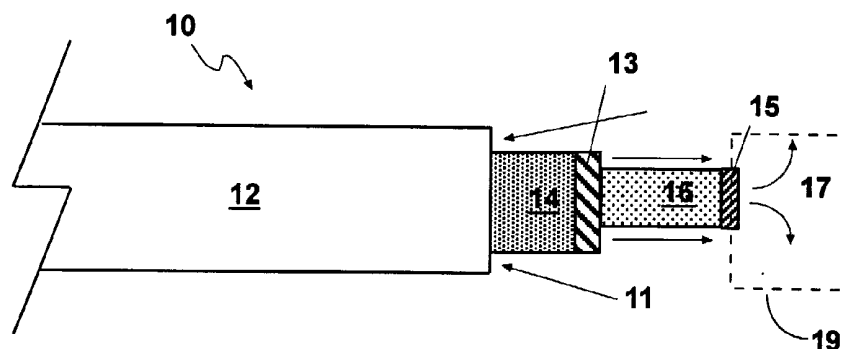
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(54) Title: PROTON GENERATING CATHETERS AND METHODS FOR THEIR USE



(57) Abstract: Catheter devices and methods are provided for enhancing fluid flow through a vascular site occupied by a calcified lesion. The catheter devices of the subject invention include, at their distal end, a proton generating device including a cathode (13) and an anode (15) mounted on a first tube (14) and a second tube (16).



WO 02/053203 A3

## INTERNATIONAL SEARCH REPORT

International application No.  
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## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :A61M 31/00

US CL :604/507; 128/898

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. : 604/507, 27, 28, 96.01, 022.002, 43, 508; 128/898

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)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,785,675 A (DRASLER et al) 28 July 1998, see entire document.	1-22
A	US 4,842,598 A (TRAN) 27 June 1989, see entire document.	1-22
A	US 5,222,971 A (WILLARD et al) 29 June 1993, see entire document.	1-22
A	US 5,354,295 A (GUGLIELMI et al) 11 October 1994, see entire document.	1-22

 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
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"G"	document member of the same patent family
"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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