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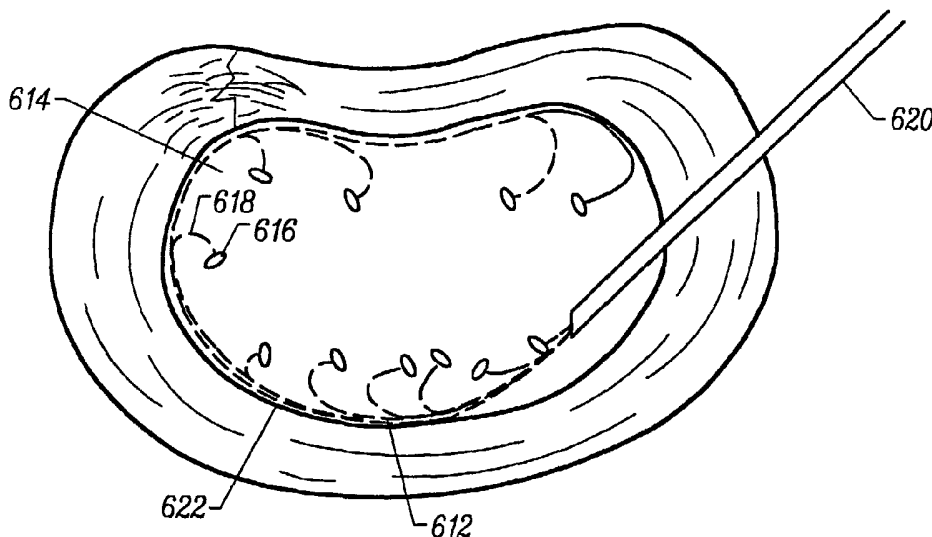
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US 09/876,831 (CON)  
Filed on 6 June 2001 (06.06.2001)
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[Continued on next page]

(54) Title: ELECTROMAGNETIC ENERGY DELIVERY INTERVERTEBRAL DISC TREATMENT DEVICES



(57) Abstract: An intervertebral disc device is provided comprising a distal probe sized to be extended from a distal end of an introducer that is percutaneously delivered into an interior of an intervertebral disc, a distal section of the probe comprising an active and return electrode which are each spirally wrapped around the probe such that there are multiple alternating bands of the same active and return positioned longitudinally along the length of the distal section of the probe, the active and return being adapted to deliver bipolar electromagnetic energy to tissue within the intervertebral disc; and a proximal handle for externally guiding the probe within an intervertebral disc.



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European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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*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.*

INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 02/17542

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61B18/14

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 7 A61B

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, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 023 638 A (SWANSON DAVID K) 8 February 2000 (2000-02-08) see ref sign 262 column 21, line 48-53; figure 28 page 12, line 45-53 column 28, line 15-20 column 30, line 19-31	1,2,11, 12,26,27
X	WO 99 47058 A (ASHLEY JOHN E ; SAAL JOEL (US); SAAL JEFFREY (US); SHARKEY HUGH R ( ) 23 September 1999 (1999-09-23) page 31, line 29 -page 32, line 6; figure 2A	1
A	US 5 433 739 A (COSMAN ERIC R ET AL) 18 July 1995 (1995-07-18) column 9, line 16-20 -column 3, line 53-57; figure 2	1
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "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
- "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.
- "&" document member of the same patent family

Date of the actual completion of the international search

5 December 2002

Date of mailing of the international search report

13. 12. 2002

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International Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 99 18878 A (SCIMED LIFE SYSTEMS INC) 22 April 1999 (1999-04-22) page 35, column 25-28 page 20, line 12-23; figure 9E page 40, line 6-12 figure 15 ---	17
X	WO 95 10225 A (EP TECHNOLOGIES) 20 April 1995 (1995-04-20) figure 10 ---	24
X	US 5 861 002 A (DESAI ASHVIN H) 19 January 1999 (1999-01-19) column 5, line 14-19 column 15, line 47-52 ---	25
A	US 5 762 626 A (LUNDQUIST INGEMAR H ET AL) 9 June 1998 (1998-06-09) column 16, line 22-45; figures 30,31 ---	25
A	US 5 910 129 A (FLEISCHMAN SIDNEY D ET AL) 8 June 1999 (1999-06-08) -----	

# INTERNATIONAL SEARCH REPORT

ational application No.  
PCT/US 02/17542

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-23,26,27

An intervertebral disk device with multiple bipolar band electrodes.

2. Claim : 24

An intervertebral disk device with a probe having electrodes on opposing sides

3. Claim : 25

An intervertebral disk device with electrodes bending away from each other

INTERNATIONAL SEARCH REPORT

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