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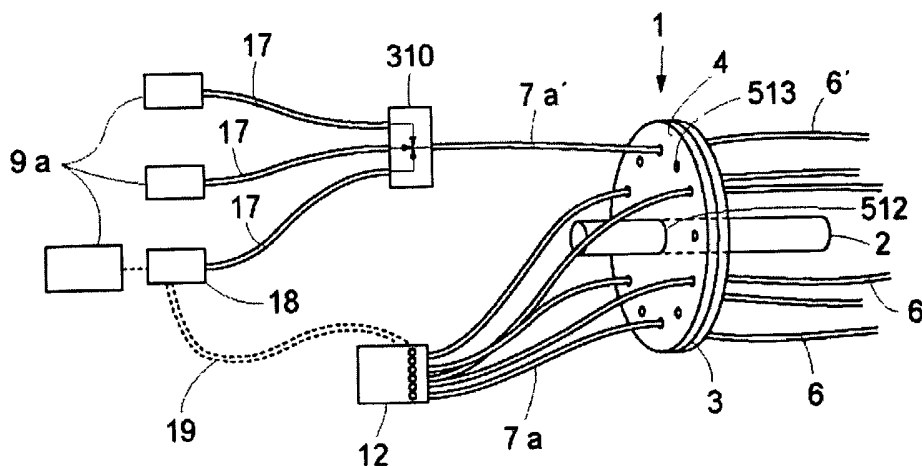
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- (71) Applicant (for all designated States except US): **SPECTRACURE AB** [SE/SE]; Ole Römersväg 16, S-223 70 Lund (SE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **JOHANSSON, Ann** [SE/SE]; Flygelvägen 123, S-224 72 Lund (SE). **ANDERSSON ENGELS, Stefan** [SE/SE]; Stormvägen 3, S-243 35 Höör (SE). **JOHANSSON, Thomas** [SE/SE]; Lorensborgsgatan 4 A, S-217 61 Malmö (SE). **PÅLSSON, Sara** [SE/SE]; Jägaregatan 152, S-226 53 Lund (SE). **SOTO THOMPSON, Marcelo** [SE/SE]; Kungsgatan 58 A, S-212 13 Malmö (SE). **SVANBERG, Katarina** [SE/SE]; Nicolovius väg 2, S-224 65 Lund (SE). **SVANBERG, Sune** [SE/SE]; Nicolovius Väg 2, S-224 65 Lund (SE).
- (74) Agent: **STRÖM & GULLIKSSON IPC AB**; P.O. Box 4188, S-203 13 Malmö (SE).
- (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, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
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[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR THERAPY AND DIAGNOSIS COMPRISING IN COMBINATION NON-MECHANICAL AND MECHANICAL DISTRIBUTORS FOR DISTRIBUTION OF RADIATION



(57) Abstract: A system and method for therapy and diagnosis of a human or animal. At least one coupling element for coupling of radiation couples radiation from at least a first radiation source to a tumour site and/or from said second radiation source to said site and/or from said site to a detector. The coupling elements are combinations of at least one translatory distributor, at least one rotary distributor, and at least one operation mode selector means for directing either said therapeutic radiation or said diagnostic radiation to said site through said at least one first radiation conductor. The system may be used for interactive interstitial photodynamic tumour therapy. The system and method according to the invention combines the advantages of purely mechanical and purely non-mechanical solutions in a new and synergetic way.

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European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, 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).

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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/SE 2004/000758

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: A61B 5/00, A61N 5/06 // A61B 5/22, G02B 26/08

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)

IPC7: A61B, A61N, G02B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0195375 A2 (MASSACHUSETTS INSTITUTE OF TECHNOLOGY), 24 Sept 1986 (24.09.1986), page 43 - page 44, line 13; page 45, line 16 - line 22; page 46, line 14 - page 47, line 22, page 48, line 6 - line 24; figures 12a, 12b, 19-22 --	1-27
X	WO 02074339 A1 (UNIVERSITY OF UTAH RESEARCH FOUNDATION), 26 Sept 2002 (26.09.2002), page 6, line 24 - page 7, line 7; page 8, line 8 - page 9, line 25, figures 15-21 --	1-27

 Further documents are listed in the continuation of Box C. See patent family 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 application or patent but published on or after the international filing date

"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)

"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

"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

"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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

30 August 2004

Date of mailing of the international search report

07 -09- 2004

Name and mailing address of the ISA/

Swedish Patent Office  
Box 5055, S-102 42 STOCKHOLM  
Facsimile No. +46 8 666 02 86

Authorized officer

Patrik Blidefalk /OGU  
Telephone No. +46 8 782 25 00

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 2004/000758

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0280397 A2 (ADAIR, E.L.), 31 August 1988 (31.08.1988), column 3, line 2 - line 11; column 4, line 14 - line 44; column 5, line 56 - column 7, line 6, column 9, line 23 - column 10, line 25; column 11, line 7 - line 19; figures 1-11  --	1-27
X	EP 0523417 A1 (ISOTOPEN-TECHNIK DR. SAUERWEIN GMBH), 20 January 1993 (20.01.1993), figures 1,2, abstract	1,2,6,16
A	--	3-5,7-15, 17-27
X	EP 1314451 A1 (NUCLETRON B.V.), 28 May 2003 (28.05.2003), paragraph [0055] - [0061]; figures 3a, 3b, 4, 6	1,3-10,12, 13,15-27
A	--	2,11,14
X	US 6416531 B2 (CHEN, J.C.), 9 July 2002 (09.07.2002), figure 1, abstract	1,6,7,18-27
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INTERNATIONAL SEARCH REPORT

International application No.  
**PCT/SE 2004/000758**

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 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.: **25-27**  
because they relate to subject matter not required to be searched by this Authority, namely:  
**see extra sheet**
  
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 No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

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

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.

INTERNATIONAL SEARCH REPORT

International application No.

**PCT/SE 2004/000758**

Claims 25-27 relate to a method of treatment of the human body by surgery or by therapy/ a diagnostic method practised on the human or animal body/Rule 39.1(iv). Nevertheless a search has been executed for this (these) claim(s). The search has been based on the alleged effects of the product/device.

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

31/07/2004

International application No.  
PCT/SE 2004/000758

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

31/07/2004

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