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[Continued on next page]

(54) Title: THERAPEUTIC APPARATUS

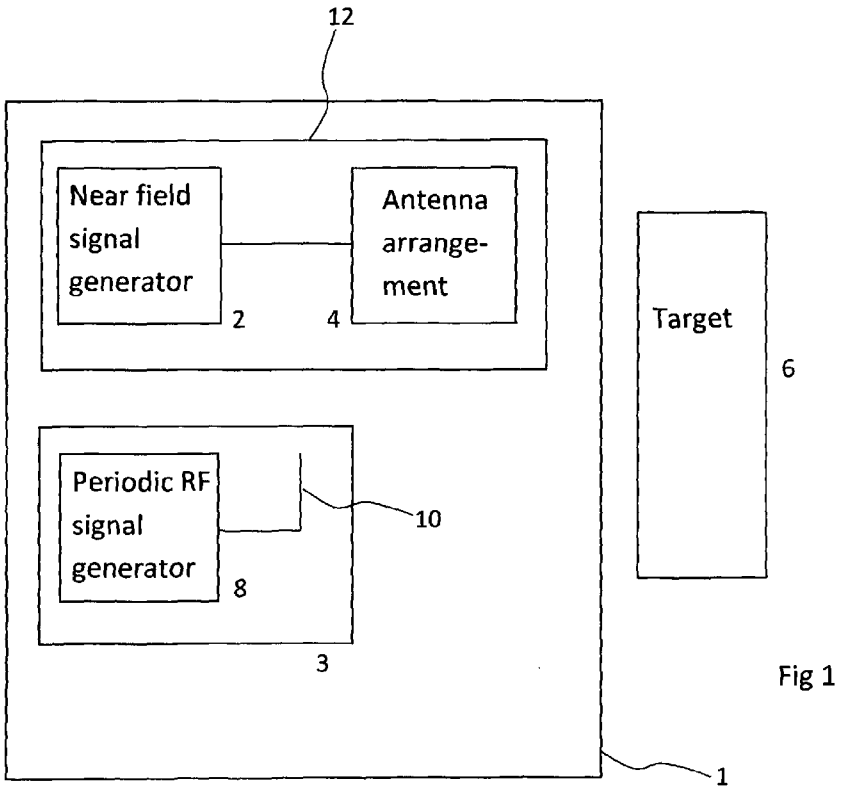

Fig 1

[Continued on next page]

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TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
20 December 2012

(57) Abstract: The invention relates to a therapeutic apparatus (1) for irradiating biological cells. The apparatus (1) comprising a near field generator (12) comprising an antenna (4) and a signal generator (2). The near field generator (12) being configured to generate a near field signal.

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2012/000318

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61N5/04 A61N1/40
ADD.

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)
A61N

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)
EPO-Internal, 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	WO 2004/084748 A1 (UNIV SYDNEY TECH [AU]; CHIU HENG-MAO [AU]; SANAGAVARAPU ANANDA MOHAN []) 7 October 2004 (2004-10-07) abstract; figures 1(a), 2(a),5-11 page 1, lines 6-8 page 3, lines 18-31 page 5, lines 4-7 page 6, lines 11-15 page 7, lines 10, 13 page 8, lines 3-18 page 10, lines 15-23 page 17, line 1 - page 23, line 6 -----	1,2,9
X	RU 2009 113486 A (FEDERAL NOE G UCHREZHDENIE ROSSIJSKIJ NTS KURCHATOVSKIJ INST [RU]) 20 October 2010 (2010-10-20) the whole document -----	1-8,21

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[X] Further documents are listed in the continuation of Box C.

[X] 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

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
28 September 2012	17/10/2012

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Molina Silvestre, A

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Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2012/000318

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. [X] Claims Nos.: 22-42
because they relate to subject matter not required to be searched by this Authority, namely:

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy

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:

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 fees, this Authority did not invite payment of additional fees.

3. [X] 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.:

1-14, 21

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 and, where applicable, the payment of a protest fee.

[ ] The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

[X] No protest accompanied the payment of additional search fees.

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	"ACR122U NFC READER - Application Programming Interface - Version 1.4", , 5 July 2010 (2010-07-05), XP55032890, Retrieved from the Internet: URL:http://web.archive.org/web/20100705054343/http://www.acs.com.hk/drivers/eng/API_ACR122U_v1.4.pdf [retrieved on 2012-07-16]	1,2, 10-14
A	the whole document	3-8,21

X	"ACR122U NFC READER -Technical Specifications - Version 2.6", , 5 July 2010 (2010-07-05), XP55032892, Retrieved from the Internet: URL:http://web.archive.org/web/20100705054519/http://www.acs.com.hk/drivers/eng/TSP_ACR122U_v2.6.pdf [retrieved on 2012-07-16]	1,2, 10-14
A	the whole document	3-8,21

A	"Information technology Telecommunications and information exchange between systems Near Field Communication Interface and Protocol (NFCIP-1) = Technologies de l'information Telecommunications et echange d'information entre systemes Communication de champ proche Interface et protocole (NFCIP-1)", INTERNATIONAL STANDARD ISO/IEC, XX, XX, vol. 18092, no. 1st edition, 1 April 2004 (2004-04-01), page 66PP, XP007905654, the whole document	1-14,21

A	EP 2 174 689 A1 (ONCOTHERM KFT [HU]) 14 April 2010 (2010-04-14) the whole document	1-14,21

A	WO 2007/027620 A1 (THERM MED LLC [US]; KANZIUS JOHN [US]) 8 March 2007 (2007-03-08) the whole document	1-14,21

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/GB2012/000318

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2004084748 A1	07-10-2004	AT 486538 T	15-11-2010
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		JP 2009505795 A	12-02-2009
		US 2007250139 A1	25-10-2007
		WO 2007027620 A1	08-03-2007

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-9, 21

   A therapeutic apparatus for irradiating biological cells comprising a near field generator having an antenna and a near field signal generator, the near field signal comprising a carrier signal and a modulating signal each being within specific frequency ranges.

   ---

2. claims: 10-14

   A therapeutic apparatus for irradiating biological cells comprising a near field generator having an antenna and a near field signal generator, the near field signal comprising a carrier signal and a modulating signal (not necessarily within specific frequency ranges) and wherein the frequency and / or duty cycle of the modulating signal varies with a period in a specific range.

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3. claims: 15, 16

   A therapeutic apparatus for irradiating biological cells comprising a near field generator having an antenna and a near field signal generator, the near field signal not necessarily being modulated and having a specific field strength.

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4. claims: 17, 18

   A therapeutic apparatus for irradiating biological cells comprising a near field generator having an antenna and a near field signal generator, the near field signal not necessarily being modulated, the apparatus further comprising an RF signal generator for irradiating the cells in addition to the near field signal.

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5. claims: 19, 20

   A therapeutic apparatus for irradiating biological cells comprising a near field generator having an antenna and a near field signal generator, the near field signal not necessarily being modulated, the apparatus further comprising means for controlling the radiation pattern.
