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[Continued on next page]

(54) Title: ABLATION DEVICE WITH GUIDE SLEEVES

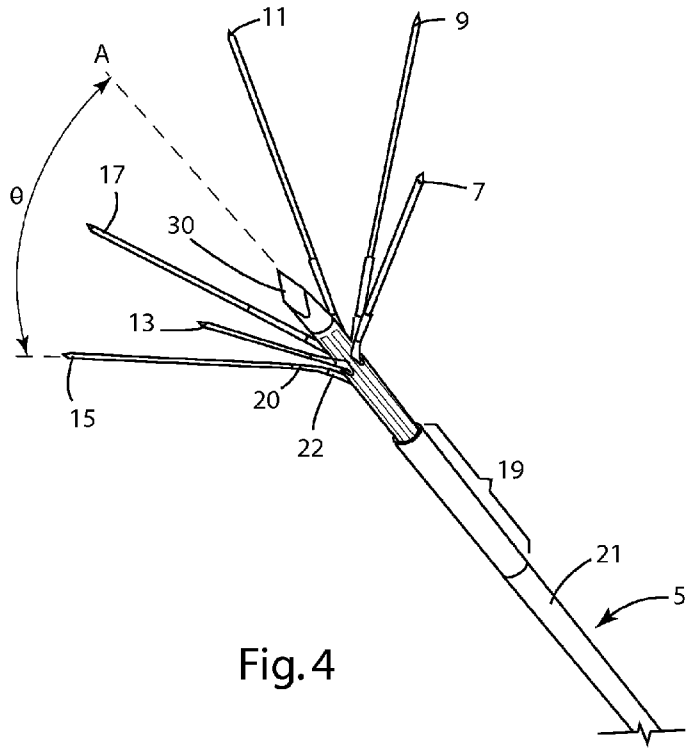

Fig. 4

(57) Abstract: An energy delivery device for treating a patient includes a probe body; a plurality of guide sleeves positioned inside the probe body and adapted to be deployed radially away from the probe body and into tissue of the patient; and a plurality of elongate electrode elements each adapted to receive electrical treatment energy from an energy source and adapted to be deployed into the tissue through a corresponding deployed guide sleeve. The guide sleeves provide a structural pathway for guiding the electrodes along their intended trajectory and for determining the angle of deployment of the electrodes relative to the longitudinal axis of the probe body.

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Published:

— *with international search report (Art. 21(3))*

— *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))*

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8 December 2011

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

A61B 18/14(2006.01)i, A61B 18/18(2006.01)i, A61B 17/3205(2006.01)i

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 18/14; A61B 18/04; A61B 17/39; A61B 18/18

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: ablation, guide sleeve, energy delivery, electrode, probe

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	EP 0908156 A1 (RITA MEDICAL SYSTEMS, INC.) 14 April 1999 See paragraphs 36, 40; figs. 1, 2, 16; claims 1, 7, 8, 12, 20.	1,5-7,10,15-17 2-4,8-9,11-14 ,18-29
X A	US 6059780 A (GOUGH, EDWARD J. et al.) 09 May 2000 See abstract; column 3, line 65- column 4, line 20; column 5, lines 15-29; fi gs. 1-5.	23-27 1-22,28-29
A	US 7449019 B2 (UCHIDA, ANDY H. et al.) 11 November 2008 See column 5, lines 5-12; column 13, lines 53-58; column 14, lines 27-38; col umn 16, lines 37-40; figs. 6-10, 14, 17; claims 1, 18, 21.	1-29

☐ 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
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"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
18 OCTOBER 2011 (18.10.2011)	**18 OCTOBER 2011 (18.10.2011)**

Name and mailing address of the ISA/KR
Korean Intellectual Property Office
Government Complex-Daejeon, 189 Cheongsa-ro,
Seo-gu, Daejeon 302-701, Republic of Korea
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Authorized officer
KANG, HEE GOK
Telephone No. 82-42-481-8264

INTERNATIONAL SEARCH REPORT

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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.: 30-39
because they relate to subject matter not required to be searched by this Authority, namely:
Claims 30-39 pertain to method for treatment of human body by surgery or therapy, and thus relate to a subject matter which this International Searching Authority is not required to search under Article 17(2)(a)(i) of the PCT and Rule 39.1(iv) of the Regulations under the PCT.

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 addtional 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 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.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/024909

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0908156 A1	14.04.1999	AT 180649 T	15.06.1999
		AT 253871 T	15.11.2003
		AT 352263 T	15.02.2007
		AU 1999-13720 A1	24.05.1999
		AU 1999-14526 A1	07.06.1999
		AU 1999-60247 A1	27.03.2000
		AU 1999-62419 A1	27.03.2000
		CN 1125620 C0	29.10.2003
		CN 1159154 A	10.09.1997
		CN 1159154 A0	10.09.1997
		CN 1211171 A0	17.03.1999
		DE 69510064 D1	08.07.1999
		DE 69510064 T2	23.12.1999
		DE 69510064 T3	07.04.2005
		DE 69532140 D1	18.12.2003
		DE 69532140 T2	26.08.2004
		DE 69535379 D1	15.03.2007
		DE 69535379 T2	03.01.2008
		DK 1366725 T3	29.05.2007
		EP 0777445 A1	10.02.1999
		EP 0777445 B1	02.06.1999
		EP 0777445 B2	02.01.2004
		EP 0850024 A1	30.07.2003
		EP 0850024 B1	29.10.2003
		EP 0851743 A1	07.04.2004
		EP 0851743 B1	24.11.2010
		EP 0883379 A1	16.04.2003
		EP 0891158 A1	20.01.1999
		EP 0891158 B1	22.09.2004
		EP 0908156 B1	12.11.2003
		EP 0957988 A2	26.05.2004
		EP 0957988 B1	15.12.2004
		EP 1109504 A2	27.06.2001
		EP 1109504 B1	13.05.2009
		EP 1109505 A1	27.06.2001
		EP 1344497 A1	17.09.2003
		EP 1366725 A1	03.12.2003
		EP 1366725 B1	24.01.2007
		EP 1598025 A2	23.11.2005
		EP 1598025 A3	02.08.2006
		ES 2132698 T3	16.08.1999
		ES 2132698 T5	01.07.2004
		ES 2279043 T3	16.08.2007
		HK 1002098 A1	24.03.2000
		JP 03009735 B2	03.12.1999
		JP 03560917 B2	02.09.2004
		JP 04001210 B2	31.10.2007
		JP 04191897 B2	03.12.2008
		JP 10-503959 A	14.04.1998

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/024909

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		JP 11-511988 A	19.10.1999
		JP 11-511991 A	19.10.1999
		JP 11-511992 A	19.10.1999
		JP 2000-500033 A	11.01.2000
		JP 2000-506415 A	30.05.2000
		JP 2000-507844 A	27.06.2000
		JP 2001-231790 A	28.08.2001
		JP 2002-524129 A	06.08.2002
		JP 2002-524130 A	06.08.2002
		JP 2007-125414 A	24.05.2007
		KR 10-0243503 B1	02.03.2000
		KR 10-0243744 B1	02.03.2000
		KR 10-1997-0706864 A	01.12.1997
		KR 10-1997-0706866 A	01.12.1997
		KR 10-1999-0082587 A	25.11.1999
		KR 10-1999-0087805 A	27.12.1999
		PT 1366725 E	30.03.2007
		TW 402498 A	21.08.2000
		TW 402498 B	21.08.2000
		TW 446566 A	21.07.2001
		TW 446566 B	21.07.2001
		US 2001-0001819 A1	24.05.2001
		US 2002-0026185 A1	28.02.2002
		US 2002-0035363 A1	21.03.2002
		US 2004-0181217 A1	16.09.2004
		US 2004-0260282 A1	23.12.2004
		US 2005-0033279 A1	10.02.2005
		US 2005-0101950 A1	12.05.2005
		US 2005-0203503 A1	15.09.2005
		US 2006-0247616 A1	02.11.2006
		US 2008-0154259 A1	26.06.2008
		US 2008-0167649 A1	10.07.2008
		US 6235023 B1	22.05.2001
		US 6330478 B1	11.12.2001
		US 6471698 B1	29.10.2002
		US 6500175 B1	31.12.2002
		US 6551311 B2	22.04.2003
		US 6569159 B1	27.05.2003
		US 6605085 B1	12.08.2003
		US 6632221 B1	14.10.2003
		US 6641580 B1	04.11.2003
		US 6652516 B1	25.11.2003
		US 6660002 B1	09.12.2003
		US 6663624 B2	16.12.2003
		US 6689127 B1	10.02.2004
		US 6958062 B1	25.10.2005
		US 7150744 B2	19.12.2006
		WO 00-13602 A2	16.03.2000
		WO 00-13602 A3	16.03.2000
		WO 00-13603 A1	16.03.2000

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/024909

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		WO 95-13113 A1	18.05.1995
		WO 96-04860 A1	22.02.1996
		WO 97-06739 A2	27.02.1997
		WO 97-06740 A2	27.02.1997
		WO 97-06855 A2	27.02.1997
		WO 97-06857 A2	27.02.1997
		WO 97-29702 A1	21.08.1997
		WO 97-33524 A1	18.09.1997
		WO 97-36548 A1	09.10.1997
		WO 99-22657 A1	14.05.1999
		WO 99-25260 A1	27.05.1999
US 6059780 A	09.05.2000	AU 1999-13720 A1	24.05.1999
		AU 1999-14526 A1	07.06.1999
		AU 1999-60247 A1	27.03.2000
		AU 1999-62419 A1	27.03.2000
		CN 1125620 C0	29.10.2003
		CN 1159154 A	10.09.1997
		CN 1159154 A0	10.09.1997
		CN 1211171 A0	17.03.1999
		EP 0777445 A1	10.02.1999
		EP 0777445 B1	02.06.1999
		EP 0777445 B2	02.01.2004
		EP 0850024 A1	30.07.2003
		EP 0850024 B1	29.10.2003
		EP 0851743 A1	07.04.2004
		EP 0851743 B1	24.11.2010
		EP 0883379 A1	16.04.2003
		EP 0891158 A1	24.03.2004
		EP 0891158 B1	22.09.2004
		EP 0908156 A1	14.04.1999
		EP 0908156 B1	12.11.2003
		EP 0957988 A2	26.05.2004
		EP 0957988 B1	15.12.2004
		EP 1109504 A2	27.06.2001
		EP 1109504 B1	13.05.2009
		EP 1109505 A1	27.06.2001
		EP 1344497 A1	17.09.2003
		EP 1366725 A1	03.12.2003
		EP 1366725 B1	24.01.2007
		EP 1598025 A2	23.11.2005
		EP 1598025 A3	02.08.2006
		JP 03009735 B2	03.12.1999
		JP 03560917 B2	02.09.2004
		JP 04001210 B2	31.10.2007
		JP 04191897 B2	03.12.2008
		JP 10-503959 A	14.04.1998
		JP 11-511988 A	19.10.1999
		JP 11-511991 A	19.10.1999
		JP 11-511992 A	19.10.1999

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/024909

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		JP 2000-500033 A	11.01.2000
		JP 2000-506415 A	30.05.2000
		JP 2000-507844 A	27.06.2000
		JP 2001-231790 A	28.08.2001
		JP 2002-524129 A	06.08.2002
		JP 2002-524130 A	06.08.2002
		JP 2007-125414 A	24.05.2007
		KR 10-0243503 B1	02.03.2000
		KR 10-0243744 B1	02.03.2000
		KR 10-1997-0706864 A	01.12.1997
		KR 10-1997-0706866 A	01.12.1997
		KR 10-1999-0082587 A	25.11.1999
		KR 10-1999-0087805 A	27.12.1999
		TW 402498 A	21.08.2000
		TW 402498 B	21.08.2000
		TW 446566 A	21.07.2001
		TW 446566 B	21.07.2001
		US 2001-0001819 A1	24.05.2001
		US 2002-0026185 A1	28.02.2002
		US 2002-0035363 A1	21.03.2002
		US 2004-0181217 A1	16.09.2004
		US 2004-0260282 A1	23.12.2004
		US 2005-0033279 A1	10.02.2005
		US 2005-0101950 A1	12.05.2005
		US 2005-0203503 A1	15.09.2005
		US 2006-0247616 A1	02.11.2006
		US 2008-0154259 A1	26.06.2008
		US 2008-0167649 A1	10.07.2008
		US 6235023 B1	22.05.2001
		US 6330478 B1	11.12.2001
		US 6471698 B1	29.10.2002
		US 6500175 B1	31.12.2002
		US 6551311 B2	22.04.2003
		US 6569159 B1	27.05.2003
		US 6605085 B1	12.08.2003
		US 6632221 B1	14.10.2003
		US 6641580 B1	04.11.2003
		US 6652516 B1	25.11.2003
		US 6660002 B1	09.12.2003
		US 6663624 B2	16.12.2003
		US 6689127 B1	10.02.2004
		US 6958062 B1	25.10.2005
		US 7150744 B2	19.12.2006
		WO 00-13602 A2	16.03.2000
		WO 00-13602 A3	16.03.2000
		WO 00-13603 A1	16.03.2000
		WO 95-13113 A1	18.05.1995
		WO 96-04860 A1	22.02.1996
		WO 97-06739 A2	27.02.1997
		WO 97-06740 A2	27.02.1997

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/024909

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		WO 97-06855 A2	27.02.1997
		WO 97-06857 A2	27.02.1997
		WO 97-29702 A1	21.08.1997
		WO 97-33524 A1	18.09.1997
		WO 97-36548 A1	09.10.1997
		WO 99-22657 A1	14.05.1999
		WO 99-25260 A1	27.05.1999
US 7449019 B2	11.11.2008	AU 1995-24321 B2	20.01.2000
		AU 1998-57929 B2	23.01.2003
		AU 1998-63327 A1	30.08.1999
		AU 1999-31049 A1	11.10.1999
		AU 2000-36964 A1	04.09.2000
		AU 2000-36964 B2	27.02.2003
		AU 2000-54621 A1	31.01.2001
		AU 2001-243264 B2	02.02.2006
		AU 2001-43264 A1	03.09.2001
		AU 2002-246952 B2	30.11.2006
		AU 2003-231734 A1	29.03.2004
		AU 2003-248461 A1	17.03.2005
		AU 2003-248461 B2	24.02.2011
		CA 2273083 A1	14.01.1999
		CA 2362276 A1	24.08.2000
		CA 2399933 A1	30.08.2001
		CA 2433396 A1	01.08.2002
		CA 2438913 A1	17.09.2004
		CA 2449375 A1	12.12.2002
		CA 2449379 A1	12.12.2002
		CA 2449454 A1	12.12.2002
		CN 1371259 A0	25.09.2002
		EP 0760626 A1	26.09.2001
		EP 0760626 B1	26.09.2001
		EP 0820096 A2	21.01.1998
		EP 0820096 A3	30.08.2000
		EP 0820096 B1	17.02.2010
		EP 0977563 A1	09.02.2000
		EP 0977563 B1	12.10.2005
		EP 0998331 A1	10.05.2000
		EP 1006885 A2	14.06.2000
		EP 1006885 B1	20.09.2006
		EP 1006908 A2	14.06.2000
		EP 1063931 A2	03.01.2001
		EP 1152701 A2	14.11.2001
		EP 1191892 A1	03.04.2002
		EP 1191892 B1	12.07.2006
		EP 1259167 A2	27.11.2002
		EP 1259167 B1	02.11.2005
		EP 1357848 A2	05.11.2003
		EP 1357848 A4	27.07.2005
		EP 1357848 B1	11.03.2009

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/024909

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		EP 1386922 A2	04.02.2004
		EP 1386922 A3	07.04.2004
		EP 1395178 A2	10.03.2004
		EP 1395188 A2	10.03.2004
		EP 1395188 B1	13.09.2006
		EP 1395188 B9	14.02.2007
		EP 1397081 A1	17.03.2004
		EP 1459691 A1	22.09.2004
		EP 1459692 A1	22.09.2004
		JP 03741725 B2	01.02.2006
		JP 04195294 B2	10.12.2008
		JP 04579351 B2	03.09.2010
		JP 04638100 B2	03.12.2010
		JP 10-022462 A	23.01.1998
		JP 10-504732 A	12.05.1998
		JP 2001-501505 A	06.02.2001
		JP 2001-507716 A	12.06.2001
		JP 2001-511048 A	07.08.2001
		JP 2002-506672 A	05.03.2002
		JP 2002-515793 A	28.05.2002
		JP 2002-515801 A	28.05.2002
		JP 2003-503097 A	28.01.2003
		JP 2003-523258 A	05.08.2003
		JP 2004-523279 A	05.08.2004
		JP 2004-528132 A	16.09.2004
		JP 2004-528133 A	16.09.2004
		JP 2004-528927 A	24.09.2004
		JP 2005-334663 A	08.12.2005
		JP 2009-119280 A	04.06.2009
		JP 2009-298816 A	24.12.2009
		KR 10-0302414 B1	22.11.2001
		KR 10-0330782 B1	13.08.2002
		KR 10-0342313 B1	02.07.2002
		KR 10-0387902 B1	18.06.2003
		TW 504511 A	01.10.2002
		TW 504511 B	01.10.2002
		US 2001-0023347 A1	20.09.2001
		US 2001-0023348 A1	20.09.2001
		US 2001-0031963 A1	18.10.2001
		US 2002-0002194 A1	03.01.2002
		US 2002-0019626 A1	14.02.2002
		US 2002-0022830 A1	21.02.2002
		US 2002-0058286 A1	16.05.2002
		US 2002-0058817 A1	16.05.2002
		US 2002-0188284 A1	12.12.2002
		US 2002-0188291 A1	12.12.2002
		US 2002-0188292 A1	12.12.2002
		US 2003-0014050 A1	16.01.2003
		US 2003-0032954 A1	13.02.2003
		US 2003-0069277 A1	10.04.2003

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/024909

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		US 2003-0105330 A1	05.06.2003
		US 2003-0125362 A1	03.07.2003
		US 2003-0171596 A1	11.09.2003
		US 2003-0181964 A1	25.09.2003
		US 2003-0208080 A1	06.11.2003
		US 2003-0230784 A1	18.12.2003
		US 2004-0019089 A1	29.01.2004
		US 2004-0044221 A1	04.03.2004
		US 2004-0102495 A1	27.05.2004
		US 2004-0102824 A1	27.05.2004
		US 2004-0111136 A1	10.06.2004
		US 2004-0111137 A1	10.06.2004
		US 2004-0127963 A1	01.07.2004
		US 2004-0193151 A1	30.09.2004
		US 2004-0260098 A1	23.12.2004
		US 2005-0033059 A1	10.02.2005
		US 2005-0043376 A1	24.02.2005
		US 2005-0187599 A1	25.08.2005
		US 2006-0047331 A1	02.03.2006
		US 2008-0004450 A1	03.01.2008
		US 2008-0039908 A1	14.02.2008
		US 2008-0039909 A1	14.02.2008
		US 2008-0051859 A1	28.02.2008
		US 2008-0058707 A1	06.03.2008
		US 2008-0058910 A1	06.03.2008
		US 2008-0091252 A1	17.04.2008
		US 2008-0108940 A1	08.05.2008
		US 2008-0114332 A1	15.05.2008
		US 2008-0262583 A1	23.10.2008
		US 2010-0240721 A1	23.09.2010
		US 6168593 B1	02.01.2001
		US 6204388 B1	20.03.2001
		US 6242469 B1	05.06.2001
		US 6255704 B1	03.07.2001
		US 6258086 B1	10.07.2001
		US 6261311 B1	17.07.2001
		US 6277116 B1	21.08.2001
		US 6284781 B1	04.09.2001
		US 6290715 B1	18.09.2001
		US 6300355 B1	09.10.2001
		US 6316630 B1	13.11.2001
		US 6369234 B1	09.04.2002
		US 6391028 B1	21.05.2002
		US 6461357 B1	08.10.2002
		US 6482204 B1	19.11.2002
		US 6517568 B1	11.02.2003
		US 6547810 B1	15.04.2003
		US 6573577 B1	03.06.2003
		US 6603023 B2	05.08.2003
		US 6645203 B2	11.11.2003

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/024909

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		US 6656961 B2	02.12.2003
		US 6699244 B2	02.03.2004
		US 6723854 B2	20.04.2004
		US 6726685 B2	27.04.2004
		US 6733496 B2	11.05.2004
		US 6749605 B2	15.06.2004
		US 6767347 B2	27.07.2004
		US 6828340 B2	07.12.2004
		US 6832997 B2	21.12.2004
		US 6849651 B2	01.02.2005
		US 6867305 B2	15.03.2005
		US 6878155 B2	12.04.2005
		US 6927463 B2	09.08.2005
		US 6965034 B2	15.11.2005
		US 6972335 B2	06.12.2005
		US 6997941 B2	14.02.2006
		US 7069087 B2	27.06.2006
		US 7267683 B2	11.09.2007
		US 7282061 B2	16.10.2007
		US 7309336 B2	18.12.2007
		US 7400930 B2	15.07.2008
		US 7647123 B2	12.01.2010
		US 7750164 B2	06.07.2010
		US 7896909 B2	01.03.2011
		US E041990 E1	07.12.2010
		WO 00-48644 A2	24.08.2000
		WO 00-48644 A3	24.08.2000
		WO 01-00099 A1	04.01.2001
		WO 01-62168 A2	30.08.2001
		WO 01-62168 A3	30.08.2001
		WO 02-058545 A2	01.08.2002
		WO 02-058545 A3	01.08.2002
		WO 02-098300 A2	12.12.2002
		WO 02-098300 A3	12.12.2002
		WO 95-30373 A1	16.11.1995
		WO 98-11944 A1	26.03.1998
		WO 98-17190 A2	30.04.1998
		WO 98-34549 A1	13.08.1998
		WO 98-34558 A2	13.08.1998
		WO 99-01124 A1	14.01.1999
		WO 99-40969 A1	19.08.1999
		WO 99-47058 A2	23.09.1999