



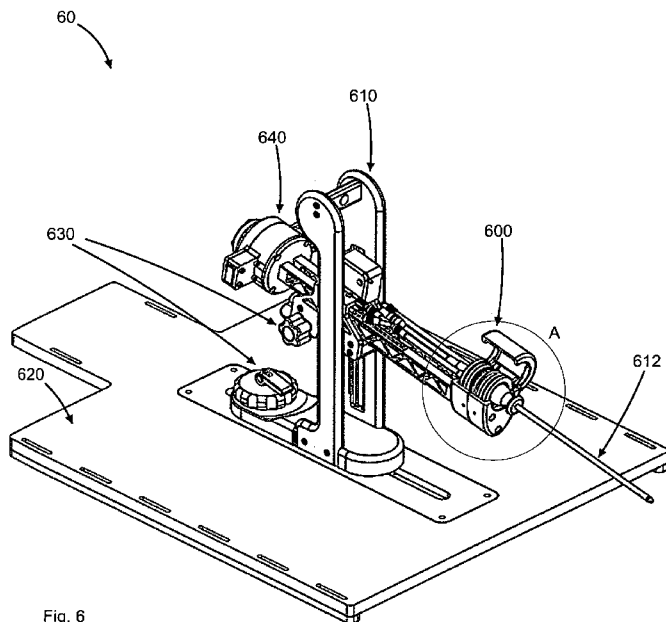
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[Continued on next page]

(54) **Title:** MRI-COMPATIBLE MOTOR AND POSITIONING SYSTEM



(57) **Abstract:** A thermal therapy system is provided. The system includes an applicator and a device for supporting and moving the applicator within a patient's body during therapy. Some embodiments include an elongated ultrasound energy applicator that is positioned using a plurality of positioners along a corresponding plurality of axes. Also, a rotational driver or motor is provided to rotate the thermal therapy applicator in the patient's body during treatment. The apparatus is constructed of magnetically-compatible materials and has a design to avoid or minimize interference between the drive components of the apparatus and a MRI imaging system in use during the treatment.



— *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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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 11/00462

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61B 5/05 (2011.01)

USPC - 600/411

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(8): A61B 6/05 (2011.01)

USPC: 600/411

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

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

USPTO PubWEST (PGPB,USPT,EPAB,JPAB), Google (Scholar)

Keywords: mri, magnetic, resonan\$4, therap\$4, therapeutic\$4, heat\$4, thermal\$4, motor, piezoelectric\$4, ceramic\$4, thrust\$4, roller, gear\$4, collar, liquid, gas, fluid, connect\$4, circuit\$4, control\$6, servomechanism, servo

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----- Y	US 2009/0171185 A1 (CHOU, et al.) 02 July 2009 (02.07.2009), [Abstract]; para [0005], [0028], [0039]-[0051]; Figs. 1-2C	1-5, 11, 13, 14, 16 ----- 6-10, 12, 15
Y	US 2008/0242970 A1 (MINAGAWA, et al.) 02 October 2008 (02.10.2008), para [0022], [0029], [0032]	6, 15
Y	US 6,432,067 B1 (MARTIN, et al.) 13 August 2002 (13.08.2002), [Abstract]; col 17, ln 26-41; Fig. 14	7-10
Y	US 2005/0154431 A1 (QUISTGAARD, et al.) 14 July 2005 (14.07.2005), [Abstract]; para [0062], [0063], [0153]; Fig. 2; Claim 10	8-10, 12

 Further documents are listed in the continuation of Box C.

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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

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