

Title (en)

METHOD OF MAGNETIC RESONANCE IMAGING AND SPECTROSCOPIC ANALYSIS AND ASSOCIATED APPARATUS

Title (de)

VERFAHREN ZUR MAGNETISCHEN RESONANZBILDGEBUNG UND SPEKTROSKOPISCHEN ANALYSE UND DAMIT VERBUNDENES GERÄT

Title (fr)

PROCEDE D'IMAGERIE PAR RESONANCE MAGNETIQUE ET D'ANALYSE SPECTROSCOPIQUE, ET APPAREIL ASSOCIE

Publication

**EP 1207784 A4 20060705 (EN)**

Application

**EP 00950723 A 20000726**

Priority

- US 0020346 W 20000726
- US 36014499 A 19990726

Abstract (en)

[origin: WO0106925A1] The invention provides a method for magnetic resonance imaging, and spectroscopic analysis of a specimen which includes positioning the specimen within a main magnetic field, introducing an antenna having a non-loop antenna portion (22) in close proximity to the specimen. Radio frequency pulses are provided to the region of interest to excite magnetic resonance signals. Gradient magnetic pulses are applied to the region of interest with the antenna receiving magnetic resonance signals, and emitting responsive output signals. A processor processes the responsive output signals to provide image information for display in a desired manner. The method in the preferred form employs a flexible antenna. The method in another preferred form involves employing an impedance matching circuit (30) electrically interposed between the non-loop antenna, and the processor to enhance radio frequency power transfer; and magnetic resonance signal to noise ratio from the non-loop antenna (22) to the processor.

IPC 1-7

**A61B 5/055**; **G01R 33/34**

IPC 8 full level

**G01R 33/34** (2006.01); **G01R 33/36** (2006.01)

CPC (source: EP)

**G01R 33/34084** (2013.01); **G01R 33/341** (2013.01); **G01R 33/3628** (2013.01)

Citation (search report)

- [X] WO 9740396 A1 19971030 - UNIV JOHNS HOPKINS [US]
- [X] OGAN OCALI ET AL: "INTRAVASCULAR MAGNETIC RESONANCE IMAGING USING A LOOPLESS CATHETER ANTENNA", MAGNETIC RESONANCE IN MEDICINE, ACADEMIC PRESS, DULUTH, MN, US, vol. 37, no. 1, January 1997 (1997-01-01), pages 112 - 118, XP000636879, ISSN: 0740-3194
- [X] SHUNK K A ET AL: "Transesophageal magnetic resonance imaging", MAGNETIC RESONANCE IN MEDICINE WILEY USA, vol. 41, no. 4, April 1999 (1999-04-01), pages 722 - 726, XP002377548, ISSN: 0740-3194
- See references of WO 0106925A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**WO 0106925 A1 20010201**; AU 6378700 A 20010213; EP 1207784 A1 20020529; EP 1207784 A4 20060705

DOCDB simple family (application)

**US 0020346 W 20000726**; AU 6378700 A 20000726; EP 00950723 A 20000726