

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
20 September 2001 (20.09.2001)

PCT

(10) International Publication Number
WO 01/69277 A3

(51) International Patent Classification⁷: **G01R 33/3415**,
33/56

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(21) International Application Number: PCT/US01/07728

(81) Designated States (*national*): AU, CA, JP.

(22) International Filing Date: 12 March 2001 (12.03.2001)

(84) Designated States (*regional*): European patent (AT, BE,
CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
NL, PT, SE, TR).

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/524,217 14 March 2000 (14.03.2000) US

Published:
— with international search report

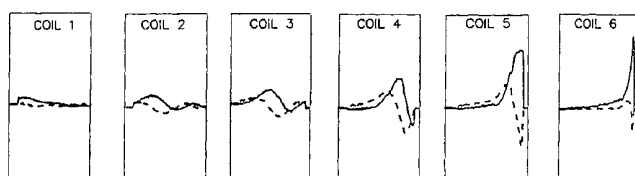
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(88) Date of publication of the international search report:
27 June 2002

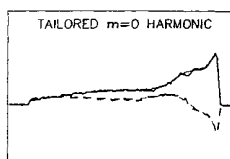
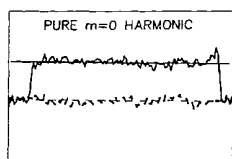
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For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

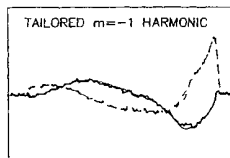
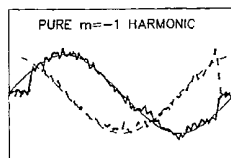
(54) Title: PARALLEL MAGNETIC RESONANCE IMAGING TECHNIQUES USING RADIOFREQUENCY COIL ARRAYS



a



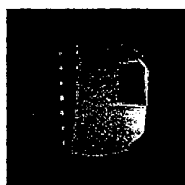
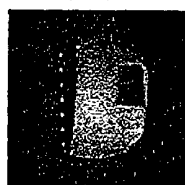
b



c

PURE $m=(0 -1)$ HARMONICS

TAILORED $m=(0 -1)$ HARMONICS



d

(57) Abstract: A magnetic resonance image is formed by measuring RF signals in an array of RF coils, forming a set of spatial harmonics and tailoring the set of spatial harmonics to form a set of tailored spatial harmonics that are adjusted variations in at least one of angulation of an image plane, field of view, and coils sensitivity calibration. The magnetic resonance image may also be formed by generating a set of encoding functions representative a spatial distribution of receiver coil sensitivities and spatial modulations corresponding to the gradient encoding steps, transforming the set of encoding functions to generate a new set of functions representative of distinct spatial positions in the image, and applying the new set of functions to a set of MR signals to form the magnetic resonance image. Matrices inverted during the process of forming the magnetic resonance image may be conditioned by thresholding the eigenvalues of the matrix prior to inversion.



WO 01/69277 A3

Internal Application No
PCT/US 01/07728

According to International Patent Classification (IPC) or to both national classification and IPC

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G01R

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

EPO-Internal, WPI Data, INSPEC, PAJ, MEDLINE, BIOSIS, COMPENDEX

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	SODICKSON D K ET AL: "SIMULTANEOUS ACQUISITIONS OF SPATIAL HARMONICS (SMASH): FAST IMAGING WITH RADIOFREQUENCY COIL ARRAYS" MAGNETIC RESONANCE IN MEDICINE, ACADEMIC PRESS, DULUTH, MN, US, vol. 38, no. 4, 1 October 1997 (1997-10-01), pages 591-603, XP000720010 ISSN: 0740-3194 * see the whole document *	1,3-8, 54,56-59
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☒ Further documents are listed in the continuation of box C.

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Date of the actual completion of the international search

28 August 2001

Date of mailing of the international search report

12/09/2001

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INTERNATIONAL SEARCH REPORT

Internal Application No

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