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Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

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

[Continued on next page]

(54) **Title**: MAGNETOENCEPHALOGRAPHY SOURCE IMAGING

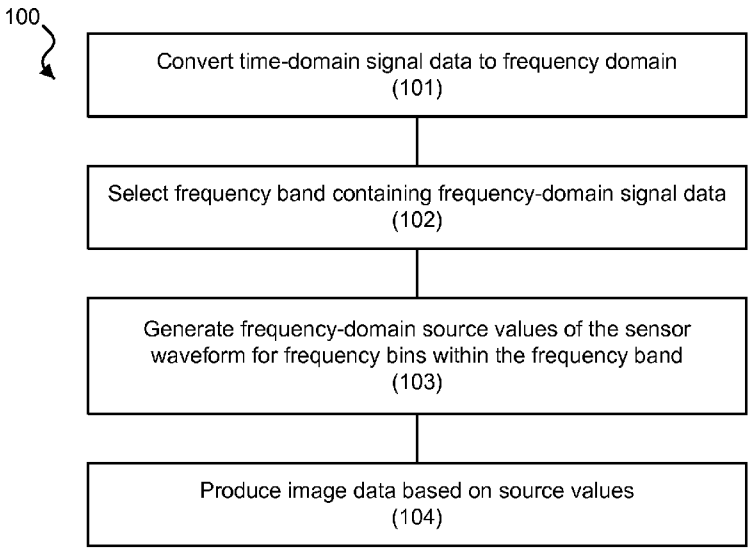


FIG. 1A

(57) **Abstract**: Techniques, devices and systems are disclosed for magnetoencephalography (MEG) source imaging. In one aspect, a method includes selecting signal data associated with one or more frequency bands from a spectrum of the signal data in the frequency domain, in which the signal data represents magnetic signals emitted by a brain of a subject and detected by a plurality of sensors outside the brain, defining locations of sources within the brain that generate the magnetic signals, in which the number of locations of the sources is selected to be greater than the number of sensors, and generating a source value of signal power based on the selected signal data corresponding to a respective location of the locations at the one or more frequencies.

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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))*

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INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

A61B 5/0476(2006.01)i, A61B 5/055(2006.01)i, G06F 19/00(2011.01)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 5/0476; A61B 5/05; H04N 5/21; G06K 9/00; G01D 1/14

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: MEG, source, location, frequency, convariance matrix

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2005-0007091 A1 (MAKEIG SCOTT et al.) 13 January 2005 See abstract, paragraphs [0049]-[0050],[0093],[0097]-[0107],[0112]-[0113], [0116]-[0122], claims 1-3,10, and figures 1-5.	1-34
A	US 6697660 B1 (ROBINSON; STEPHEN E.) 24 February 2004 See abstract, column 18, line 45 - column 21, line 62, claims 1-5, and figure 1.	1-34
A	US 05263488 A (VAN VEEN BARRY D. et al.) 23 November 1993 See abstract, column 3, lines 47-65, column 4, lines 8-23, column 10, lines 31-61, column 12, lines 53-64, claims 1,12-13, and figures 1-2,4.	1-34
A	US 2006-0251303 A1 (BIN HE et al.) 09 November 2006 See abstract, paragraphs [0028]-[0038], and claims 6,12-14.	1-34

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means

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"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

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"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2005-0007091 A1	13.01.2005	US 7254500 B2	07.08.2007
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		WO 2005-025416 A3	24.03.2005