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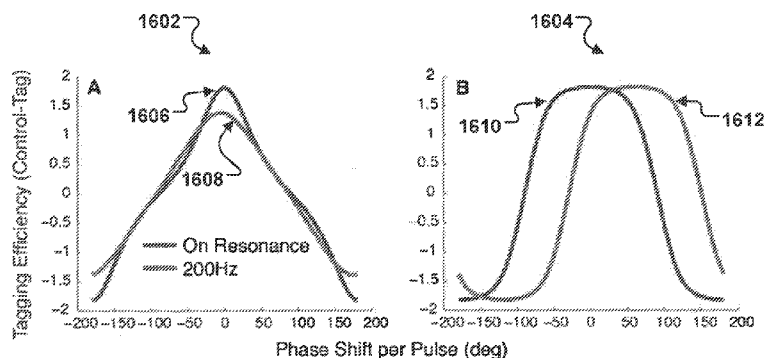


FIG. 16

(57) Abstract: Techniques, systems computer program products are disclosed for mapping of vascular perfusion territories by applying a train of pseudo-continuous radio frequency tagging pulses to modulate a first magnetization of one or more blood vessels that supply blood to one or more vascular perfusion territories, applying an encoding scheme using unipolar transverse gradient pulses to modulate a second magnetization of blood vessels of the vascular perfusion territories, obtaining efficiency for each blood vessel based on the applied encoding scheme and separating the vascular perfusion territories by using the obtained tagging efficiency in a decoding process.

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A. CLASSIFICATION OF SUBJECT MATTER*A61B 5/055(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 5/055; A61B 5/05; 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: MRI, perfusion, pseudo, tag

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| A | US 2008-0269595 A1 (WONG ERIC C.) 30 October 2008 See abstract, paragraphs [0030]-[0039], claims 1-14, and figures 1-12. | 1-34 |
| A | US 2010-0240983 A1 (JUNG YOUNGKYOO et al.) 23 September 2010 See abstract, claims 1-11, and figures 1a-1b. | 1-34 |
| A | US 2005-0277828 A1 (DAVID ALSOP) 15 December 2005 See abstract, paragraphs [0036]-[0039], claim 1, and figures 1-7. | 1-34 |
| A | US 7587233 B2 (WONG ERIC C. et al.) 08 September 2009 See abstract, column 3, line 34 - column 4, line 55, claim 1, and figures 1-2 | 1-34 |

 Further documents are listed in the continuation of Box C. See patent family annex.

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Information on patent family members

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
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| US 2005-0277828 A1 | 15.12.2005 | EP 1071367 A1 US 2008-0208033 A1 US 6980845 B1 US 7369888 B2 US 7865228 B2 WO 99-52429 A1 | 31.01.2001 28.08.2008 27.12.2005 06.05.2008 04.01.2011 21.10.1999 |
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