Title (en)

3D ULTRASOUND-BASED INSTRUMENT FOR NON-INVASIVE MEASUREMENT OF AMNIOTIC FLUID VOLUME

Title (de)

ULTRASCHALL-BASIERTES 3D-INSTRUMENT ZUR NICHT-INVASIVEN MESSUNG DES FRUCHTWASSERVOLUMENS

Title (fr)

INSTRUMENT A ULTRASONS 3D POUR LA MESURE NON INVASIVE DU VOLUME DE LIQUIDE AMNIOTIQUE

Publication

EP 1596718 A4 20060510 (EN)

Application

EP 03810833 A 20031105

Priority

- US 0335252 W 20031105
- US 42388102 P 20021105
- US 0324368 W 20030801
- US 47052503 P 20030512
- US 44312603 A 20030520
- US 63318603 A 20030731
- US 0314785 W 20030509

Abstract (en)

[origin: WO2004041094A2] A hand-held 3D ultrasound instrument is disclosed which is used to non-invasively and automatically measure amniotic fluid volume in the uterus requiring a minimum of operator intervention. Using a 2D image-processing algorithm, the instrument gives automatic feedback to the user about where to acquire the 3D image set. The user acquires one or more 3D data sets covering all of the amniotic fluid in the uterus and this data is then processed using an optimized 3D algorithm to output the total amniotic fluid volume corrected for any fetal head brain volume contributions.

IPC 8 full level

A61B 8/00 (2006.01); **A61B 8/08** (2006.01); **A61B 8/14** (2006.01); **G01S 7/52** (2006.01); **G01S 15/89** (2006.01); **G06T 5/00** (2006.01); **G06T 7/60** (2006.01)

CPC (source: EP)

A61B 8/00 (2013.01); **A61B 8/0866** (2013.01); **A61B 8/5223** (2013.01); **G06T 7/0012** (2013.01); **G06T 7/11** (2016.12); **G06T 7/12** (2016.12); **G06T 7/62** (2016.12); **G16H 50/30** (2017.12); A61B 8/4254 (2013.01); A61B 8/4455 (2013.01); A61B 8/4472 (2013.01); A61B 8/4477 (2013.01); A61B 8/4483 (2013.01); A61B 8/483 (2013.01); A61B 8/565 (2013.01); G01S 15/8993 (2013.01); G06T 2207/10136 (2013.01); G06T 2207/20061 (2013.01); G06T 2207/30004 (2013.01); G06T 2207/30044 (2013.01)

Citation (search report)

- [Y] EP 0961135 A1 19991201 - TOMTEC IMAGING SYST GMBH [DE]
- [Y] US 2002133075 A1 20020919 - ABDELHAK YAAKOV [US]
- [Y] US 4926871 A 19900522 - GANGULY DIPANKAR [US], et al
- [Y] EP 0846442 A2 19980610 - ADVANCED TECH LAB [US]
- [A] US 6234968 B1 20010522 - SUMANAWEERA THILAKA S [US], et al
- [A] US 5159931 A 19921103 - PINI RICCARDO [IT]
- [A] US 5964710 A 19991012 - GANGULY DIPANKAR [US], et al
- [A] US 5465721 A 19951114 - KISHIMOTO SHINJI [JP], et al
- See references of WO 2004041094A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004041094 A2 20040521; **WO 2004041094 A3 20040708**; **WO 2004041094 A8 20041007**; AU 2003296928 A1 20040607; AU 2003296928 A8 20040607; CA 2541798 A1 20040521; EP 1596718 A2 20051123; EP 1596718 A4 20060510

DOCDB simple family (application)

US 0335252 W 20031105; AU 2003296928 A 20031105; CA 2541798 A 20031105; EP 03810833 A 20031105