Title (en)

MEASUREMENT OF BLOOD OXYGEN SATURATION

Title (de)

MESSUNG DER SAUERSTOFFSÄTTIGUNG DES BLUTES

Title (fr)

MESURE DE LA SATURATION EN OXYGENE DU SANG

Publication

EP 1670355 A1 20060621 (EN)

Application

EP 04784948 A 20040924

Priority

- US 2004031321 W 20040924
- GB 0322545 A 20030926

Abstract (en)

[origin: WO2005030049A1] Oxygenation of a subject's blood is determined by sensing an absorption spectrum of light directed either invasively or non-invasively into the blood, and then calculating an oxygenation value by evaluating a cost function of the remitted spectrum relative to at least two pre-determined reference absorption spectra representing different, known levels of blood oxygenation. The source of light (301) preferably uses stable, long-life, white LEDs, in which case white-balancing of the remitted spectrum can be accomplished by pre-determining and storing the spectrum of the LEDs, one time for all, and then adjusting the remitted spectrum accordingly to compensate for deviations of the LED spectrum from the constant ideal.

IPC 1-7

A61B 5/00

IPC 8 full level

A61B 5/00 (2006.01)

CPC (source: EP)

A61B 5/14551 (2013.01)

Citation (search report)

See references of WO 2005030049A1

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 PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005030049 A1 20050407; AU 2004275800 A1 20050407; CA 2538571 A1 20050407; EP 1670355 A1 20060621; GB 0322545 D0 20031029; JP 2007506522 A 20070322

DOCDB simple family (application)

US 2004031321 W 20040924; AU 2004275800 A 20040924; CA 2538571 A 20040924; EP 04784948 A 20040924; GB 0322545 A 20030926; JP 2006528188 A 20040924