

Title (en)

PHYSIOLOGICAL CHARACTERISTIC DETECTION BASED ON REFLECTED COMPONENTS OF LIGHT

Title (de)

ERKENNUNG VON PHYSIOLOGISCHEN MERKMALEN AUF DER BASIS VON REFLEKTIERTEN LICHTKOMPONENTEN

Title (fr)

DÉTECTION DE CARACTÉRISTIQUES PHYSIOLOGIQUES BASÉE SUR DES COMPOSANTES DE LUMIÈRE RÉFLÉCHIES

Publication

EP 2844136 A1 20150311 (EN)

Application

EP 13785278 A 20130502

Priority

- US 201261641672 P 20120502
- US 2013039353 W 20130502

Abstract (en)

[origin: WO2013166341A1] Embodiments relate generally to the health field, and more specifically to a new and useful method for measuring detecting physiological characteristics, such as heart rate, of an organism. In one embodiment, a method includes detecting one or more surfaces associated with an organism, and receiving components of light reflected from the one or more surfaces of the organism. The components can be represented as data from a light capture device. Also, the method can include identifying subsets of light components, each subset of light components associated with one or more frequencies, identifying at a processor a time-domain component associated with a change in blood volume associated with the one or more surfaces of the organism, and extracting a physiological characteristic based on the time-domain component.

IPC 8 full level

A61B 5/024 (2006.01)

CPC (source: EP US)

A61B 5/004 (2013.01 - EP); **A61B 5/0077** (2013.01 - US); **A61B 5/0205** (2013.01 - EP); **A61B 5/02405** (2013.01 - EP US); **A61B 5/02416** (2013.01 - EP); **A61B 5/14546** (2013.01 - US); **A61B 5/165** (2013.01 - US); **A61B 5/318** (2021.01 - US); **A61B 5/7246** (2013.01 - US); **A61B 5/7257** (2013.01 - US); **A61B 5/7267** (2013.01 - US); **A61B 5/7465** (2013.01 - EP); **G06N 3/08** (2013.01 - US); **G06T 7/90** (2016.12 - EP); **G06V 40/161** (2022.01 - EP); **G16H 50/20** (2017.12 - US); **G16H 80/00** (2017.12 - EP); **A61B 5/0022** (2013.01 - EP); **A61B 5/165** (2013.01 - EP); **A61B 5/4806** (2013.01 - EP); **A61B 5/6803** (2013.01 - EP); **A61B 5/6898** (2013.01 - EP); **G06T 2207/10016** (2013.01 - EP); **G06T 2207/30076** (2013.01 - EP); **G06T 2207/30201** (2013.01 - EP)

Citation (search report)

See references of WO 2013166341A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2013166341 A1 20131107; AU 2013256179 A1 20141127; CA 2872478 A1 20131107; EP 2844136 A1 20150311

DOCDB simple family (application)

US 2013039353 W 20130502; AU 2013256179 A 20130502; CA 2872478 A 20130502; EP 13785278 A 20130502