Title (en)

INFRARED ATR GLUCOSE MEASUREMENT SYSTEM

Title (de)

SYSTEM ZUR MESSUNG VON GLUKOSE DURCH INFRAROT-ATR

Title (fr)

SYSTEME DE MESURE DU GLUCOSE FAISANT INTERVENIR LA SPECTROSCOPIE INFRAROUGE PAR REFLEXION TOTALE ATTENUEE (ATR)

Publication

EP 1137364 A2 20011004 (EN)

Application

EP 99951963 A 19991012

Priority

- US 9923823 W 19991012
- US 10388398 P 19981013

Abstract (en)

[origin: WO0021437A2] This involves a non-invasive glucose measurement device and a process for determining blood glucose level in the human body using the device. In typical operation, the glucose measurement device is self-normalizing in that it does not employ an independent reference sample in its operation. The device uses attenuated total reflection (ATR) infrared spectroscopy. Preferably, the device is used on a fingertip and compares two specific regions of a measured infrared spectrum to determine the blood glucose level of the user. Clearly, this device is especially suitable for monitoring glucose levels in the human body, and is especially beneficial to users having diabetes mellitus. The device and procedure may be used for other analyte materials which exhibit unique mid-IR signatures of the type described herein and that are found in appropriate regions of the outer skin.

IPC 1-7

A61B 5/00

IPC 8 full level

G01N 21/27 (2006.01); **A61B 5/00** (2006.01); **A61B 5/145** (2006.01); **A61B 5/1455** (2006.01)

CPC (source: EP)

A61B 5/14532 (2013.01); **A61B 5/1455** (2013.01)

Citation (search report)

See references of WO 0021437A2

Cited by

US11559223B2; WO2020152380A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0021437 A2 20000420; **WO 0021437 A3 20010719**; AU 6428699 A 20000501; AU 761110 B2 20030529; CA 2347482 A1 20000420; CA 2347482 C 20050208; CN 1555242 A 20041215; EP 1137364 A2 20011004; IL 142545 A0 20020310; JP 2002527136 A 20020827; NO 20011815 D0 20010410; NO 20011815 L 20010607

DOCDB simple family (application)

US 9923823 W 19991012; AU 6428699 A 19991012; CA 2347482 A 19991012; CN 99813406 A 19991012; EP 99951963 A 19991012; IL 14254599 A 19991012; JP 2000575421 A 19991012; NO 20011815 A 20010410