

Title (en)

METHOD AND DEVICE FOR THE NON-INVASIVE ANALYSIS OF METABOLIC PROCESSES

Title (de)

VERFAHREN UND VORRICHTUNG ZUR NICHTINVASIVEN UNTERSUCHUNG VON STOFFWECHSELPROZESSEN

Title (fr)

PROCEDE ET DISPOSITIF D'EXAMEN NON INVASIF DE PROCESSUS METABOLIQUES

Publication

**EP 1551283 A1 20050713 (DE)**

Application

**EP 03775045 A 20031002**

Priority

- DE 0303278 W 20031002
- DE 10246967 A 20021009

Abstract (en)

[origin: WO2004032734A1] The invention relates to a method and an arrangement for the non-invasive analysis of control and regulation processes in human and animal metabolism, in order to be able to draw conclusions about specific illnesses from the changes of individual metabolism parameters. Said method can be used in preventive analyses for the early detection of cancer, inflammatory diseases, and the determination of the anti-oxidant requirement, for the treatment control of individual illness images and the routine examination of occupational groups with specific physical and psychological stress. According to the invention, biologically active substances relating to metabolism and having autofluorescence properties are selected from the native fluorescence spectrum in the wavelength range of between 287 nm and 640 nm, and are interlinked in biochemical and biophysical models, in order to describe control and regulation processes in the human body. The fluorescence spectra are detected by means of an optical measuring path consisting of a light source (5), a fibre optic cable (1) for supplying the stimulation light to the measuring site, a fibre optic cable (2) for branching off the fluorescence light to the spectrometer (6), and an evaluation computer (7).

IPC 1-7

**A61B 5/00**

IPC 8 full level

**A61B 5/00** (2006.01)

CPC (source: EP)

**A61B 5/0059** (2013.01)

Citation (search report)

See references of WO 2004032734A1

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 2004032734 A1 20040422**; CA 2501613 A1 20040422; DE 10246967 A1 20040422; EP 1551283 A1 20050713; JP 2006501906 A 20060119

DOCDB simple family (application)

**DE 0303278 W 20031002**; CA 2501613 A 20031002; DE 10246967 A 20021009; EP 03775045 A 20031002; JP 2004542184 A 20031002