

Title (en)

APPARATUS FOR MEASURING AN OXYGEN CONCENTRATION GRADIENT AND METHOD OF USE THEREOF

Title (de)

VORRICHTUNG ZUR MESSUNG EINES SAUERSTOFF-KONZENTRATIONSGRADIENTEN UND VERFAHREN ZUR VERWENDUNG DERSELBEN

Title (fr)

APPAREIL DE MESURE D'UN GRADIENT DE CONCENTRATION EN OXYGENE ET SON PROCEDE D'UTILISATION

Publication

EP 1220639 A2 20020710 (EN)

Application

EP 00982645 A 20001013

Priority

- US 0041171 W 20001013
- US 15961699 P 19991014

Abstract (en)

[origin: WO0127585A2] The invention provides an improved, reliable and efficient way of measuring the oxygen concentration gradient in a sample by a novel apparatus and accompanying method of calculating linear oxygen concentrations within the sample, permitting diagnostic testing, for example, of the effects of a developmental or metabolic change in a cell or tissue, <i>in vitro</i> or <i>in vivo</i>, in response to disease, injury, radiation, or mechanical or chemical intervention, or simply to changed circumstances, or to measure the oxygen permeability of a membrane or plastic. The apparatus in a preferred embodiment comprises a core digital signal processor (DSP), having sufficient memory (RAM and ROM) to perform the necessary calculations, to control output of excitation light from a light source, and to collect phosphorescent lifetime data; and signal processors (A/D and D/A).

IPC 1-7

A61B 5/00

IPC 8 full level

A61B 5/1455 (2006.01); **A61B 5/00** (2006.01); **G01N 21/64** (2006.01)

CPC (source: EP)

A61B 5/14556 (2013.01); **G01N 21/6408** (2013.01); **G01N 2021/6432** (2013.01)

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 0127585 A2 20010419; **WO 0127585 A3 20020103**; AU 1964901 A 20010423; AU 766128 B2 20031009; CA 2387492 A1 20010419; CA 2387492 C 20120710; EP 1220639 A2 20020710; EP 1220639 A4 20060607

DOCDB simple family (application)

US 0041171 W 20001013; AU 1964901 A 20001013; CA 2387492 A 20001013; EP 00982645 A 20001013