

Title (en)
REAL-TIME ELECTRONIC CELL SENSING SYSTEM AND APPLICATIONS FOR CYTOTOXICITY PROFILING AND COMPOUND ASSAYS

Title (de)
ELEKTRONISCHES ECHTZEIT-ZELLENERFASSUNGSSYSTEM UND ANWENDUNGEN FÜR DIE CYTOTOXIZITÄTSPROFILIERUNG UND ZUSAMMENGESETZTE ASSAYS

Title (fr)
SYSTEMES DE DETECTION DE CELLULES ELECTRONIQUES EN TEMPS REEL ET APPLICATIONS EN MATIERE DE PROFILAGE DE CYTOTOXICITE ET DOSAGES DE COMPOSES

Publication
EP 1749203 A2 20070207 (EN)

Application
EP 05722991 A 20050209

Priority

- US 2005004481 W 20050209
- US 54292704 P 20040209
- US 54871304 P 20040227
- US 61460104 P 20040929
- US 98773204 A 20041112

Abstract (en)
[origin: WO2005077104A2] The present invention includes devices, systems, and methods for assaying cells using cell-substrate impedance monitoring. In one aspect, the invention provides cell-substrate impedance monitoring devices that comprise electrode arrays on a nonconducting substrate, in which each of the arrays has an approximately uniform electrode resistance across the entire array. In another aspect, the invention provides cell-substrate monitoring systems comprising one or more cell-substrate monitoring devices comprising multiple wells each having an electrode array, an impedance analyzer, a device station that connects arrays of individual wells to the impedance analyzer, and software for controlling the device station and impedance analyzer. In another aspect, the invention provides cellular assays that use impedance monitoring to detect changes in cell behavior or state. The methods can be used to test the effects of compounds on cells, such as in cytotoxicity assays. Methods of cytotoxicity profiling of compounds are also provided.

IPC 8 full level
G01N 27/02 (2006.01); **C12M 1/34** (2006.01); **G01N 33/487** (2006.01); **G01N 33/543** (2006.01)

CPC (source: EP)
C12M 25/08 (2013.01); **C12M 41/36** (2013.01); **G01N 33/4836** (2013.01); **G01N 33/5005** (2013.01); **G01N 27/021** (2013.01)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR LV MK YU

DOCDB simple family (publication)
WO 2005077104 A2 20050825; **WO 2005077104 A3 20080814**; CA 2556219 A1 20050825; CN 101400780 A 20090401; CN 101400780 B 20120620; EP 1749203 A2 20070207; EP 1749203 A4 20090506

DOCDB simple family (application)
US 2005004481 W 20050209; CA 2556219 A 20050209; CN 200580012255 A 20050209; EP 05722991 A 20050209