

Title (en)
DEVICE AND METHOD FOR NON-INVASIVE DETECTION OF GROWTH PROCESSES AND SIMULTANEOUS MEASUREMENT OF CHEMICAL-PHYSICAL PARAMETERS

Title (de)
VORRICHTUNG UND VERFAHREN ZUR NICHT-INVASIVEN ERFASSUNG VON WACHSTUMSPROZESSEN UND SIMULTANEN MESSUNG VON CHEMISCH-PHYSIKALISCHEN PARAMETERN

Title (fr)
DISPOSITIF ET PROCÉDÉ DESTINÉS AU SUIVI NON-INVASIF DE PROCESSUS DE CROISSANCE ET À LA MESURE SIMULTANÉE DE PARAMÈTRES PHYSICO-CHIMIQUES

Publication
EP 2780695 A1 20140924 (DE)

Application
EP 12798135 A 20121024

Priority
• DE 102011118619 A 20111116
• DE 2012001023 W 20121024

Abstract (en)
[origin: WO2013071902A1] The invention relates to a device for the non-invasive detection of growth processes and simultaneous measurement of chemical and/or physical parameters, comprising the following components: a) a lighting unit (f, m), b) an optical detection unit (i, h, n, g), c) at least one growth container (b, l) containing a growth medium (d), d) at least one transparent, planar optode (c), e) a control unit (j), and f) an electronic data acquisition and evaluating unit (k). The invention relates further to a method for the non-invasive detection of growth processes and simultaneous measurement of chemical and/or physical parameters, comprising the following method steps: a) detecting the growth processes by means of imaging methods; and b) detecting the chemical and/or physical parameters by using a planar, transparent optode (c), wherein the data from a) und b) is obtained simultaneously and in parallel.

IPC 8 full level
A01G 7/00 (2006.01); **G01J 3/44** (2006.01); **G01N 21/64** (2006.01); **G01N 21/77** (2006.01); **G01N 21/84** (2006.01); **G01N 33/00** (2006.01)

CPC (source: EP US)
A01G 7/00 (2013.01 - EP); **G01N 21/6408** (2013.01 - EP US); **G01N 21/6428** (2013.01 - EP); **G01N 21/6456** (2013.01 - EP); **G01N 21/77** (2013.01 - EP); **G01N 21/84** (2013.01 - EP); **G01N 33/0098** (2013.01 - EP); **G01N 21/783** (2013.01 - EP); **G01N 21/80** (2013.01 - EP); **G01N 2021/6417** (2013.01 - EP); **G01N 2021/6439** (2013.01 - EP); **G01N 2021/6471** (2013.01 - EP); **G01N 2021/6497** (2013.01 - EP); **G01N 2021/773** (2013.01 - EP); **G01N 2021/7786** (2013.01 - EP); **G01N 2021/8466** (2013.01 - EP); **G01N 2201/0627** (2013.01 - EP); **G01N 2201/0642** (2013.01 - EP)

Citation (search report)
See references of WO 2013071902A1

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

DOCDB simple family (publication)
DE 102011118619 A1 20130516; DE 102011118619 A8 20131002; EP 2780695 A1 20140924; WO 2013071902 A1 20130523

DOCDB simple family (application)
DE 102011118619 A 20111116; DE 2012001023 W 20121024; EP 12798135 A 20121024