

Title (en)
SYSTEM FOR CONTROLLED AND SELECTIVE SAMPLING OF EXHALED AIR AND CORRESPONDING OPERATING PROCEDURE

Title (de)
SYSTEM ZUR KONTROLLIERTEN UND SELEKTIVEN PROBENAHME VON AUSATEMLUFT UND ENTSPRECHENDES BETRIEBSVERFAHREN

Title (fr)
SYSTÈME D'ÉCHANTILLONNAGE COMMANDÉ ET SÉLECTIF D'AIR EXHALÉ ET PROCÉDURE DE FONCTIONNEMENT CORRESPONDANTE

Publication
EP 3509488 A1 20190717 (EN)

Application
EP 17787616 A 20170905

Priority
• PT 10961716 A 20160912
• IB 2017055322 W 20170905

Abstract (en)
[origin: WO2018047058A1] The present application is related with a system (1) and respective method of operation, for controlled and selective sampling of exhaled air from a predetermined part of the respiratory tree. The system (1) is comprised by two attachable modules: a portable sampling device (3) and a hardware module (12), controlled by a machine learning software (16) loaded on a processing device. The technology developed detects and imposes a breathing rhythm to the subject according to its characteristics (age, genre and physiological condition) and to synchronize the subject's breathing cycle with a representative modelled breathing cycle using the machine learning process (16). Then, it is predicted the instants for opening/closing the valve (9) to conduct the selected breath portion into the analyser (17) or collector (18). The system (1) disclosed allows monitoring, diagnosing and assessing medical conditions of the patient, as well as assessing the inflammation degree of the respiratory airways of the subject.

IPC 8 full level
A61B 5/097 (2006.01); **A61B 5/00** (2006.01)

CPC (source: EP PT)
A61B 5/08 (2013.01 - PT); **A61B 5/097** (2013.01 - EP); **A61B 5/7267** (2013.01 - EP); **A61B 5/7475** (2013.01 - EP); **G16H 20/40** (2017.12 - EP); **G16H 40/63** (2017.12 - EP); **G16H 50/20** (2017.12 - EP); **G16H 50/30** (2017.12 - EP)

Citation (search report)
See references of WO 2018047058A1

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2018047058 A1 20180315; EP 3509488 A1 20190717; PT 109617 A 20180312

DOCDB simple family (application)
IB 2017055322 W 20170905; EP 17787616 A 20170905; PT 10961716 A 20160912