**Title:** DETERMINING FUNCTIONAL RESIDUAL LUNG CAPACITY

**Abstract:** Determining functional residual lung capacity (FRC) by changing a subject's inspirium Fiθ₂ by a predetermined amount, and a) for each breath in a series of breaths subsequent to changing the Fiθ₂, determining expiratory fractional N₂ tidal volume, multiplying the expiratory tidal volume by an absolute difference between the expiratory fractional N₂ tidal volume of the breath and that of an immediately preceding breath for a first multiplication result, dividing the first multiplication result by the sum of the differences for a first division result, and multiplying the fractional N₂ tidal volume by the sum of the first division results of the breaths for a second multiplication result, and b) dividing the sum of the second multiplication results of the breaths by the absolute difference between the fractional N₂ tidal volume of the first and last breaths to produce a measurement of the subject's FRC.
INTERNATIONAL SEARCH REPORT

INTERNATIONAL APPLICATION No
PCT/IB 09/51677

A CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61 B 5/08 (2009.01 )

USPC - 600/538

According to International Patent Classification (IPC) or to both national classification and IPC

B FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
USPC - 600/538

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC 600/300, 529, 530, 531, 532, 533, 534, 539, 73/149
IPC(8) - A61 B 5/08 (2009.01 )

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PubWEST (USPT, PGBP, USOC, EPAB, JPAB), Google functional, lung, residual, capacity, FiO2, fraction, inspired, oxygen, O2, nitrogen, N2, CO2, calculate, algorithm, formula, multiply, divide, inca, kesselman, shahar

C DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No</th>
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☐ Further documents are listed in the continuation of Box C

* "A" document defining the general state of the art which is not considered to be of particular relevance
* "E" earlier application or patent but published on or after the international filing date
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Date of the actual completion of the international search
25 September 2009 (25 09 2009)

Date of mailing of the international search report
08 Oct 2009

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