European Patent Office

SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application Number
EP 02 76 8834

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 0 692 273 A (TRUDELL MEDICAL LTD [CA]) 17 January 1996 (1996-01-17) * column 7, lines 4-14 * * column 7, line 44 - column 8, line 32 * * column 44, line 3 - column 45, line 31; figures 1,57-59 * -----	1-8,14	INV. A61B5/00
D,X	US 4 850 371 A (BROADHURST JOHN H [US] ET AL) 25 July 1989 (1989-07-25) * column 1, lines 54-65; figures 3,18 * * column 3, line 4 - column 5, line 6 * * column 15, line 56 - column 18, line 61 * -----	1-4,6-8	
X	US 5 692 497 A (SCHNITZER JAY J [US] ET AL) 2 December 1997 (1997-12-02) * column 3, lines 46-59 * * column 5, line 33 - column 6, line 10 * -----	1-4,6-8	
X	WO 01/02042 A (PULMONX [US]) 11 January 2001 (2001-01-11) * page 4, lines 1-20 * * page 7, lines 20-31 * * page 11, lines 27-30; figures 1,4A * -----	1-4,6-8	TECHNICAL FIELDS SEARCHED (IPC) A61B A61M

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search	Date of completion of the search	Examiner
Munich	9 May 2008	Küster, Gunilla

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C04)

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Application Number
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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☒ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-8,14

Pulmonary diagnostic system comprising at least one sensor, a pulmonary catheter, and means for transferring fluid or gas to or from the lung; with details on the sensor or on the processing of the measurement data generated by the sensor

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2. claims: 9-12

Pulmonary diagnostic system, comprising a gas dilution unit for generating flow of a noble gas, and sensing and processing the gas concentration

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3. claim: 13

Pulmonary diagnostic system, comprising an imaging unit comprising means for generating flow of an imaging fluid or gas

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4. claims: 15-17

Pulmonary diagnostic system, comprising a signal emitting sensor disposed on the catheter, and an exterior receiver for generating resistivity measurement data

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5. claims: 18-20

Pulmonary diagnostic system, comprising a signal emitting sensor disposed on the catheter, and a mapping unit using this signal

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The application lacks unity within the meaning of Article 82 EPC for the following reasons:

The features of claim 1 are known from document EP-A-0 692 273 (=D1), which discloses a system comprising:
at least one sensor (964, 976, 1004) which generates measurement data reflecting a respiratory feature of a lung compartment (col. 44 l. 6-24);
a pulmonary catheter (944, 980) configured for accessing a lung compartment through a lung passageway;
a device connectable with the pulmonary catheter, the device comprising means for transferring fluid or gas to the lung compartment through the pulmonary catheter (col. 45 l. 15-18 and col. 7 l. 55 - col. 8 l. 6),
means for receiving the measurement data from the sensor (col. 45 l. 13-15), and

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

means for processing the measurement data (col. 45 l. 19-22); and
at least one data receiving component (flow control portion, cf. col. 45 l. 13-15) which receives the processed data.
The system known from D1 provides for the delivery of an aerosoled medication to the lungs, wherein the medication can be delivered for diagnostic or therapeutic purposes (col. 7 l. 4-14). The system therefore constitutes a "pulmonary diagnostic system" as defined in present claim 1.

The different inventions, with their respective special technical features (Rule 44(1) EPC) in view of D1 as given above, relate to solving the following problems:
invention I.: improved analysis of the measured data,
invention II.: providing means for Functional Residual Capacity (FRC) testing (cf. para. 21 of the present application),
invention III.: generating an image of the lung compartment,
invention IV.: providing resistivity data, and
invention V.: determining the position of the pulmonary catheter.
These problems thus do not allow for a relationship to be established between the said inventions, which involves a single general inventive concept. The above inventions show lack of corresponding technical effect as well.

Consequently, the requisite unity of invention does not exist as there is no technical relationship among the above inventions involving one or more of the same or corresponding special technical features (Rule 44(1) EPC).

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 02 76 8834

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

09-05-2008

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		AU 2169995 A	04-01-1996
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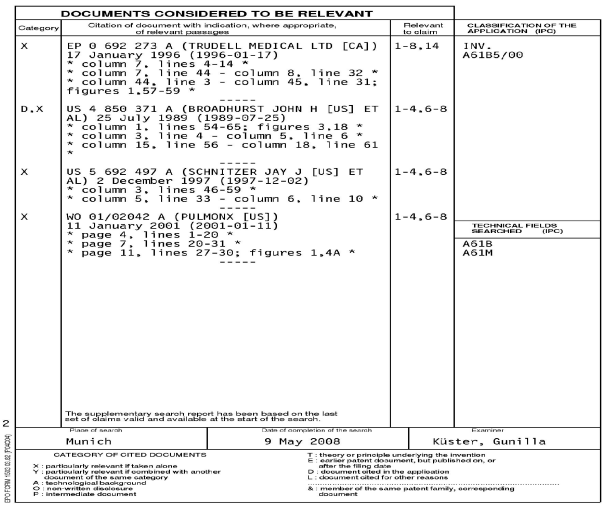
专利名称(译)	用于支气管内诊断的方法和设备		
公开(公告)号	EP1435833A4	公开(公告)日	2008-06-18
申请号	EP2002768834	申请日	2002-09-10
申请(专利权)人(译)	PULMONX		
当前申请(专利权)人(译)	PULMONX		
[标]发明人	KOTMEL ROBERT SOLTESZ PETER WONDKA ANTHONY PERKINS RODNEY		
发明人	KOTMEL, ROBERT SOLTESZ, PETER WONDKA, ANTHONY PERKINS, RODNEY		
IPC分类号	A61B5/08 A61B5/055 A61B5/083 A61B5/087 A61B8/08 A61M16/04 A61B5/00		
CPC分类号	A61B5/055 A61B5/0813 A61B5/083 A61B5/087 A61M16/04 A61M16/0404 A61M16/0434 A61M16/0459 A61M16/0486 A61M2016/0413 A61B5/08 A61B5/082 A61B5/085 A61B5/6853 A61B5/7278 A61B5/742 A61B6/481 A61B6/485 A61B8/12 A61B2562/0247 A61M25/0026 A61M25/10 A61M2025/1052		
代理机构(译)	WORK，伊利亚		
优先权	60/318539 2001-09-10 US		
其他公开文献	EP1435833A2 EP1435833B1		
外部链接	Espacenet		

摘要(译)

本发明提供了用于评估单个肺室中的肺部疾病水平的系统，方法，设备和套件。 肺隔室包括肺的子部分，例如肺叶，节段或子节段。 通过测量各个肺隔室，可以通过确定反映肺的各个子部分或隔室的疾病参数的值来更精确地定义肺系统疾病的水平。 同样，隔室可以单独成像以提供进一步的测量信息。 一旦确定了各个隔室的特征，就可以根据反映例如疾病水平或治疗需求的多个变量对它们进行比较和排名。 通过在视觉显示器上同时显示这样的变量或图像可以辅助这种比较。 此外，可以对整个肺或对两个肺进行相同的测试，以确定患病的肺室对整体肺功能的影响。 另外，患病的肺隔室可以暂时隔离，并进行测量测试以确定隔离对整体肺功能的影响。 结果，可以选择最有益的治疗选择。



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