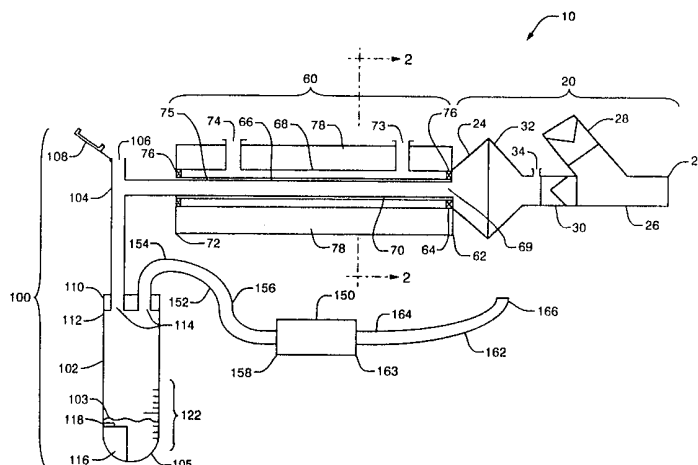




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(54) Title: DEVICE AND METHOD FOR MONITORING ASTHMA



(57) Abstract

A device (10) and method for non-invasively monitoring asthma and other respiratory diseases. The method includes collecting condensate from a subject's breath, testing the condensate to determine its acidity level or ammonium concentration, and evaluating these properties to determine the presence, absence or status of a respiratory disease in the subject. The method may also include, prior to the testing step, standardizing the volatile substances that may be present within the condensate in a degassing or gas standardizing step. The device (10) includes a mouthpiece apparatus (20) configured to receive breath from a subject, a condensation apparatus (60) to condense the subject's breath and produce a condensate, and a collection apparatus (100) having a collection chamber (102) containing means for testing the condensate to determine its chemical properties. The device (10) also include a system for removing or standardizing the volatile substances that may be present with the condensate.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/30184

A. CLASSIFICATION OF SUBJECT MATTER
 IPC(7) : A61B 5/08
 US CL : 600/532
 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)
 U.S. : 73/23.3; 422/84, 85; 600/529, 532, 543

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, E	US 6,033,368 A (GASTON, IV et al.) 07 March 2000, claims 1-4.	29, 32, 33, 36, 38, 39, 42-48, 53
A, E	US 6,010,459 A (SILKOFF et al.) 04 January 2000.	1-63
A, P	US 5,922,610 A (ALVING et al.) 13 July 1999.	1-63

Further documents are listed in the continuation of Box C. See patent family annex.

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Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer <i>Catherine McPherson</i> CATHERINE McPHERSON Telephone No. (703) 305-0910
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