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Rees et al.

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(54) **AUTOMATIC LUNG PARAMETER ESTIMATOR**

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(58) **Field of Classification Search** ..... 600/322,  
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See application file for complete search history.

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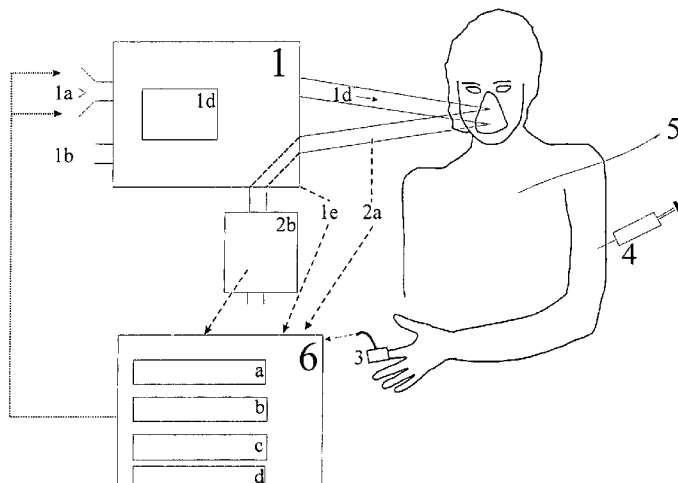
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(57) **ABSTRACT**

A device for determining one or more respiratory parameters relating to an individual is disclosed, as well as a method for determining one or more respiratory parameters by means of the device, wherein the individual is suffering from hypoxemia or is at risk of hypoxemia. However, the method and the device may also be applied to healthy individual e.g. for testing of medicaments. The device is controlled by a computer equipped with suitable software and includes functionality for on-line continuous data collection, automatic assessment of the timing of measurements, automatic assessment of the next target (oxygen saturation of arterial blood (SpO<sub>2</sub>)), automatic assessment of the appropriate fraction of oxygen in inspired gas (FIO<sub>2</sub>) settings to achieve the target SpO<sub>2</sub>, automatic control of the FIO<sub>2</sub>, on-line parameter estimation, and automatic assessment of the number of measurements required.

**58 Claims, 10 Drawing Sheets**



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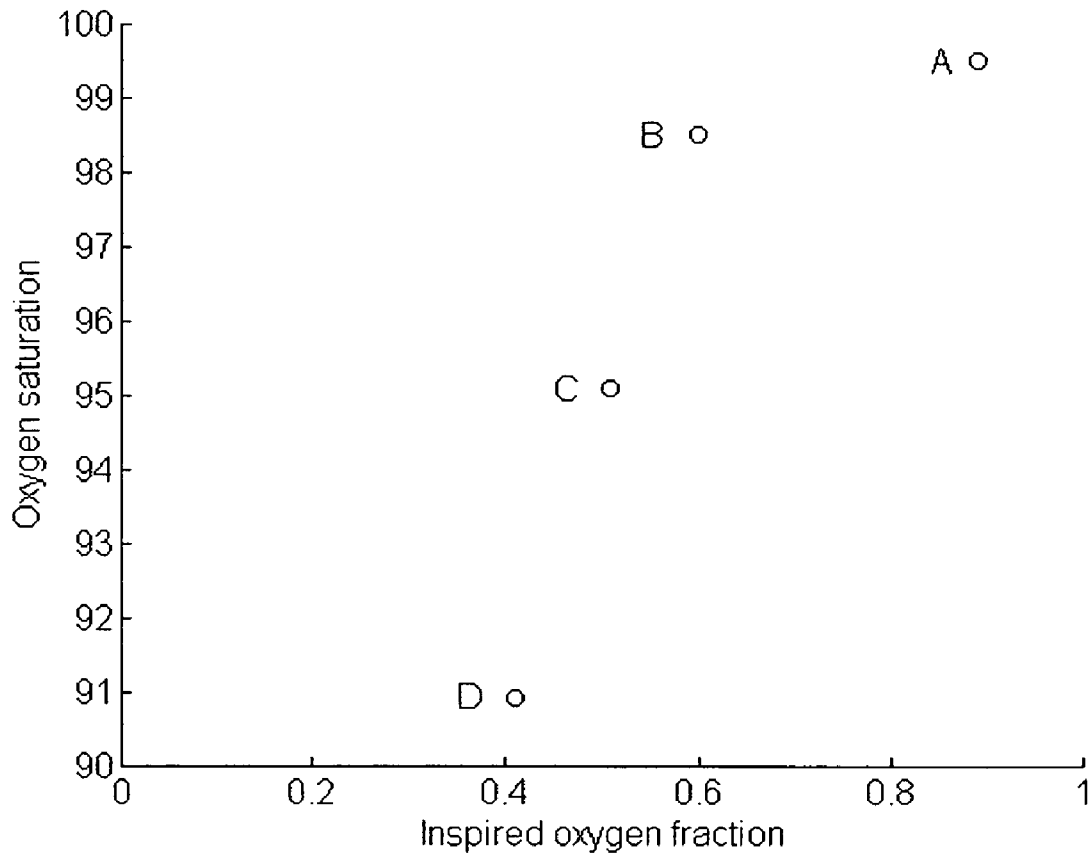


Fig. 1

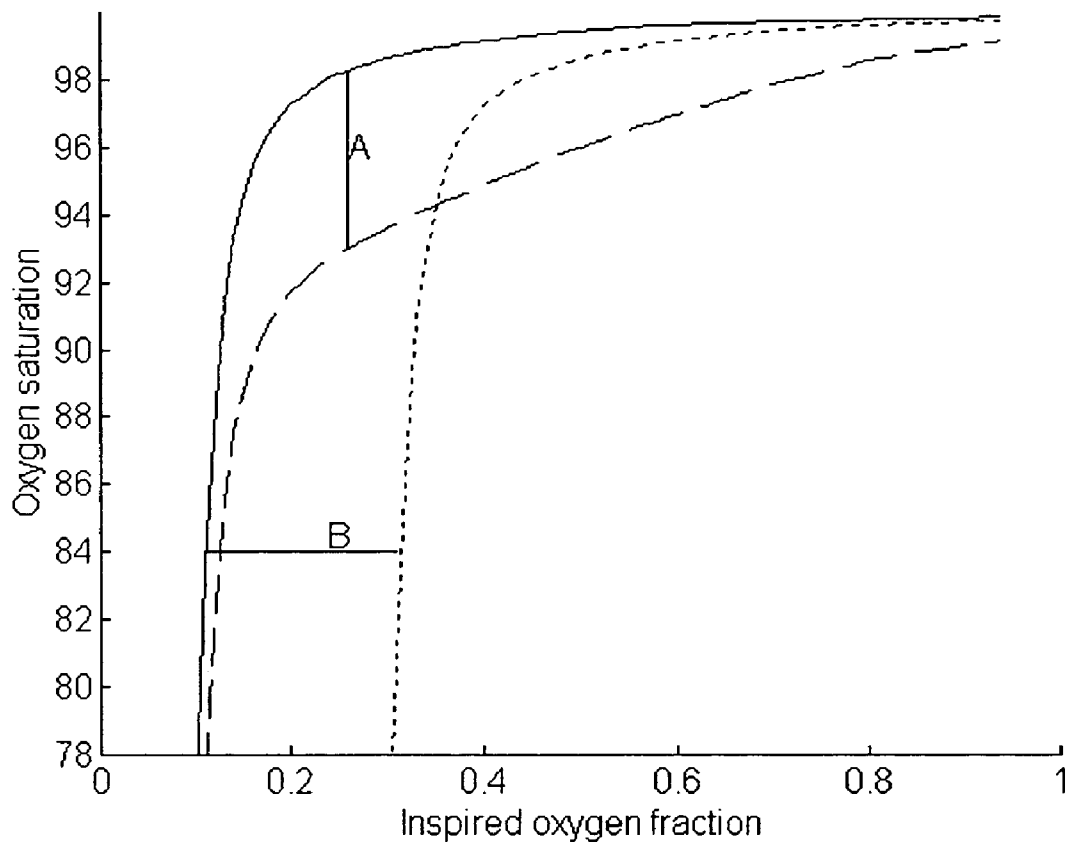


Fig. 2

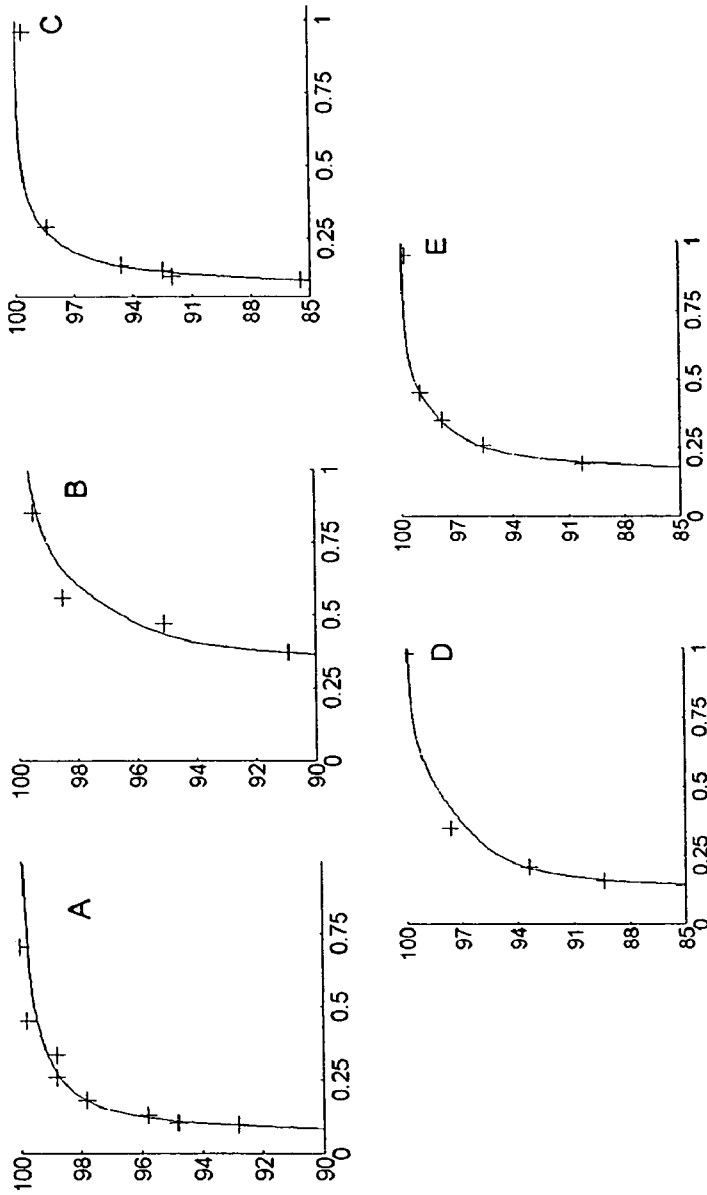


Fig. 3

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