

Device and Method for Collection of Exhaled Alveolar Breath Condensate

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Device and Method for Collection of Exhaled Alveolar Breath Condensate

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Abstract:

A diagnosis method for respiratory disease based on the separation of the expired airway phase in an exhaled breath from the alveolar phase, and a device to accomplish the method. The device includes a cartridge assembly and a disposable condensing chamber carried in a substantially enclosed housing. The cartridge assembly includes a disposable cartridge and a reusable control system that monitors a characteristic of gas passing through the cartridge to determine when to divert the exhaled breath to an exhaust outlet and when to divert the exhaled breath to the condensing chamber. The characteristic is selected as being representative of the transition from the expired airway phase to the alveolar phase. Also included are a refrigeration system, an auxiliary monitoring system for determining when a sufficient volume of gas has been produced, and a built-in analyzer.

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