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(54) **MARKER DETECTION METHOD AND APPARATUS TO MONITOR DRUG COMPLIANCE**

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(51) **Int. Cl.**

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(58) **Field of Classification Search** 422/84; 73/23.3; 436/13

See application file for complete search history.

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(57) **ABSTRACT**

The present invention includes a method and apparatus for monitoring drug compliance by detecting markers, such as odors, upon exhalation by a patient after medication is taken, wherein such markers result either directly from the medication itself or from an additive combined with the medication. In the case of olfactory markers, the invention preferably utilizes electronic sensor technology, such as the commercial devices referred to as "artificial noses" or "electronic noses," to non-invasively monitor compliance. The invention further includes a reporting system capable of tracking compliance (remote or proximate) and providing the necessary alerts.

32 Claims, 3 Drawing Sheets