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Wilsey

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(54) **REAGENT MATERIALS AND ASSOCIATED TEST ELEMENTS**

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USPC **435/14**; 435/26

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See application file for complete search history.

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(57) **ABSTRACT**

Reagent materials and associated test elements are provided. In one embodiment, a test element having dual functionality includes a first coenzyme-dependent enzyme or a substrate for the first enzyme, a second coenzyme-dependent enzyme or a substrate for the second enzyme, and a coenzyme selected from the group consisting of thio-NAD, thio-NADP, and a compound according to formula (I). In one aspect, the first analyte is hydroxybutyrate and the first enzyme is a hydroxybutyrate dehydrogenase, and the second analyte is glucose and the second enzyme is a glucose dehydrogenase or a glucose oxidase. Other aspects of the subject application are directed to unique reagent materials. Further embodiments, forms, objects, features, advantages, aspects, and benefits shall become apparent from the description and drawings.

21 Claims, 18 Drawing Sheets