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(12) **United States Patent**
Srinivasan et al.

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(54) **METHODS FOR IDENTIFYING HAEMOGLOBIN S OR C IN A BIOLOGICAL SAMPLE AND KITS THEREOF**

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See application file for complete search history.

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(57) **ABSTRACT**

The present disclosure provides in vitro methods for identifying the presence or absence of haemoglobin S (HbS) or haemoglobin C (HbC) in a blood sample, kits and devices thereof. The inventors have found that HbS shows a substantial decrease in absorption under deoxygenated conditions compared to oxygenated conditions. The inventors expect HbC to show a similar decrease in absorption under deoxygenated conditions compared to oxygenated conditions. The methods, kits and devices of the disclosure employ this decrease in absorption under deoxygenated conditions to identify the presence or absence of HbS or HbC in a blood sample. The methods, kits and devices of the present disclosure are simple, low cost, and provide a rapid way to identify the presence or absence of HbS or HbC in a blood sample in a point-of-care setting.

9 Claims, 3 Drawing Sheets