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(57) Abstract :

ABSTRACT IOT ENABLED HEMOGLOBIN TESTING DEVICE WITH CLOUD DIAGNOSTICS The present invention discloses an IoT-enabled hemoglobin testing device. The device comprises a sample acquisition module (110) configured to receive a biological sample from a subject for hemoglobin analysis. The hemoglobin sensing unit (120) operatively coupled to the sample acquisition module (110), the hemoglobin sensing unit (120) being configured to measure hemoglobin concentration using at least one optical, electrochemical, or biosensing technique. The signal processing unit (130) configured to process raw sensor signals and compute hemoglobin values. The communication module (140) configured to transmit the computed hemoglobin values to a cloud-based diagnostic platform through a wired or wireless communication network. The output interface (160) configured to present hemoglobin test results and diagnostic information to a user. The device enables real-time or near real-time hemoglobin testing and cloud-based diagnostic analysis for remote health monitoring.

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