TITLE OF INVENTION: FULL ENCLOSED ANALYTE DETECTION DEVICE

ABSTRACT

A fully enclosed analyte detection device is provided. The fully enclosed analyte detection device includes an upper cassette, a lower cassette, an aluminum film, breathable membrane, and a cap puncture needle. The upper cassette is engaged with the lower cassette. The upper cassette includes a body. The lower cassette includes a central hole, a flow channel, a paraffin wax tank, a valve and a reaction tank. The polygon central hole corresponds to a bottom of the body and is connected to the flow channel. The flow channel is sequentially provided with the paraffin wax tank, the valve, and the reaction tank in the direction away from the central hole. Paraffin is filled in the top inside of the paraffin wax tank. The breathable membrane is placed above the reaction tank. The aluminum film is provided between the bottom of the body of the upper cassette and the central hole of the lower cassette, and the cap puncture needle is closed on the upper cassette. The fully enclosed analyte detection device of the present invention can achieve the effect of preventing the nucleic acids to be detected from contaminating each other between reaction tanks and avoiding contamination of the surrounding environment that may cause detection abnormalities or failures by the paraffin wax tank and the enclosed structure.

(Fig. 2A)