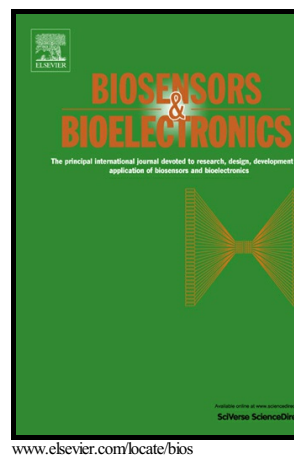


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Paper-based Sample-to-Answer Molecular Diagnostic Platform for Point-of-Care Diagnostics

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ABSTRACT: Nucleic acid testing (NAT), as a molecular diagnostic technique, including nucleic acid extraction, amplification and detection, plays a fundamental role in medical diagnosis for timely medical treatment. However, current NAT technologies require relatively high-end instrumentation, skilled personnel, and are time-consuming. These drawbacks mean conventional NAT becomes impractical in many resource-limited disease-endemic settings, leading to an urgent need to develop a fast and portable NAT diagnostic tool. Paper-based devices are typically robust, cost-effective and user-friendly, holding a great potential for NAT at the point of care. In view of the escalating demand for the low cost diagnostic devices, we highlight the beneficial use of paper as a platform for NAT, the current state of its development,

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