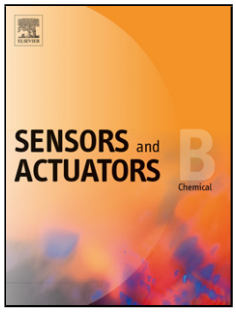


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# Renewable superwettable biochip for miRNA detection

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## Highlights

- The analytes could be enriched and anchored onto the microwells from diluted solutions due to the wettability difference between the superhydrophilic microwells and superhydrophobic $TiO_2$ substrate.
- The superwettable biochip achieved a great selectivity and commendable sensitivity toward miRNA-141 detection.
- The superwettable biochip exhibited excellent renewability, and consistent results can be obtained after several cycles.

**Abstract**

Biochips are a collection of miniaturized test sites (microarrays), which enable researchers to quickly screen large numbers of biological analytes, have become one of