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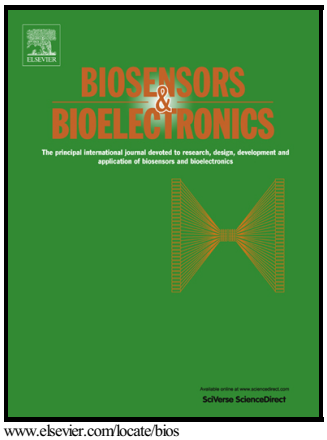

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PII: S0956-5663(14)00789-1
DOI: http://dx.doi.org/10.1016/j.bios.2014.10.005
Reference: BIOS7184

To appear in: *Biosensors and Bioelectronic*

Received date: 5 June 2014
Revised date: 19 September 2014
Accepted date: 1 October 2014

Cite this article as: Tijjani Adam and U. Hashim, Highly sensitive silicon nanowire biosensor with novel liquid gate control for detection of specific single-stranded DNA Molecules, *Biosensors and Bioelectronic,* http://dx.doi.org/10.1016/j.bios.2014.10.005

Highly Sensitive Silicon Nanowire Biosensor with Novel Liquid Gate Control for Detection of Specific Single-Stranded DNA Molecules

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Abstract

The study demonstrates the development of a liquid-based gate-control silicon nanowire biosensor for detection of specific single-stranded DNA(ssDNA) molecules. The sensor was fabricated using conventional photolithography coupled with an inductively coupled plasma dry etching process. Prior to the application of DNA to the