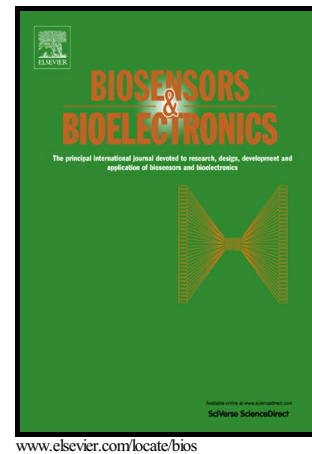


Author's Accepted Manuscript

Highly sensitive *Escherichia coli* shear horizontal surface acoustic wave biosensor with silicon dioxide nanostructures

S.T. Ten, U. Hashim, S.C.B. Gopinath, W.W. Liu, K.L. Foo, S.T. Sam, S.F.A. Rahman, C.H. Voon, A.N. Nordin



PII: S0956-5663(16)30925-3
DOI: <http://dx.doi.org/10.1016/j.bios.2016.09.035>
Reference: BIOS9147

To appear in: *Biosensors and Bioelectronic*

Received date: 18 June 2016
Revised date: 25 August 2016
Accepted date: 10 September 2016

Cite this article as: S.T. Ten, U. Hashim, S.C.B. Gopinath, W.W. Liu, K.L. Foo, S.T. Sam, S.F.A. Rahman, C.H. Voon and A.N. Nordin, Highly sensitive *Escherichia coli* shear horizontal surface acoustic wave biosensor with silicon dioxide nanostructures, *Biosensors and Bioelectronic* <http://dx.doi.org/10.1016/j.bios.2016.09.035>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain

Highly sensitive *Escherichia coli* shear horizontal surface acoustic wave biosensor with silicon dioxide nanostructures

S.T. Ten^{*1,2}, U. Hashim^{2,3}, S.C.B. Gopinath^{2,5}, W.W. Liu², K.L. Foo², S.T. Sam⁴, S.F.A.Rahman⁵, C.H. Voon², A.N. Nordin⁶

¹Malaysian Agricultural Research And Development Institute, Serdang 43400, Malaysia

²Institute of Nano Electronic Engineering, Universiti Malaysia Perlis, Kangar 01000, Malaysia,

³School of Microelectronic Engineering, Universiti Malaysia Perlis, Arau 02600, Malaysia,

⁴School of Bioprocess Engineering, Universiti Malaysia Perlis, Arau 02600, Malaysia,

⁵Institute of Advanced Technology, Universiti Putra Malaysia, Serdang 43400, Malaysia

⁶Department of Electrical and Computer Engineering, Engineering Faculty, International Islamic University Malaysia, Kuala Lumpur 53100, Malaysia,

ABSTRACT

Surface acoustic wave mediated transductions have been widely used in the sensors and actuators applications. In this study, a shear horizontal surface acoustic wave (SHSAW) was used for the detection of food pathogenic *Escherichia coli* O157:H7 (*E.coli* O157:H7), a

Download English Version:

<https://daneshyari.com/en/article/5031535>

Download Persian Version:

<https://daneshyari.com/article/5031535>

[Daneshyari.com](https://daneshyari.com)