

INVENTORS

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E.D KIT

Patent No.: 2011003126 / 2011003054



PRODUCT DESCRIPTION

The E.D Kit provides a **SIMPLE, RAPID** and **LABEL-FREE** detection of O157:H7 Escherichia coli DNA using **QUANTITATIVE** measurement. Nanotechnology-developed titanium dioxide nanoparticles were used in the fabrication of lab-on-chip biosensor.

PRODUCT ADVANTAGES

- Low fluid volume consumption
- High-throughput analysis and response time
- Simple detection
- High surface to volume ratio
- Ultra high sensitivity and selectivity
- Reusable
- Better process control
- Compact
- Cost-effective

COMMERCIAL POTENTIAL

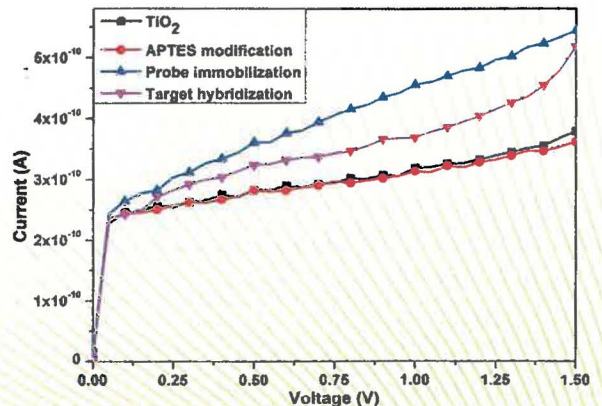
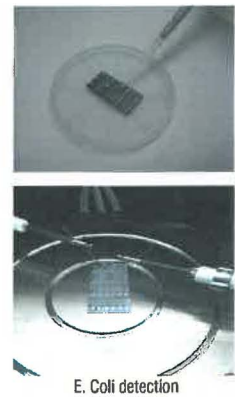
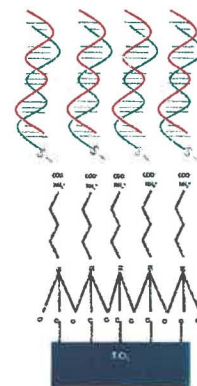
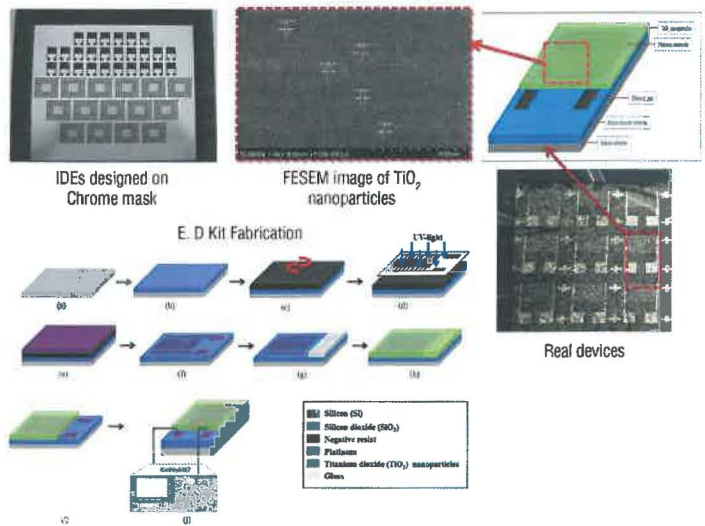
- Applicable for any food pathogens
- Early detection prevent cross-contamination for end-user
- Effective for food safety monitoring /food forensic
- Safety awareness to government and public
- Improve food hygiene practices
- Confirm the presence of E. Coli in affected sample
- Identify the type of virus affecting the sample
- Help prevent further outbreak by early detection.

MARKETING TARGET

- Private Medical Diagnostic and Testing Lab
- Kementerian Kesihatan Malaysia
- Indah Water Konsortium (IWK)
- Jabatan Kimia
- Food lab
- Forensics lab
- University Research Lab
- Individual's

NOVELTIES

- Ultra-high sensitive detection device.
- Ultra-high selective detection device.
- Label-free.
- Rapid detection.
- Fabricated using conventional photolithography technique.
- Low power consuming biochip device.



I-V curves of TiO₂ nanoparticles for E.coli detection