

Escherichia coli BIOSENSOR Lateral Flow Strips



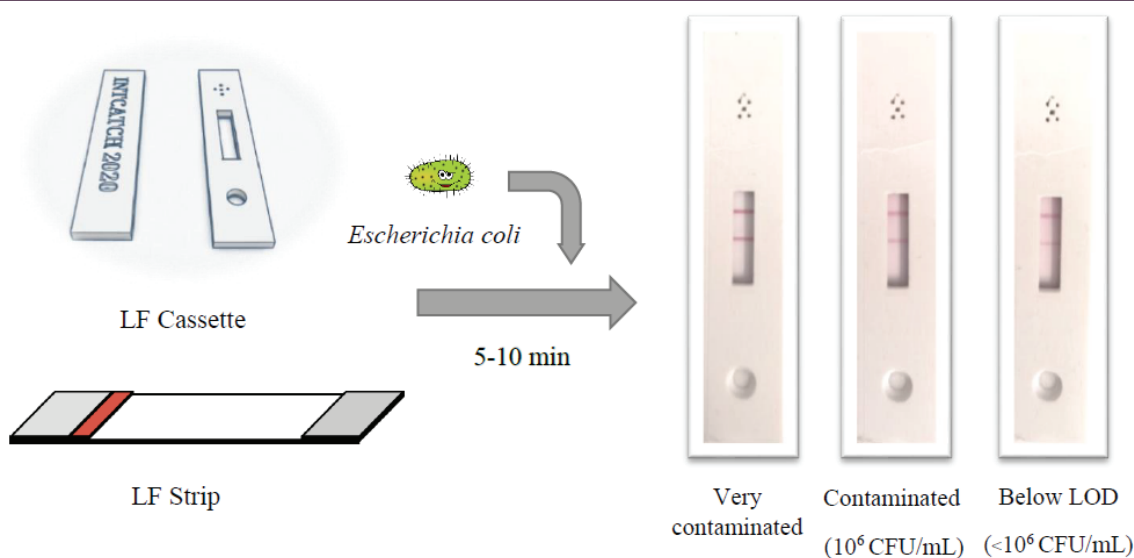
Lateral flow technology (similar to a “pregnancy test strip”) is used to detect general Escherichia coli (E. coli) as a polluting agent in water samples.

TOOL OVERVIEW

Technical Capabilities: Under laboratory conditions, this biosensor is able to detect Escherichia coli from a concentration of 10^6 CFU/mL to 10^9 bacteria/mL, providing a semiquantitative response.

Parameters:

- Range of Measurement: From 10^6 CFU/mL to 10^9 CFU/mL.
- Detection Limit (LOD): 10^6 CFU/mL
- Detection Time: 10 min
- Reproducibility: There can be differences from batch-to-batch, but LFS from the same batch produce reproducible responses.



APPLICATIONS OF TOOL

- Detection of E. coli in farm effluent waters.
- Detection of E. coli in city sewage waters.

BENEFITS OF TOOL

- Colorimetric output.
- Low cost production.
- Fast (5 - 10 minutes).
- Reproducible with the same batch.
- User friendly.

Contact details:

- Mrs. Dipl.Ing. Dr. Roza Allabashi (roza.allabashi@boku.ac.at)
BOKU-University of Natural Resources and Life Sciences
- Prof. Arben Merkoçi (arben.merkoci@icn2.cat)
Catalan Institute of Nanoscience and Nanotechnology



Water Pollution Detectives

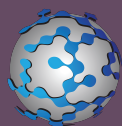
THE GREAT OUSE
URBAN RIVERS
IN LONDON

LAKE GARDA

TER RIVER

LAKE YLIKI

INTCATCH



2020

Development and application of Novel, Integrated Tools for monitoring and managing Catchments

INTCATCH will change the way current in which river and lake water monitoring is implemented. The project will accomplish this by developing efficient, user friendly water monitoring strategies and systems based on innovative technologies that will be able to provide real time data for important parameters. The new business model will transform water governance by facilitating sustainable water quality management by community groups and NGOs using a decision support system and eco-innovative technologies. The INTCATCH systems will be implemented and validated in the urban London and rural Great Ouse rivers in the UK and in Lake Garda (Italy) and will be demonstrated in Lake Yliki (Greece) and in River Tier (Spain).

INTCATCH Partners:



www.intcatch.eu



Co-funded by the Horizon 2020 programme of the European Union

For further information contact the coordinator, Mark Scrimshaw, at Brunel University London, mark.scrimshaw@brunel.ac.uk, Ant Parsons, leading on commercial exploitation, at Downstreams CIC Ltd., ant@downstreams.org or Simos Malamis, leading on dissemination of the project outcomes, at the National Technical University of Athens, smalamis@central.ntua.gr.

INTCATCH HAS RECEIVED FUNDING FROM THE EUROPEAN UNION'S HORIZON 2020 RESEARCH AND INNOVATION PROGRAMME UNDER GRANT AGREEMENT NO 689341.