MICA ADVANCE
ESCHERICHIA COLI

Why detect *Escherichia coli*?

E. coli is a bacteria commonly found in the intestines of humans and animals.

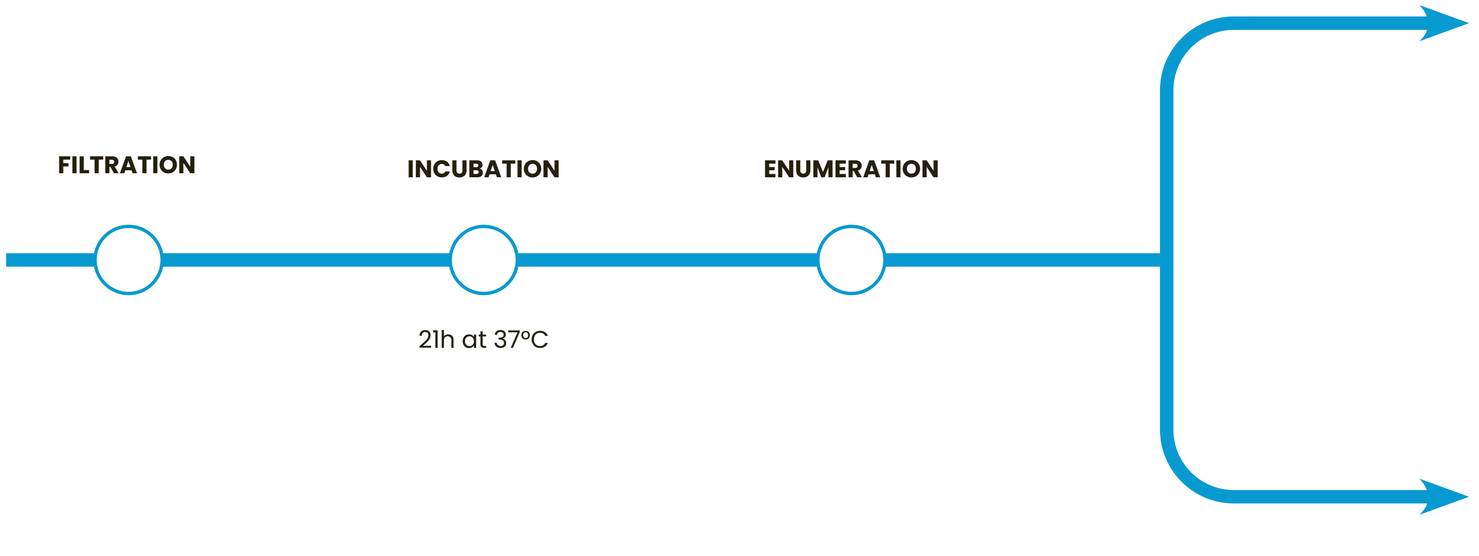
This contamination poses health risks, as some strains of *E. coli,* can cause severe illness, including diarrhea, kidney failure, and even death.

It can also be present in water, where its presence signals potential fecal contamination.

Contaminated water is a leading source of *E. coli* infections, with the bacteria often spreading through drinking water, irrigation, or poor sanitation practices.

TESTING WATER FOR *E. COLI* IS CRUCIAL TO PREVENT OUTBREAKS AND PROTECT PUBLIC HEALTH.

ISO 9308-1 reference method principle and protocol



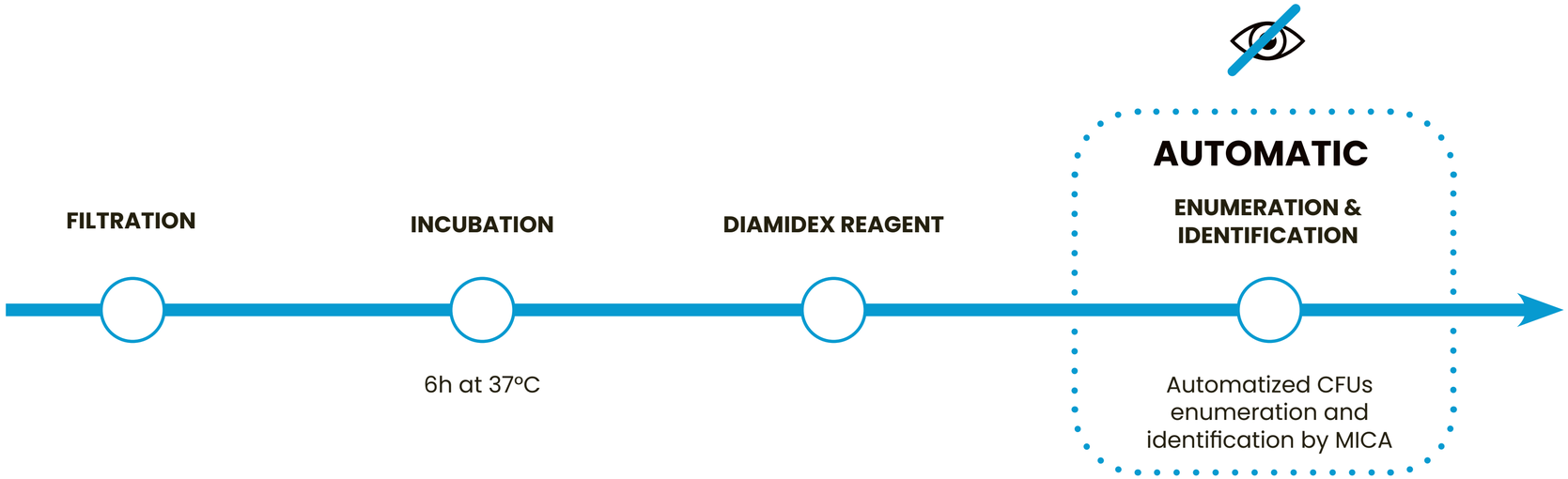
OUTCOMES

Escherichia coli and coliforms

Limit of detection : 1 CFU / 100ml

Results in 21 hours

MICA Advance *E.coli*: technical principle and protocol



OUTCOMES

Escherichia coli

Limit of detection : 1 CFU / membrane

Results in 6 hours

A complete process based on ISO 9308-1

MICA Advance *E. coli*: technical principal and protocol

The Diamidex reagent used have made *Escherichia coli* fluorescent.

100

MICA Advance takes 100 high resolution pictures of the membrane.

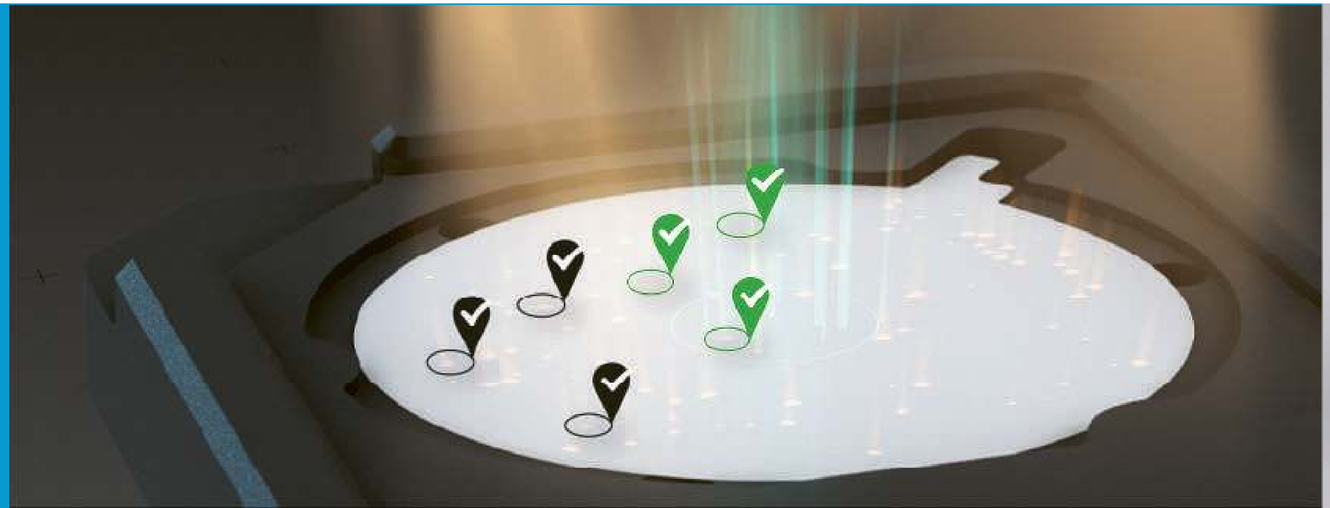
IR

MICA Advance image reconstitution program reassembles the 100 pictures of the membrane.

ML

MICA Advance *E. coli* Machine Learning analyzes the membrane image.

Eliminates each interfering fluorescent signal that is not *Escherichia coli* on the membrane.

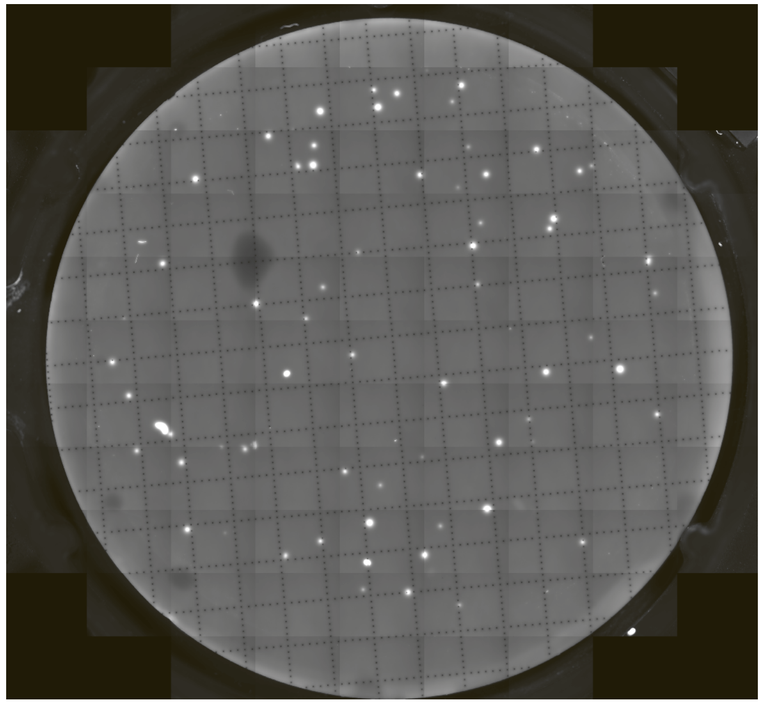


MICA Advance *E. coli*: results

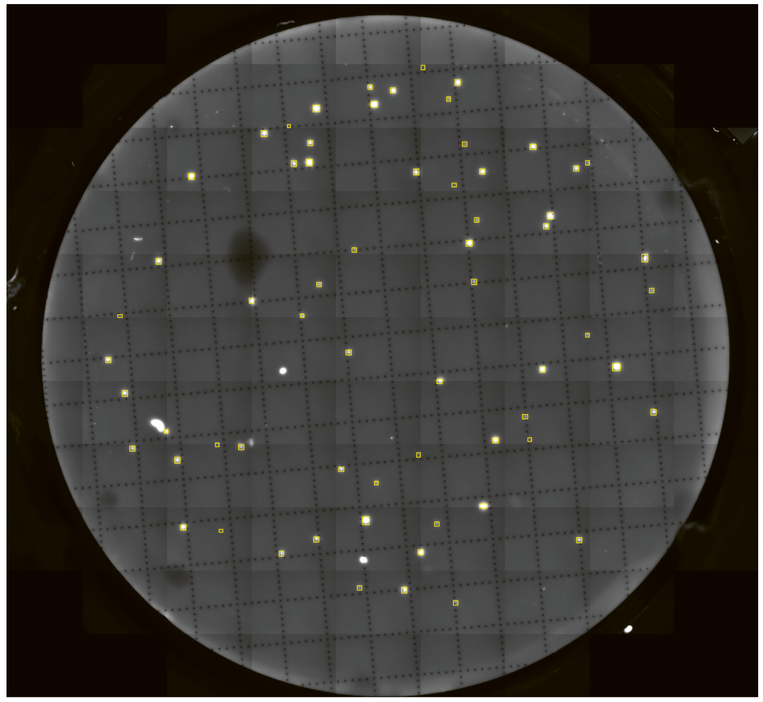
6h

MICA Advance 6h

Eye membrane visualisation at 6h



Scanning of the membrane



Automatic detection of E. coli by AI

Automatic detection of *E. coli* in 6 hours.

Escherichia coli rapid method

- Results in **6h** instead of 24 hours
- **Time saving** on manpower
- **Easy to use** and to integrate to the current workflow
- High **accuracy** and **repeatability**