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INTERNATIONAL IBERIAN
NANOTECHNOLOGY
LABORATORY

INTEGRATED MICRO TOTAL ANALYSIS SYSTEM FOR DNA/RNA ANALYSIS

An integrated platform for applications in food authenticity such as detection of foodborne pathogens and allergenic ingredients.

DNA-based methods are an attractive alternative for varietal identification presenting high specificity, sensitivity, and stability. Miniaturisation of DNA-based techniques can bring interesting advantages for food analysis such as portability of complex analytical procedures.

At INL, we have developed a fully integrated platform for DNA-based analysis with interesting applications for food authenticity and for the detection of foodborne pathogens and allergenic ingredients.

TRL
5

This platform integrates customised pumps, and valves, a Peltier-based heating system, and optical readout units allowing DNA amplification (PCR and isothermal DNA amplification) and detection in an integrated cartridge.

The system enables advanced DNA analysis on an easy--to-use format, with minimum interaction from operator, therefore reducing the possibility of contamination, and amenable to be deployed for decentralised analysis at the different points of need including farms, food industry, and cultivars, among others.

CONTACT US

+ **innovation@inl.int**

www.inl.int
Av. Mestre José Veiga,
Braga 4715-330, Portugal

+ Features

- Autonomous system
- Fully integrated
- Computer vision assisted
- Disposable cartridges with pinch capabilities
- User-friendly usage
- Avoids contamination between reactions

+ Suggested applications

- Food industry
- Control laboratories

+ Competitive advantages

- High sensitivity
- Low cost
- Low maintenance

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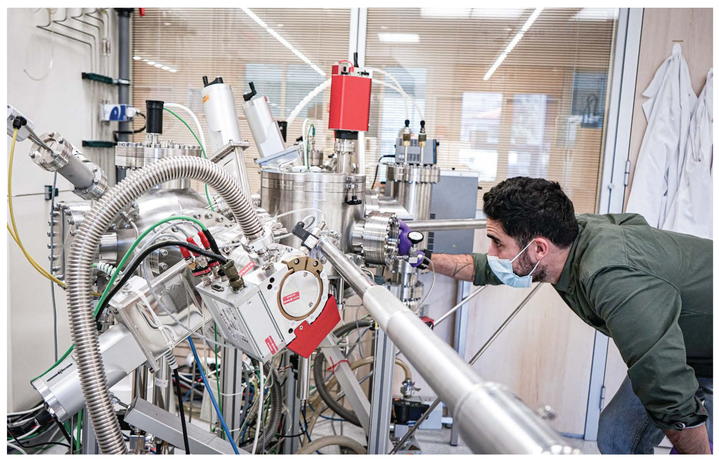

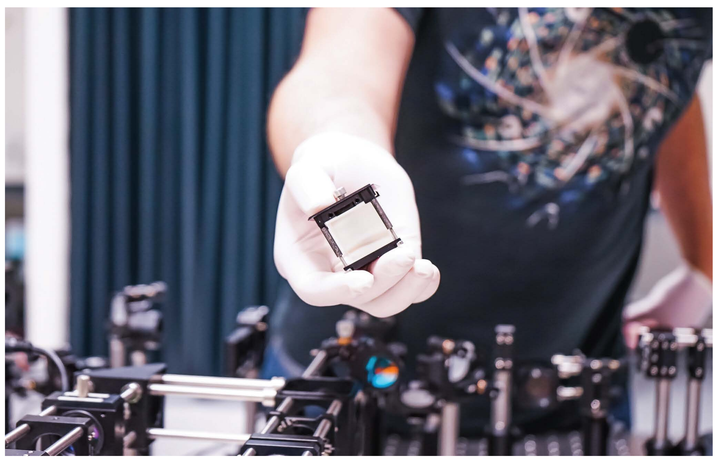

YOUR WORLDWIDE PARTNER FOR SCIENCE & INNOVATION

Shaping the future together in Clean Energy, Food, Health, Smart Digital NanoSystems, Sustainable Environment and Advanced Materials & Computing.

01 SCIENCE

Discover our areas of research and expertise, where we dive into nanoscience and intermix various disciplines to transform it into nanotechnology.

02 TECHNOLOGY

By nourishing on our multiple disciplines in house and with partners, we develop and deploy solutions to the market.

03 SERVICES

INL has state-of-the-art scientific equipment which can be used by internal and external stakeholders within the research, technology, and innovation fabric. You can access this open facility with expert support, either remotely or in-person, for full-service or for independent use after initial in-house training.

04 SOCIETY

INL is committed to disseminating to all audiences the nanotechnology concepts, to bring society closer to our scientific developments. Visit our website and explore our activities and events.

For more information:

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