

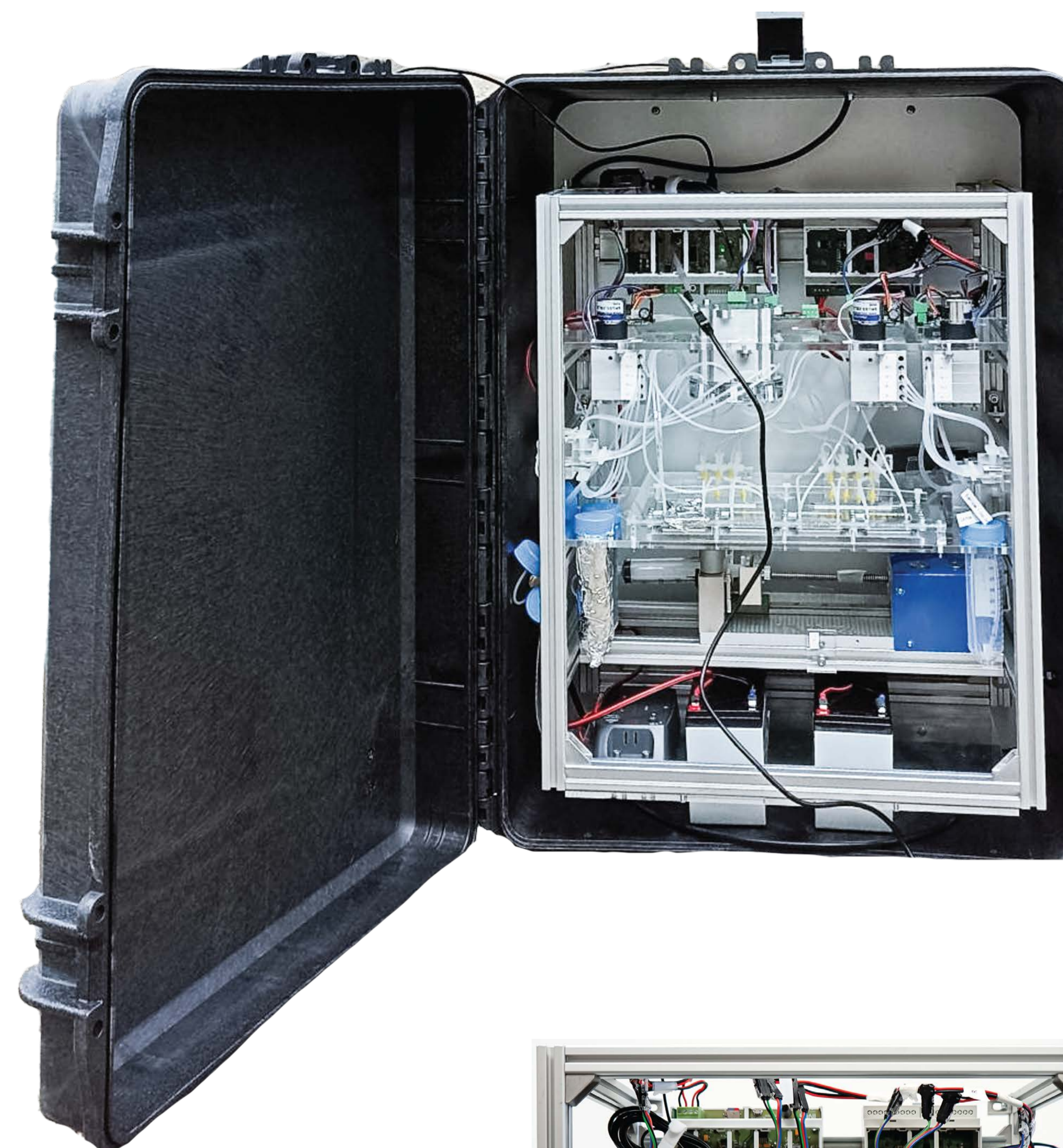
TOTAL MICROCYSTIN-LR CONCENTRATION MONITORING SYSTEM

Automated monitoring system for total microcystin with fully customised sample preparation components.

Total (free in water and cellular fraction) microcystin-LR concentration monitoring in freshwater is mandatory for drinking water (EU Drinking Water Directive, 2020) and highly recommended in any stagnant water, in particular the ones susceptible of being used as bathing or recreational water.

The maximum level in drinking water established is 1 µg/mL.

At INL, we have developed an automated monitoring system for total microcystin with fully customised sample preparation components as well as customised control electronics and cloud platform.



+ Features

- Autonomous system
- Battery powered
- Remotely accessible
- Over-the-air sample prep protocol definition
- Able to work without operator intervention during 1 month
- Linear range between 3.3×10^{-4} to 10^{-7} g/L
- Limit of detection (LOD) $< 10^{-7}$ g/L

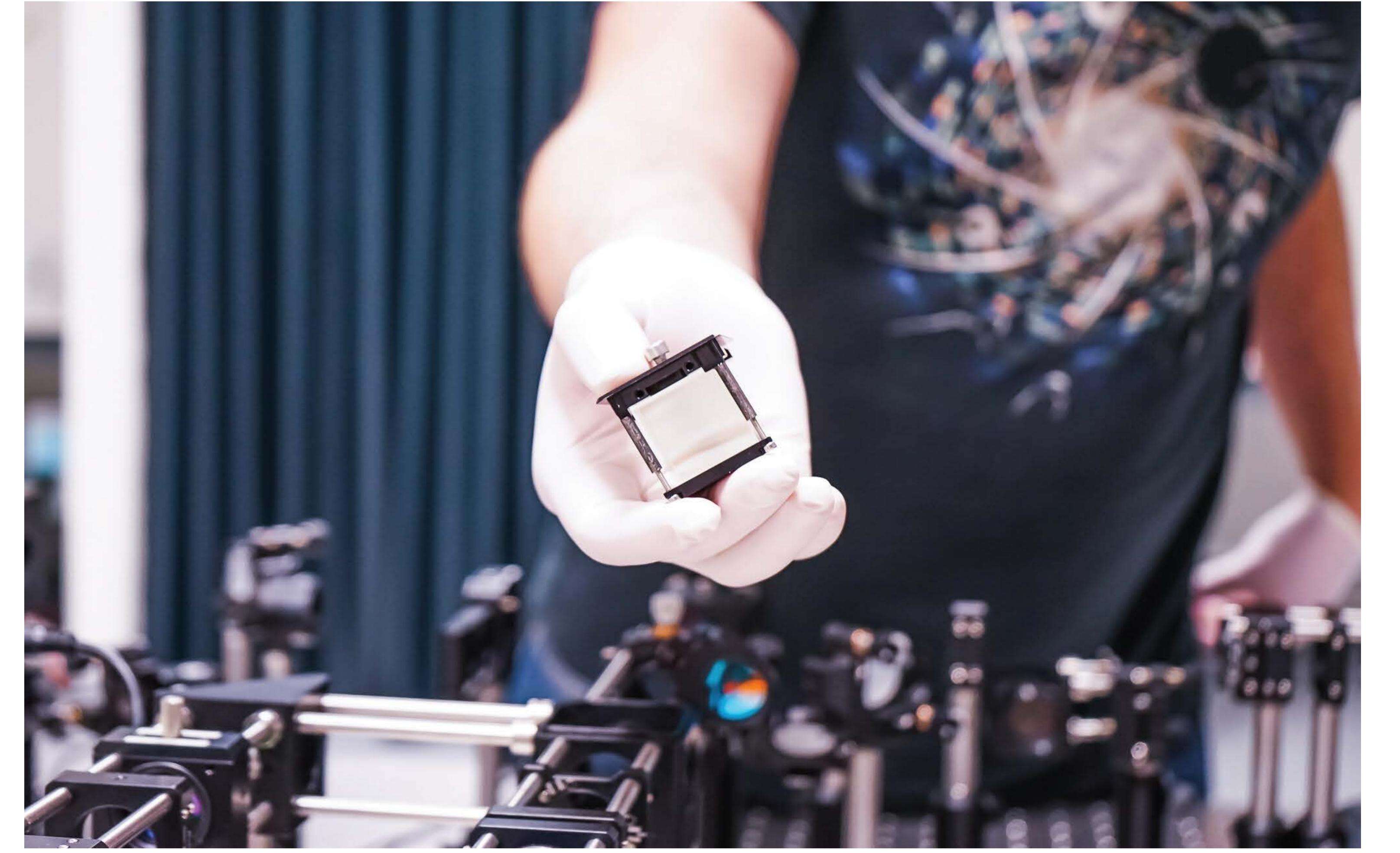
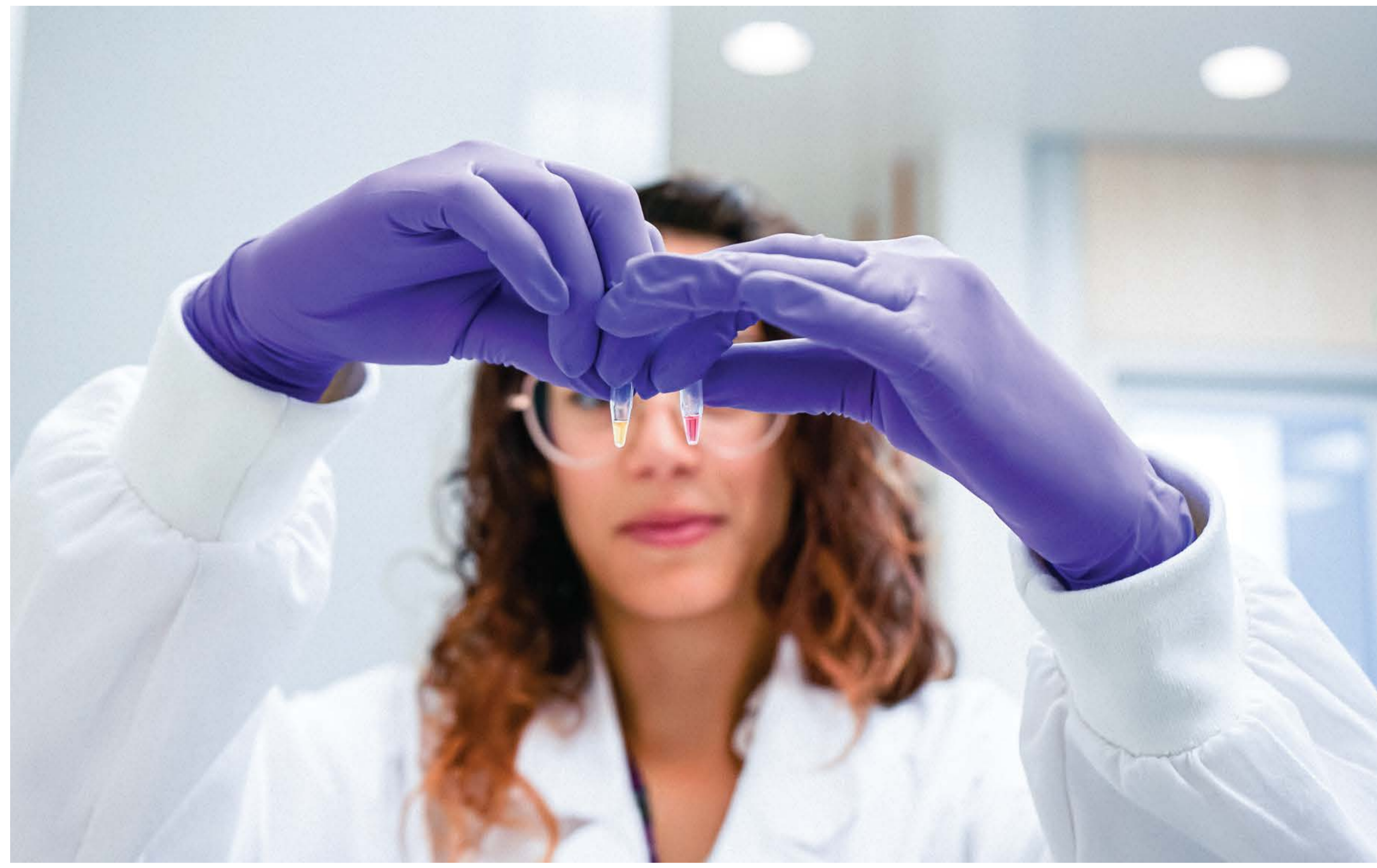
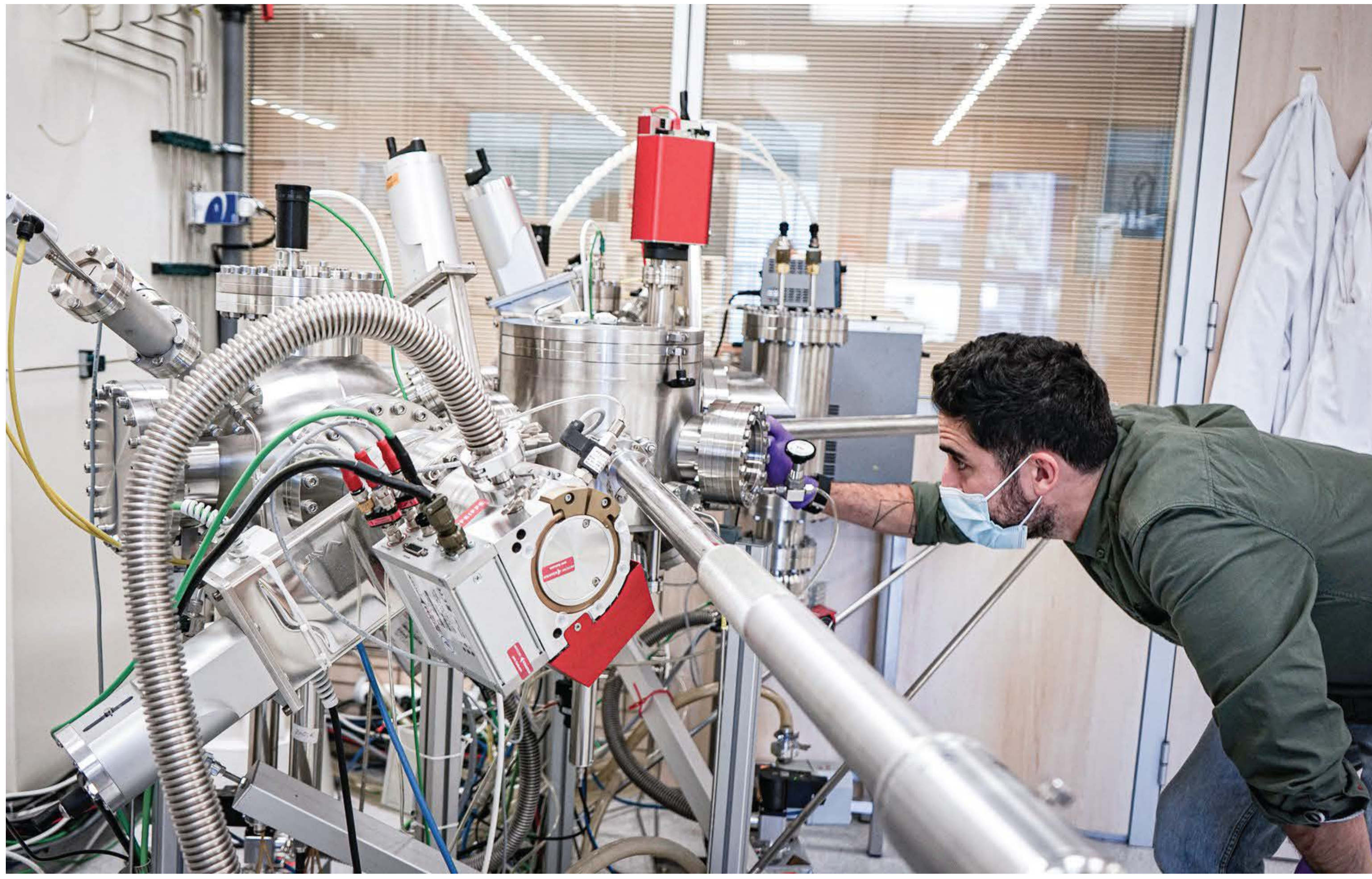
+ Suggested applications

Stagnant freshwaters (sources of water usage: reservoirs, dams, lakes)

+ Competitive advantages

- High sensitivity
- Low cost
- Robust fabrication

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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.

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.

02 TECHNOLOGY

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

04 SOCIETY

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

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