

SpectroInlets

Enabling real-time analysis

Real-time gas analysis

HER

OER

CO₂RR



CER

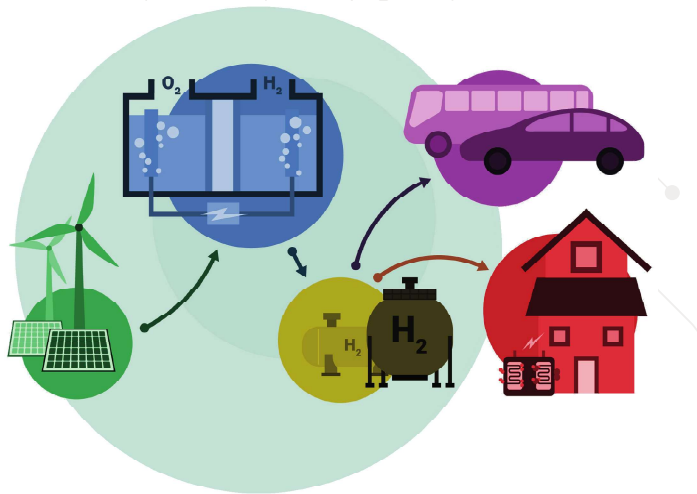
NH₃
synthesis

And much
more...

EC-MS Professional

EC-MS Professional applications

- **Electrocatalysis:** Enhancing catalytic efficiency and selectivity of electrochemical reactions, such as HER, OER and CO₂RR.
- **Material Science:** Developing novel materials with superior performance and stability.
- **Fundamental studies:** Mechanistic insights of the electrode – electrolyte interface and accurate determination of faradaic efficiencies.



Optimize Your Workflows

EC-MS Professional

- **Turnkey Solution:** Ready-to-use, integrated setup for quick start in cutting-edge research.
- **Real-time Experiments:** Access and analyze data instantly for dynamic experiment adaptation.
- **User-Friendly Software:** Manage experiments effortlessly with intuitive PC software.
- **Analytical data:** Easily export your synchronized data.
- **Expert Support and Training:** Comprehensive assistance and training from Spectro Inlets' experts.



Why EC-MS Professional?

- ✓ **Real-time and fully quantifiable**
- ✓ **Unprecedented sensitivity**
- ✓ **Negligible electrolyte evaporation** allowing long duration test
- ✓ **Turnkey solution with integrated software**
- ✓ **Documentation and support** by specialists
- ✓ **Training video** to allow for fast onboarding of new users of the instrument

Advantages over DEMS

Differential electrochemical mass spectrometry (DEMS)

- ✗ Not compatible with volatile electrolytes
- ✗ Loss of analyte to differential pumping
- ✗ High consumption of electrolytes
- ✗ Not fully quantitative

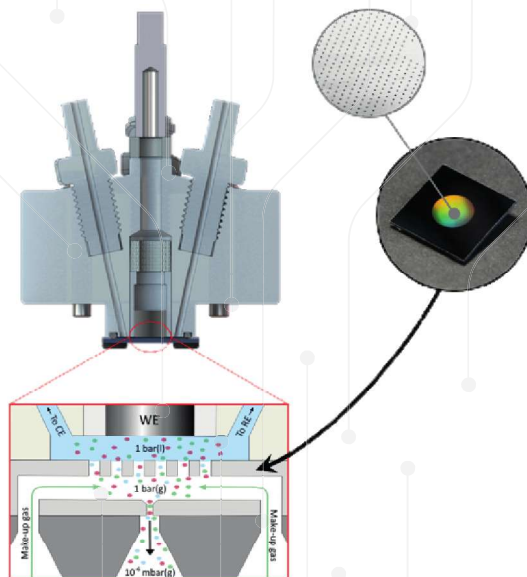
EC-MS Professional

- ✓ Fully compatible with volatile electrolytes
- ✓ No analyte loss – due to no differential pumping
- ✓ Very low electrolyte consumption
- ✓ Fully quantifiable
- ✓ No differential pumping/full analyte collection

www.spectroinlets.com

How is it working?

Our core technology is our membrane chip with a micro porous membrane



Combining electrochemistry (EC) with mass spectrometry (MS) provides a strong tool for analyzing electrochemical product formation. Through an optimized membrane chip with integrated microcapillary, Spectro Inlets offers a unique inlet, coupling the electrochemical environment to the vacuum conditions of the MS. The hydrophobic membrane facilitates transport of volatiles to the MS while inhibiting electrolyte evaporation.

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About Spectro Inlets

We are a company founded in 2016 by a team of engineers from the Technical University of Denmark (DTU). Our core technology is a unique microchip inlet system enabling mass spectrometry of volatiles in liquids, which is the result of more than 10 years intense R&D work.

Based on the chip inlet system, we have developed a portfolio of state-of-the-art gas detection systems for electrochemistry. Our EC-MS Professional, enables researchers to gain unique insights into material properties and Power-to-X research.

Contact us at

sales@spectroinlets.com

for further inquiries and to schedule a meeting with one of our electrochemistry experts or visit www.spectroinlets.com



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