

Case study #1

Proceas® Biogas

AP2E launches its new **ProCeas® Biogas** analyzer to meet the growing needs of the Biogas market. Biogas is made from the biological degradation of agricultural waste, agro-industry waste, household waste and sludge from sewage treatment plants.

The **ProCeas® Biogas** is a pre-calibrated infrared laser spectrometer for the real-time measurement of H₂S, CO₂, CH₄, O₂ and H₂O for monitoring the purification process of raw biogas towards clean biomethane, for heat production via cogeneration, and injection into the network. This analysis allows, for example, to measure H₂S content, which is highly corrosive for engines and pipelines.

The **ProCeas®** uses a single laser for multi-gas analysis (H₂S, CO₂, CH₄, H₂O) with ppb sensitivity for H₂S, a wide measuring range (ppm to %) for the other gases, fast response time, excellent stability overtime (no need for recalibration), and very low maintenance (pump).

These characteristics make this analyzer very competitive in terms of CAPEX and OPEX and have already convinced major gas operators in France and abroad as a tool for monitoring the quality of their biogas.



Case study #2

Measurement of tritiated water on radioactive nuclear waste cylinder

As part of a research project about monitoring the leakage of radioactive packages, AP2E has developed a low-activity tritiated water measurement analyzer. For this measurement, a micro-volume of water (1 µl) is directly injected using a syringe into the sealed measuring cell of a **ProCeas®** analyzer.

The vacuum (1 mbar a) vaporizes completely and immediately the water, the concentration of the radioactive compound HTO is measured thanks to its infrared spectrum, which differs from that of the standard water. The **OFCEAS** technique allowing to measure the compound in vapor phase and in real time has the advantage of no longer using bubbling and consumables techniques traditionally used for this type of measurement. A detectivity of 3.7 kBq / µL, corresponding to 60 ppb of HTO in water was obtained. This tritiated water measurement positions AP2E on the growing market of storage and transport of radioactive waste in France and abroad.



In the air

Hydrogen purity seminar ISO14687-2

In the framework of the current works in Europe to address the standardization needs of the fast emerging Hydrogen energy field (**EMPIR group**), AP2E organized, in its facilities, a technical workshop about the measurement of impurities in hydrogen for the fuel cells applications on the 6th of June.

This workshop has shown to all attendees the superior metrological performances of our multi-gas on-line analyzer: ppb sensitivity, high selectivity without cross interference and a fast response time (seconds), that make the **ProCeas®** an appropriate analyzer for the measurement of very low concentrations of pollutants/toxic gases for the fuel cells.

This workshop ended with the award of 2 new orders for analysis systems, reinforcing AP2E position on this promising market.



AP2Events

SIMER show

AP2E will exhibit on **SIMER** for its first time, industrial show dedicated to Measurement and Instrumentation.

This will take place in La Halle de Martigues next September 27-28th.

We will welcome all our customers and partners on our booth.

Do not hesitate to schedule early appointments with our experts.

