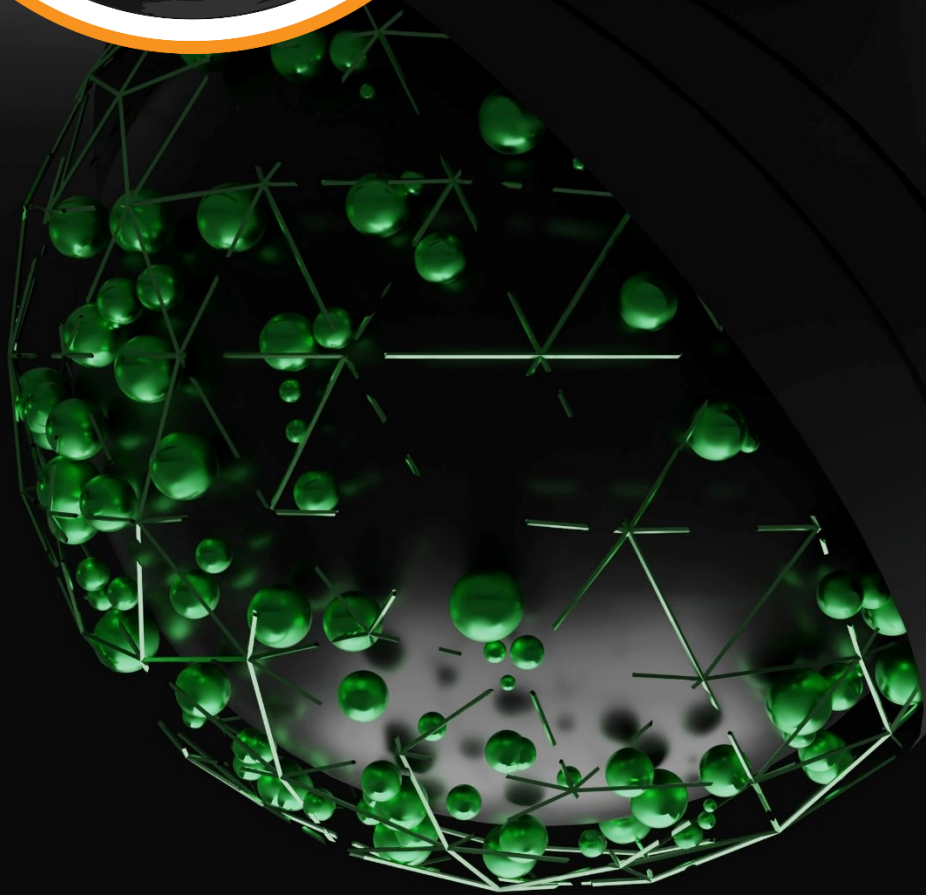


product overview



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Greenhouse gas analyzers

High precision concentration analyzers (CRDS technology) and portable compact systems (CEAS/ICOS technology) for the measurement of greenhouse gases in an atmospheric background at parts-per-billion (ppb) sensitivity with negligible drift.

- molecules : CO₂, CH₄, N₂O, H₂O (+CO & NH₃ as part of GHG analyzer)
- applications : air quality, atmospheric science, emission monitoring, ecology, agriculture & soil science
- supplier(s) : [Picarro](#), [Nikira Labs](#)



Trace gas analyzers

Real-time, high precision gas analyzers (CRDS, CEAS/ICOS, PTR-TOF technology) for the analysis of (toxic) trace gases with up to parts-per trillion (ppt) sensitivity for the use of safety & compliance analysis in a room or the environment.

- molecules : NH₃, CH₄, C₂H₂, C₂H₄, C₂H₄O, H₂S, HF, H₂CO, H₂O₂, HCl, VOC's
- applications : air quality, pharmaceutical, petrochemical, emission monitoring
- supplier(s) : [Picarro](#), [Ionicon](#), [Nikira Labs](#)



Air quality analyzers

Real-time, high precision, compact and robust gas analyzers (ICAD technology for highest sensitivity and chemiluminescence for AQ networks that require TÜV certification), and open-path remote sensing instruments (DOAS technology) for the measurement of nitrogen oxides (NO_x, NO₂, NO), HONO and other air pollutants such as SO₂, O₃, H₂CO and PM10/PM2.5/PM1 for air quality monitoring.

- molecules : NO₂, NO, SO₂, O₃, H₂CO, H₂O, HONO, BrO, ClO₂, PM10, PM2.5, PM1
- applications : air quality monitoring (in- & outdoor), ground-level validation of satellite remote sensing, mobile emission measurements of vehicles and ships
- supplier(s) : [Airyx](#), [Picarro](#), [Thermo Fisher Scientific](#)



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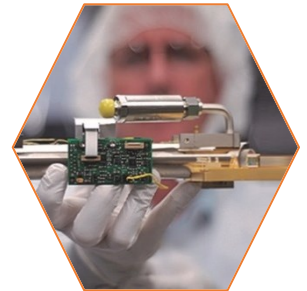
IONICON



Isotopic analyzers

High precision isotope analyzers to measure and quantify stable isotope ratios resolving biochemical processes encoded in your sample.

molecules : $\delta^{13}\text{C}$ for CO_2/CH_4 ; $\delta^{15}\text{N}$ & $\delta^{18}\text{O}$ for N_2O ; $\delta^{18}\text{O}$, δD & $\delta^{17}\text{O}$ for H_2O
application(s) : atmospheric science, agriculture, soil science, ecology, hydrology, oceanography, paleoclimatology, food & beverage, petrochemical
supplier(s) : [Picarro](#)



Soil flux chambers & sensors

Gas monitoring instruments, such as automatic soil flux chambers, CO_2 sensors (Forced diffusion technology) to observe different vegetation types and measure specific ecosystem processes, such as soil respiration and net ecosystem exchange.

molecules : depending on the analyzer for flux chamber use, CO_2 for FD sensor
applications : agriculture & soil science, measuring net ecosystem exchange (NEE), partitioning NEE
supplier(s) : [Eosense](#)



Lysimeters and ecotrons

Delineated soil columns for laboratory or field use to determine water balance variables AND experimental units (ecotron) for the comprehensive study of ecosystem functions in the soil-plant-atmosphere continuum under controlled boundary conditions; with a broad range of (meteorological) sensors.

applications : agriculture & soil science, ecology & plant physiology, hydrology
supplier(s) : [Umwelt Geräte Technik \(UGT\)](#)



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The Dutch Scientist is the local distributor in the Nordics, Benelux, UK & Ireland for scientific & industrial instrumentation used to study/measure climate change effects as well as monitoring health & product safety.

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