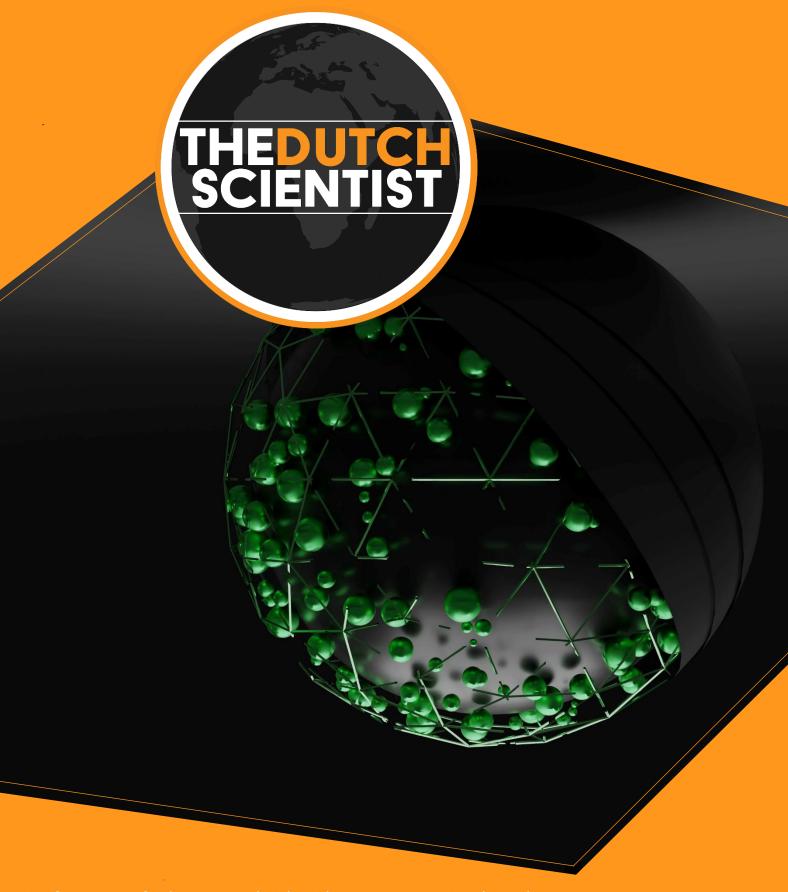
# product overview





## **Greenhouse gas analyzers**

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

molecules : CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, H<sub>2</sub>O (+CO & NH<sub>3</sub> as part of GHG analyzer)

applications : air quality, atmospheric science, emission monitoring, ecology,

agriculture & soil science

supplier(s) : Picarro



### **Trace gas analyzers**

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

molecules : NH<sub>3</sub>, CH<sub>4</sub>, C<sub>2</sub>H<sub>2</sub>, C<sub>2</sub>H<sub>4</sub>, C<sub>2</sub>H<sub>4</sub>O, H<sub>2</sub>S, HF, H<sub>2</sub>CO, H<sub>2</sub>O<sub>2</sub>, HCl, VOC's applications : air quality, pharmaceutical, petrochemical, emission monitoring

supplier(s) : <u>Picarro</u>, <u>Ionicon</u>



#### Air quality analyzers

Real-time, high precision, compact and robust gas analyzers (ICAD technology) and open-path remote sensing instruments (DOAS technology) for the measurement of nitrogen oxides ( $NO_x$ ,  $NO_2$ , NO), HONO and other air pollutants such as  $SO_2$ ,  $O_3$  and  $H_2CO$  for air quality monitoring.

molecules : NO<sub>2</sub>, NO, SO<sub>2</sub>, O<sub>3</sub>, H<sub>2</sub>CO, H<sub>2</sub>O, HONO, BrO, ClO<sub>2</sub>

applications : air quality monitoring (in- & outdoor), ground-level validation of

satellite remote sensing, mobile emission measurements of

vehicles and ships

supplier(s) : Airyx, Picarro











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### **Isotopic analyzers**

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

molecules :  $\delta^{13}$ C for CO<sub>2</sub> and CH<sub>4</sub>,  $\delta^{18}$ O,  $\delta$ D and  $\delta^{17}$ O for H<sub>2</sub>O

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<sub>2</sub> 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,  $\mathsf{CO}_2$  for FD sensor

applications : agriculture & soil science, measuring net ecosystem exchange

(NEE), partitioning NEE

supplier(s) : <u>Eosense</u>



## **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) : <u>Umwelt Geräte Technik (UGT)</u>











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The Dutch Scientist is the local (sales) 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.

## **The Dutch Scientist**

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