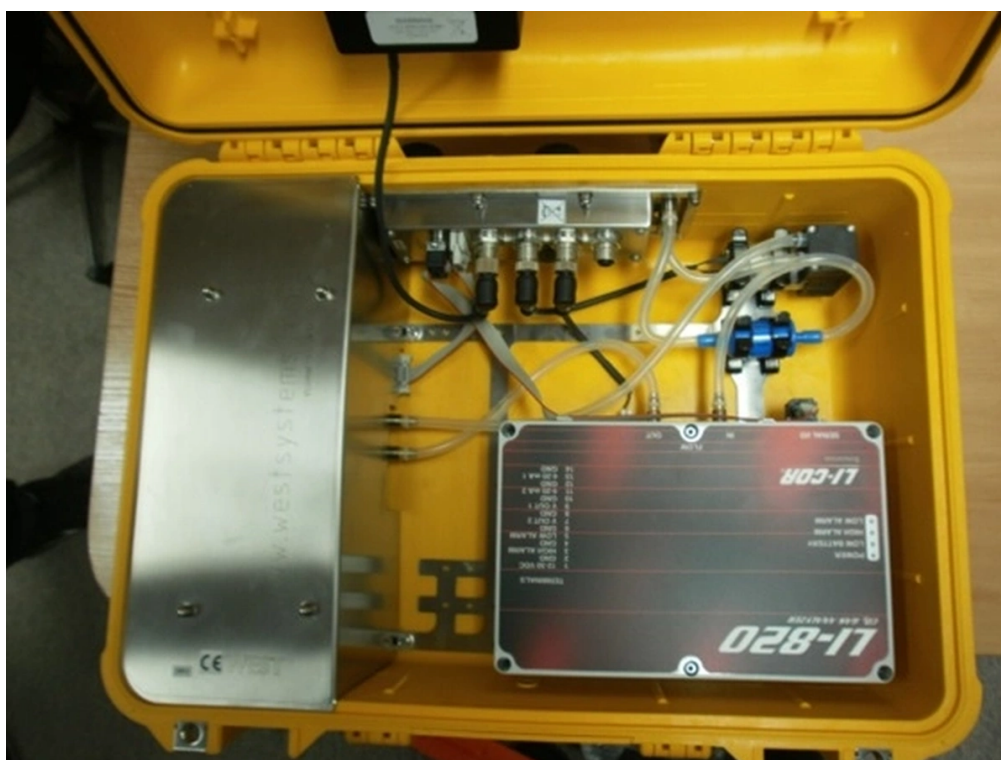


West Systems Methane and Carbon Dioxide diffuse flux meter



Technical description:

The device measures methane and carbon dioxide emissions directly in the field. The operation of the device consists in taking air from above the soil surface, which accumulates in the accumulation chamber. Then, the components are fed into detectors connected in series, in which the concentrations of methane and carbon dioxide are determined. The device is equipped with two detectors: methane WS-CH4-TLD (range from 0.1 ppm to 10 vol%) and carbon dioxide LI820 (NDIR) (range from 0 to 20,000 ppm).

Trade name: West Systems high resolution Methane and Carbon Dioxide diffuse flux meter with equipment, software and palmtop

More details: </equipment/fluksometr-miernik-strumienia-emisji-metanu-i-dwut/>

Access type: External

Type of accreditation / certificate: Not applicable

Contact person: Twaróg Anna

Contact person url: <https://skos.agh.edu.pl/osoba/anna-twarog-9247.html>

Responsible body: Department of Energy Resources

Group / laboratory / team: Laboratorium Chromatografii Gazowej i Powierzchniowych Metod Geochemicznych

Last update date: May 27, 2023, 3:18 p.m.

Year of commissioning: 2016

IDUB research areas:

(PRA 1) Sustainable energy technologies, renewable sources of energy, energy storage, and resource management. Design, production, application, synergy, and process integration

(PRA 3) Water-energy-climate: interdisciplinary approach to sustainable development

Research capabilities:

Possibility to determine the concentrations of methane and carbon dioxide over time. Determination of methane and carbon dioxide flux.

Measurement capabilities:

Methane detector WS-CH₄-TLD (range from 0.1 ppm to 10 vol%) and carbon dioxide LI820 (NDIR) detector (range from 0 to 20,000 ppm).

Methane Flux Measurement range: from 0.5 mmol/m²/d to 1000 mol/m²/d.

Carbon dioxide Flux Measurement range: from 1 mmol/m²/d to 300 mol/m²/d.

Conditions for providing infrastructure:

With the consent of the head of the Department of Energy Resources and under the supervision of the laboratory supervisor.