**Technická specifikace přístroje pro měření půdní respirace**

System for measurement of CO2 emission from soil in filed condition, independent on external power supply. Equipment should be widely used in scientific literature, please provide references to papers using this equipment in scientific journals reported in Web of Science. Equipment should meet following specifications:

CO2 non-dispersive infrared gas analyser

Measurement range: 0-20'000 ppm

Accuracy: 1.5% of reading calibration drift  
Drift at 0 ppm: <0.15 ppm/°C  
Span drift1: < 0.03 %/°C  
Total drift at 370 ppm: <0.4 ppm/°C  
RMS Noise at 370 ppm with 1 sec signal averaging: <1 ppm  
Sensitivity to water vapor: < 0.1 ppm CO2/mmol/mol H2O  
  
 H2O non-dispersive infrared gas analyser

Measurement Range: 0-80 mmol/mol  
Accuracy: 1.5% of reading Calibration drift  
Drift at 0 ppt: <0.003 mmol/mol/°C  
Span Drift: <0.03 %/°C Total  
Drift at 10 ppt: <0.009 mmol/mol/°C  
RMS Noise at 10 ppt with 1 sec signal averaging: <0.01 mmol/mol  
Sensitivity to CO2: <0.0001 mmol/mol H2O/ppm CO2  
  
\* ATMOSPHERIC PRESSURE SENSOR   
Measurement Range: 15-115 kPA  
Accuracy: 1.5% over 0 to 85 °C  
  
\* OPERATING RANGE  
Temperature: ­20 °C to 45 °C  
Relative Humidity: 0 to 95% RH, Non-Condensing  
  
\* HOUSING:  
Weatherproof Rating: Tested to IEC IP55 standard  
Connections: Weatherproof connectors  
\* No use of chemicals for operation

\* Unattended long term measurements in the field  
\* Remote operation over Ethernet  
\* Wireless operation  
  
\* CHAMBERS:  
Diameter: <= 20cm  
Pressure Vent: wind speed and wind direction independent  
Temperature: ­20 °C to 45 °C  
Relative Humidity: 0 to 95% RH, non-Condensing