



ETHYLENE ANALYSER

Measurement down to 10 ppb

EASI-1

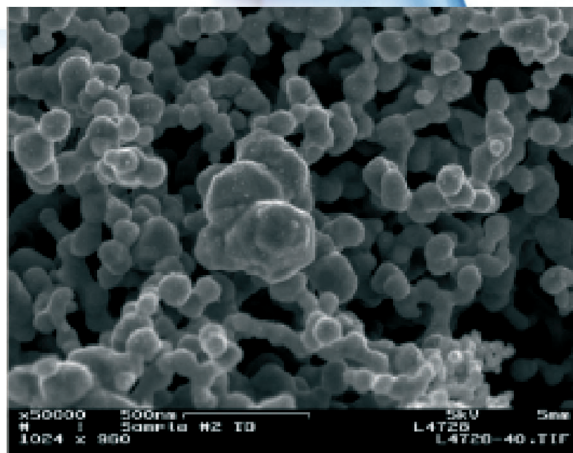
Ethylene Atmosphere Sampling Instrument

PRODUCT OVERVIEW

The **EASI-1** analyzer provides accurate real-time measurement of ethylene gas concentrations, in a compact instrument suitable for field and laboratory use. At the core of the instrument is a proprietary nanoporous gold sensor technology, licensed from Fluid Analytics in USA, that offers extraordinary sensitivity to ethylene, at levels as low as 10 ppb in the air.

Ethylene is a plant hormone produced by trees, plants, fruits, and vegetables, in response to stress, and during ripening and maturity. Measurements of ethylene gas present in the air have been used as an agricultural diagnostic tool for many decades. However, in the past, sensitive ethylene measurements were available only to expert users: primarily laboratory researchers and scientific equipment technicians.

EASI-1 has been designed for growers, storage facility owners and operators, and researchers alike, to increase the value of their products and services.



FEATURES

- High sensitivity down to few ppb
- High selectivity to ethylene with little to no cross sensitivity
- Real-time, continuous measurement
- Built in sampling pump
- Quick connections for air inlet and outlet
- User adjustable sampling rate
- Compact and portable
- Data logging for unattended long-term measurements
- Rechargeable battery
- Front panel display with alarm and status indicator
- Easy and automatic calibration



OPTIONAL FEATURES

- Integrated O₂ - CO₂ sensors (O₂ zirconium cell 0-25% - CO₂ Infra-red cell 0-10%)
- Ethernet networking and USB support
- Pre-filter elements to further reduce cross-selectivity
- Data logging software interface for unattended long-term measurements
- 1-MCP sensor
- Calibration kit

POTENTIAL APPLICATIONS

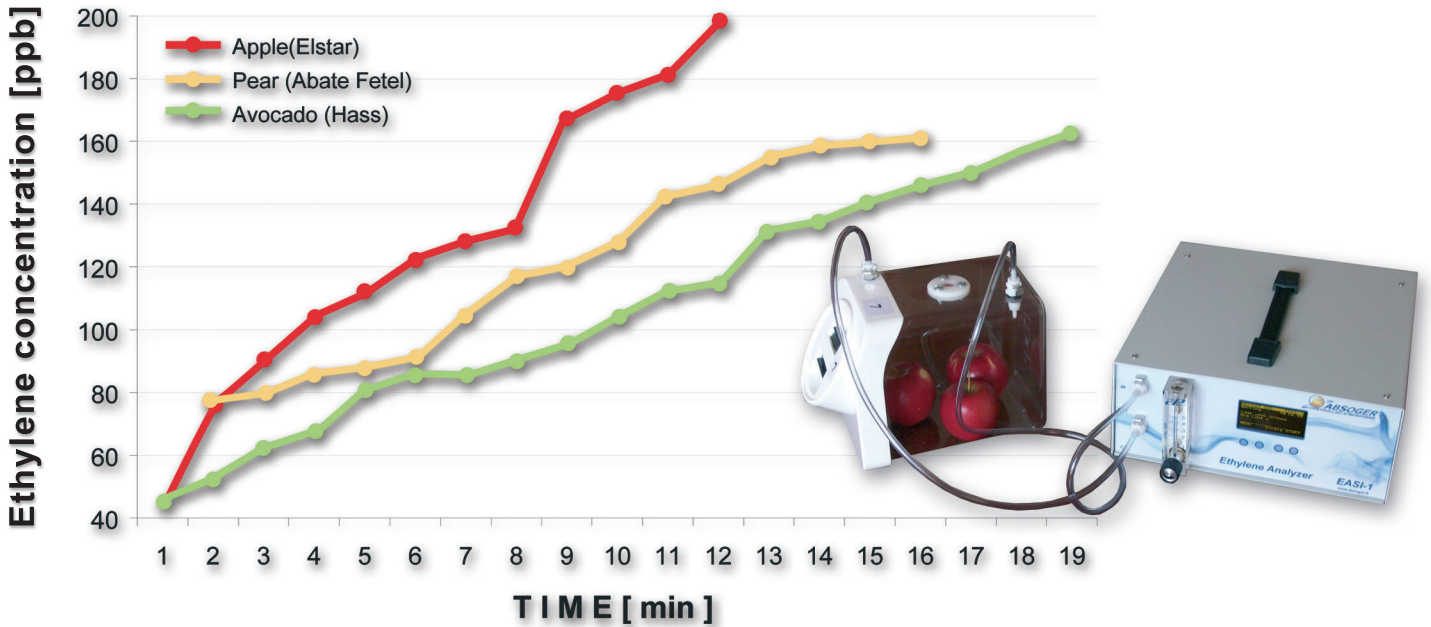
- Postharvest CA storage room monitoring (Kiwifruit, Apple, Pear, Avocado, Melon, Banana, Passion Fruit, etc.)
- Refrigerated shipping containers monitoring
- Fruit ripening room ethylene control
- Single fruit ripeness indicator
- General gas sensing



PERFORMANCE

Continuous sampling from a jar containing a single apple, pear or avocado is possible for measurement of the rate of production of ethylene (breathing rate). It is important to know the ethylene production rate of fruit prior to and during CA storage. For example, late harvest apples may produce too much ethylene (e.g. $\geq 1 \mu\text{l kg}^{-1} \text{h}^{-1}$ in CA conditions) to allow long term storability. **EASI-1** provides the accuracy, a real time response necessary to provide these measurements in CA room, in fields or in a laboratory*.

ETHYLENE PRODUCTION RATE MEASUREMENT



The analyzer provides extremely linear responses at low ethylene concentrations of below 10 ppm. This linearity is critical for simple calibration and measurement over a wide range of concentrations.

MEASUREMENT ACCURACY

