

# BiovisiON

*A complete solution for stable isotope analysis in the Food Industry*



Small footprint



Ease of use



Advanced data analysis



Low cost of ownership



# BiovisiON

*Italian or  
Greek?*

As the supply chains that deliver food stuffs to our doors grow ever more complex it becomes more difficult to ensure that we can trust those foods. Stable isotope analysis can detect fraudulent adulteration of premium and protected foods using their uniquely inherent isotope signature as well as confirming the true origin of ingredients. This helps guarantee the safety of the public as well as the future of these culturally important foods. With the same principle,

the flavorings industry better protects its products through multi-elemental isotopic fingerprinting to ensure that their products can be distinguished from fraudulent copies.

BiovisiON is a critical tool in the arsenal for protecting the consumer and gives more laboratories greater capability to detect unscrupulous behaviour. With low running costs and minimal contact time, BiovisiON provides significant advantage to your laboratory.

*A powerful combination.*

④ Market leading **isoprime visION** stable isotope analyzer



## ionOS® is the most advanced stable isotope software ever produced.



### ionOS KEY FEATURES

- Incredible new capabilities for acquisition and data processing.
- Elegant user interface with contextual control.
- Intelligent and automatic instrument performance optimization.
- Instantaneous data processing with dynamically updating results.
- Import your data from 3<sup>rd</sup> party instruments.

ionOS works in concert with the **isoprime visION** and **centrION** to provide an unrivalled level of intelligent control. Designed completely from the ground up and uniquely for stable isotope analysis, ionOS is the most sophisticated yet simple software ever created. Its clean user interface belies the level of sophistication within, giving users unrivalled capabilities to generate exceptional data with ease.

Bio**visION** reclaims responsibility for sample analysis from the user by offering incredible functionality both pre- and post-acquisition significantly reducing instrument contact time.

## isoprime visION is the most elegantly simple stable isotope analyzer ever created.

Simplicity is what **isoprime visION** is about. Creating something simple seems, well, simple. In fact, simplicity can only be achieved once the fundamental requirements of our customers are understood. With this clarity, **isoprime visION** offers a completely new experience of stable isotope analysis. An experience where the user is free from the routine chores of maintenance allowing them to focus on the science, not the instrumentation.

**isoprime visION** offers exceptional bulk and compound specific isotope analysis through market leading technology from Elementar and Agilent Technologies. Harnessing this technical ability through the **isoprime visION** finally opens the power of stable isotopes to practically any laboratory.



### isoprime visION KEY FEATURES

- Almost 50 % smaller instrument than any other currently available
- Straightforward analysis and intelligent control for incredible ease of use
- Significantly reduced consumption of laboratory resources
- Good-For-Go control significantly reduces instrument contact time
- 100 V amplification for large dynamic range samples
- Unique purge & trap chromatography for exceptional separation of combustion gases
- Truly multi-elemental analysis of N, C, H & S stable isotopes is possible using patented technology
- Patented Backflush Technology when analyzing oxygen isotopes of organic materials completely separates contaminant N<sub>2</sub> from CO before analysis
- Zero blank ball valve sample introduction for low concentration nitrogen analysis
- 120 position sample carousel which can be added to in real time
- Auto sample dilution

Ⓢ Market leading elemental analyzer



## BioVISION ENHANCEMENTS

- Utilizing compound specific isotope analysis with the Agilent 7890 GC opens up capabilities for analysis of complex mixtures such as olive oils, flavor and fragrance compounds and other ingredients for isotope fingerprinting
- Generate the fastest truly multi-elemental fingerprint of your sample with the patented NCHS analysis from a single organic sample
- $^{18}\text{O}$  &  $^2\text{H}$  are useful geolocation indicators and can be analyzed in fluids using the vario LIQUID sampler
- Perform accurate weighing with 6 figure analytical microbalance for high precision elemental analysis.

Expand your research further.

### Elemental Analysis

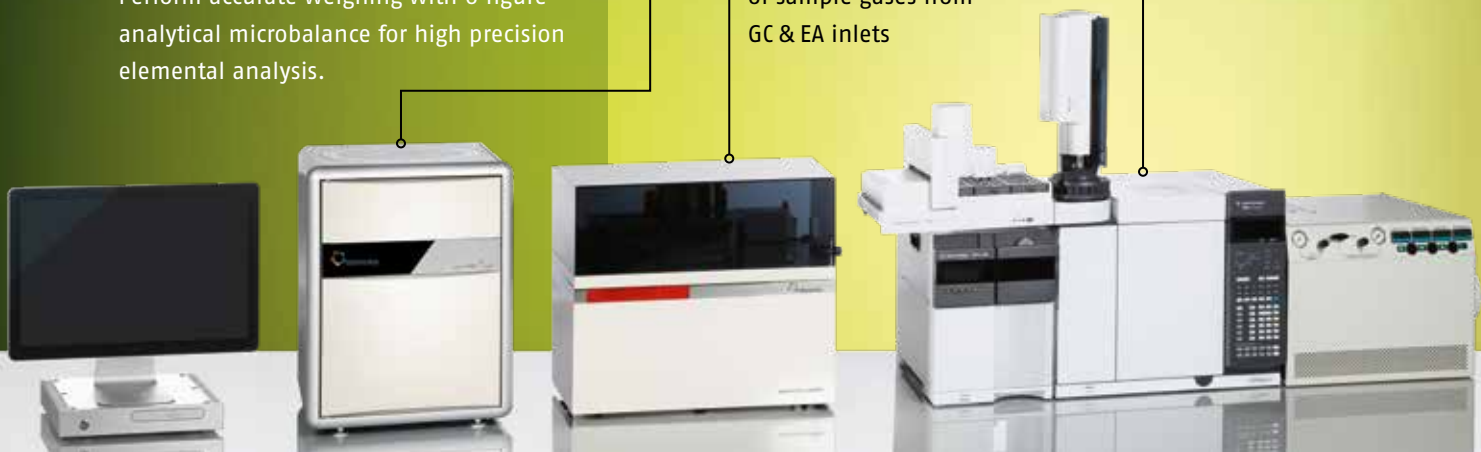
Conversion of bulk organics to sample gases prior to isotope analysis

### Isotope Analysis

Intelligent analysis of sample gases from GC & EA inlets

### Gas Chromatography

Separation of volatile organics and real time conversion to sample gases



## RESEARCH AREAS SERVED

- Food analysis contract laboratories
- Public food & farming laboratories
- Private food production facilities
- Academic research groups

## SAMPLE TYPES ANALYZED

- Fruit pulp and vegetable matter
- Food protein analysis
- Bulk proteins
- Olive oils
- Flavorings, aromas and essential oils



### Small footprint

Almost 50 % smaller than any other commercial stable isotope analyzer



### Ease of use

Good-For-Go control allows one click instrument set-up



### Advanced data analysis

The most powerful stable isotope data processing software ever created



### Low cost of ownership

Instrument sleep / wake-up functions for reduced consumption of resources

### Elementar – your partner for elemental analysis

Elementar is the world leader in high performance analysis of organic elements. Continuous innovation, creative solutions and comprehensive support form the foundation of the Elementar brand, ensuring our products continue to advance science across agriculture, chemical, environmental, energy, materials and forensics markets in more than 80 countries.

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