

# Geovision

*A complete solution for stable isotope analysis in Earth Sciences*



Small footprint



Ease of use



Advanced data analysis



Low cost of ownership



# Geovision

*Snowball or  
Greenhouse?*

**IONOS** is the most advanced stable isotope software ever produced.

**IONOS** works in concert with the **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.

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

## 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.

The application of stable isotope analysis in the diverse Earth Sciences is an established technique and has been exploited with great success to further our understanding of the world which we inhabit, as well as those we don't. It is an invaluable tool to understand the macro and micro cycling mechanisms of the organic elements of C, O, H, N & S through the lithosphere by natural processes.

**Geovision** is the ideal solution for unpicking these complex processes which control the natural world.

**Geovision** brings stable isotope analysis to a sophisticated audience looking for simpler instrumentation with improved resource efficiency yet high performance to analyze their most challenging samples.

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

Simplicity is what **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, **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.

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



*A powerful combination.*

Ⓢ **Isoprime**  
Market leading **visION**  
stable isotope analyzer



Ⓢ **Elementar**  
Market leading elemental analyzer



## 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 gases
- Patented back-flushing technique in pyrolysis mode
- Zero blank ball valve sample introduction
- Exceptional SO<sub>2</sub> performance for analysis of inorganic sulfur containing materials
- Auto sample dilution

## GeoVISION ENHANCEMENTS

- Go deeper into your samples by adding  $\delta^{13}\text{C}$ ,  $\delta^{15}\text{N}$  &  $\delta\text{D}$  compound specific isotope analysis with Agilent 7890 GC for biogeochemical analysis
- For complete confidence in your GC-IRMS analysis, add the Agilent 5977A mass selective detector for simultaneous compound identification and isotope analysis
- Perform accurate weighing with 6 figure analytical microbalance for high precision elemental analysis
- Utilize enriched isotopes to probe complex natural interactions with automatic amplifier switching

Expand your research further.

### Elemental Analysis

Conversion of bulk organic and inorganic materials 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

- Academic earth sciences including geochemistry, paleoclimate, hydrology and marine sciences
- National geological surveys
- Contract geoscience laboratories

## SAMPLE TYPES ANALYZED

- Mineral derived sulfates & sulfides
- Nitrates from the hydrosphere
- Biogenic silicate, carbonate and apatite materials
- Soils, sediments & clays
- Organic materials



### 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

### Elementargroup – your partner for elemental analysis

Elementargroup is the world leader in high performance analysis of organic elements. Continuous innovation, creative solutions and comprehensive support form the foundation of the Elementar and Isoprime brands 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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