



Advancing Automation Together

IGNIVIUS

TOC/TN_b ANALYZER

Enhance efficiency, accuracy, and reproducibility in laboratory workflows



Developed by TOC Experts

Combining Decades of Combustion Expertise

IGNIVIUS is the result of a unique collaboration between Skalar and TRACE, two organizations with decades of experience in combustion-based TOC analysis.

By combining proven technologies with innovative new developments, IGNIVIUS has been designed to meet the demands of modern laboratories for reliability, productivity and ease of use.

The result is a next-generation TOC & TNb analyzer that delivers uncompromising performance across a wide range of applications.

Designed for Modern Laboratories

Today's laboratories require more than accurate results.

They need maximum uptime, high sample throughput, reliable automation and confidence in every measurement.

IGNIVIUS combines intelligent automation, advanced combustion technology and robust engineering to help laboratories increase productivity while maintaining analytical excellence.

Applications

Environmental

- Drinking water
- Surface water
- Groundwater
- Wastewater

Chemical

- Production monitoring
- Raw materials

Energy

- Cooling water
- Condensate
- Process streams



Comprehensive Carbon & Total Bound Nitrogen Analysis

Advanced TOC & TN_b Analysis

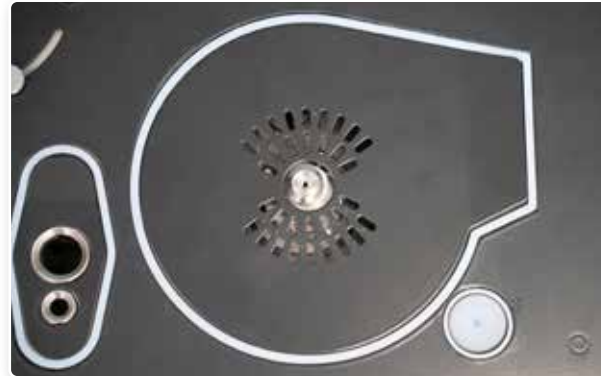
IGNIVIUS combines high-temperature catalytic combustion with advanced detection technology to deliver accurate and reliable carbon and total bound nitrogen analysis.

The analyzer supports the determination of:

- Total Carbon (TC)
- Total Inorganic Carbon (TIC)
- Total Organic Carbon (TOC)
- Non-Purgeable Organic Carbon (NPOC)
- Purgeable Organic Carbon (POC)
- Dissolved Organic Carbon (DOC)
- Total Bound Nitrogen (TN_b optional)

Carbon is measured using a highly sensitive NDIR detector, while total bound nitrogen can be added through optional CLD detection.

Designed for environmental, industrial and process laboratories, IGNIVIUS provides reliable results across a wide range of sample matrices.



Direct Injection Technology

Built for Real Samples.

IGNIVIUS utilizes a robust Direct Injection design that simplifies the sample flow path and minimizes the risk of clogging, contamination and carry-over.

Unlike conventional systems with Flow-through sample transfer, samples are transferred directly into the combustion zone. This approach improves particle handling, simplifies rinsing and enhances system reliability across a wide range of sample matrices.

Designed for routine operation in demanding laboratories, Direct Injection Technology provides reliable performance for both particulate-containing samples and low-volume applications.

Key benefits

- Excellent particle handling
- Reduced carry-over through efficient rinsing
- Suitable for small sample volumes
- Improved system reliability
- Lower maintenance requirements
- Increased laboratory uptime

High-Throughput NPOC Analysis

Parallel Processing. Maximum Productivity.

IGNIVIUS has been engineered to maximize laboratory productivity.

By performing NPOC pretreatment in parallel with sample measurement, the analyzer significantly increases throughput while maintaining reliable analytical performance.

While one sample is being analyzed, the next sample is already being acidified and sparged. This intelligent workflow minimizes idle time, increases analyzer utilization and enables laboratories to process more samples in less time.

Key benefits:

- Parallel NPOC pretreatment and analysis
- Increased sample throughput
- Reduced turnaround times
- Long unattended operation
- Maximum analyzer utilization
- Improved laboratory productivity

Unique Combination

IGNIVIUS uniquely combines Direct Injection Technology with Parallel NPOC Pretreatment.

While some analyzers offer Direct Injection and others offer parallel pretreatment, IGNIVIUS combines both technologies in a single platform.

The result is exceptional particle handling combined with high-throughput NPOC analysis.



Smart Sparging Technology

Confidence in Every NPOC Result

Reliable NPOC analysis depends on effective removal of inorganic carbon. Rather than assuming IC has been removed, IGNIVIUS verifies it.

Smart Sparging Technology automatically checks residual IC levels after pretreatment and dynamically adjusts sparging time whenever required.

This intelligent process helps ensure complete IC removal while delivering reliable, reproducible and fully documented NPOC results.

Key benefits

- Verification of IC removal
- Improved reproducibility
- Reduced operator dependency
- Automated optimization of sparging conditions
- Documented proof of pretreatment effectiveness
- Reliable NPOC measurements

Inline Dilution

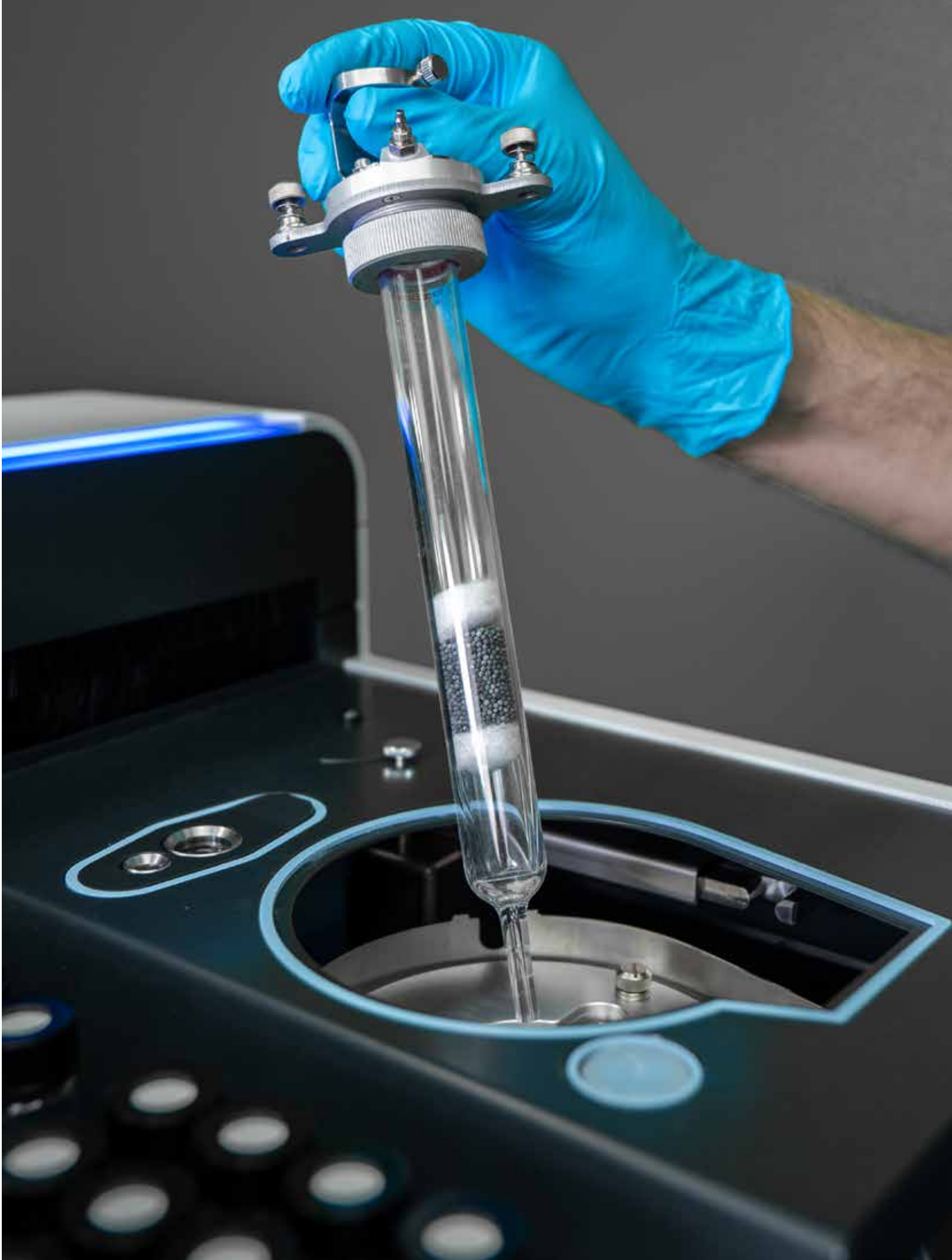
Integrated Inline Dilution performs dilutions during sample pickup, eliminating the need for dedicated dilution vessels within the sample rack.

Unlike conventional systems, valuable sample positions are not sacrificed for calibration or dilution procedures.

Calibrations can be prepared directly from a single stock standard while over-range samples can be diluted automatically, simplifying workflows and improving efficiency.

Key benefits

- No dedicated dilution positions required
- Maximum utilization of sample capacity
- Calibration from a single stock standard
- Automatic over-range dilution
- Reduced manual sample preparation
- Improved consistency and accuracy



Highest Sample Capacity in its Class

Designed for long unattended operation, IGNIVIUS offers the highest sample capacity currently available in a TOC analyzer.

With up to 170 positions for 8 ml vials, laboratories can maximize productivity while minimizing operator intervention.

Additional vial configurations provide flexibility for a wide range of applications:

- Up to 170 × 8 ml vials
- Up to 96 × 24 ml vials
- Up to 66 × 40 ml vials

Key benefits

- Highest sample capacity currently available
- Long unattended operation
- Reduced operator interaction
- Increased laboratory productivity
- Maximum daily sample throughput



Smart status. At a glance

The IGNIVIUS LED indicator does more than look good. It communicates the analyzer status instantly - so you always know what's happening.

BLUE

Ready to run/
Run in progress



GREEN

Results ready
for review



YELLOW

User attention required



RED

Run stopped/
User action required



Get in touch!



Visit our website

Additional information can be found on our website

www.skalar.com



Ask a Question

Contact us via E-mail and we will get back to you as soon as possible

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Call us

If you require direct assistance, don't hesitate to call us!

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Velaris reserves the right to change the specifications and the appearance of the equipment without further notification.

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