

# TOCnology made for you

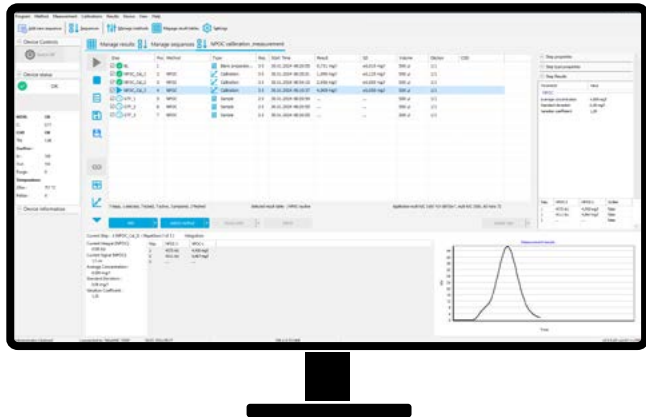
TOC/TN<sub>b</sub> analyzers of the multi N/C x300 series

TOC/TN<sub>b</sub> Analysis



# Designed for Maximum Ease of Use

Facilitate your workflows: With user-friendly TOC/TN<sub>b</sub> analyzers



## New intuitive software interface

multiWin pro provides you with a **cockpit view** by presenting all vital information on a single screen. It monitors key system parameters, presents live measurement results, and enables convenient operation thanks to its automated, user-friendly workflows. The software easily converts **TOC into COD/BOD<sub>5</sub> values** – no spreadsheet calculations necessary. An optional module enables audit trail and user management in **compliance with FDA 21 CFR Part 11** regulations.



## User-friendly design

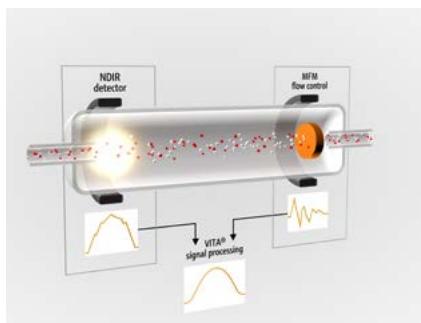
All consumables are easily accessible via the soft close front doors and displayed in a clearly structured way. The **Fast Connector Technique** allows for quick and easy replacement without any tools. No chemical drying agents have to be replaced as measurement gas is dried by means of a peltier element.

## Prepared for different matrices

- **Solids analysis:** A retrofittable solids module for combustion at up to 1800 °C. Samples up to 3 g are directly analyzed without prior wrapping. No hardware conversion is necessary.
- **Optional salt kit:** Prevents salt deposits and hence blockage of the combustion tube. Prolongs the lifetime of consumables and ensures accurate measurement results.
- **Nitrogen analysis:** Simultaneous measurement of TOC and TN<sub>b</sub> is possible with an integrated, highly economic ChD detector or a retrofittable CLD detector module.



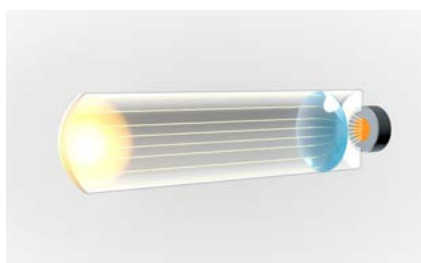
# TOCnology Inside



## VitaFlow management system

Sophisticated hardware and clever software algorithms ensure stable system gas flows and detect leaks by constant monitoring and instant compensation of carrier gas fluctuations. This is carried out several times per second with an integrated high performance gas box.

- Long-term stable calibration up to one year
- Multi-point calibrations from one standard solution
- Self Check System for gas tightness and instant leak detection
- Precise and stable measurement results



## Wide Range Focus Radiation NDIR detector

The detector consists of a corrosion-free glass cuvette. It is equipped with an electronically pulsed light source and integrated optics that focuses the energy-rich radiation onto a microdetector.

- Highest sensitivity and precision
- Wide measurement range of 0 to 30,000 mg/L TOC
- Longevity of the device



## Advanced injection techniques

### Direct injection for excellent particle handling

multi N/C 2300 works with a microliter syringe that allows for the precise dosing of smallest sample amounts from 10-500  $\mu$ L. It is emptied from top to bottom and transfers the entire sample, including all particles, to the furnace. Effective rinsing and thermal cleaning eliminates carry-over.

### Loop injection with reverse rinse

multi N/C 3300 draws the sample up into a large-diameter injection loop and transfers it completely into the furnace, including all particles. The injection system is then effectively rinsed - also by reverse rinse into the waste container of the autosampler.

## Digestion Techniques



**High temperature catalytic oxidation (HTCO):** 950 °C provide sufficient energy to break up stable C-C multi bonds. The entire sample including all particles is oxidized completely and enables simultaneous  $TN_b$  analysis. The combustion tube needs minimum filling volume of precious catalyst while showing high tolerance to saline matrices.



**High power long life UV reactor:** multi N/C 4300 UV is equipped with a UV reactor operating at two wavelengths of 254 and 185 nm. Due to its high energy UV radiation, no persulfate is necessary for complete sample oxidation. In this way, highest sensitivity and precision is achieved for low-level TOC applications.



# Meet the Family

More time for what matters: Our new TOC/TN<sub>b</sub> analyzers will facilitate your workflows while delivering results fit for any interlaboratory study. How? Unique TOCnology meets a new intuitive software. The robust and durable devices offer many time-saving automation functions and are customizable for your needs. Find the right TOCnology - made for you.



## multi N/C 2300 The Specialist

Discover the best particle handling and the most economic use of sample volume in the world of TOC/TN<sub>b</sub>!

- HTCO analyzer
- Direct injection from microliter syringe
- Best particle handling
- Detection limit of 50 µg/L C
- Run replicates with 1.8 mL of sample



## multi N/C 3300 The Allrounder

Experience high throughput and outstanding sensitivity for a great variety of TOC/TN<sub>b</sub> samples!

- HTCO analyzer
- Loop injection with reverse rinse
- Detection limit of 4 µg/L C
- Wide measurement range from 0-30,000 mg/L
- Various automation options
- Optional salt kit



## multi N/C 4300 UV The Trace Detector

Benefit from persulfate-free sample digestion and short measurement times for TOC analysis of ultrapure water.

- Wet-chemical UV digestion analyzer
- Detection limit of 1 µg/L C
- Highly economic operation
- Long term warranty on UV lamp
- Also suitable for highly acidic or alkaline samples



Discover TOCnology!

[www.analytik-jena.com/tocnology](http://www.analytik-jena.com/tocnology)



### Headquarters

Analytik Jena GmbH+Co. KG  
Konrad-Zuse-Str. 1  
07745 Jena · Germany

Phone +49 3641 77 70  
Fax +49 3641 77 9279  
info@analytik-jena.com  
www.analytik-jena.com

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Subjects to changes in design and scope of delivery as well as further technical development!