

The technology

Patented two-stage oxidation with hydroxyl radicals, ensures complete oxidation of the sample.

First TIC phase

- TIC stripped by adding acid.
- The resulting CO₂ is measured in the IR detector.
- Important: The TIC stripping is controlled by the CO₂ curve, which ensures that all of the TIC is stripped.

Second TOC oxidation

- TOC converted into carbonates and oxalates by adding ozone and lye.
- Carbonates and oxalates converted into CO₂ by re-adding acid.
- The resulting CO₂ is measured in the IR detector.

For every application



B7000i

- Industrial wastewater treatment plant influent and effluent
- Process water
- Product loss control
- Oil in water



B3500e

- Industrial wastewater treatment plant effluent
- Discharge control
- Storm/river water
- Ground/surface water



B3500c

- Condensate return
- Cooling water
- Boiler feed water
- Demineralised water
- Reverse osmosis water
- Carbon bed absorber



B3500ul

- Pharmaceuticals
- Power
- Electronics
- Ultra-pure water

Are you sure that...

- you can comply with operational effluent limits and statutory discharge limits?
- your TOC measurement has the very high uptime required to guarantee operational stability?
- you don't have to worry about downtime and maintenance costs?
- your TOC measurement is based on representative sampling?
- you have absolutely no concerns about your TOC measurement?
- Did you answer "no" to any of these questions?
- Then now is the time to learn more about **TOC measurement**.

Find out more

- in application notes from the chemical industry, paper industry, municipal wastewater treatment plants and dairy plants
- about our AnaShell analyser shelters
- about our own real time control (RTC) solutions

by requesting the documents from **info-uk@hach.com** for UK, or find your local Hach representative on hach.com.



The better alternative for TOC process monitoring



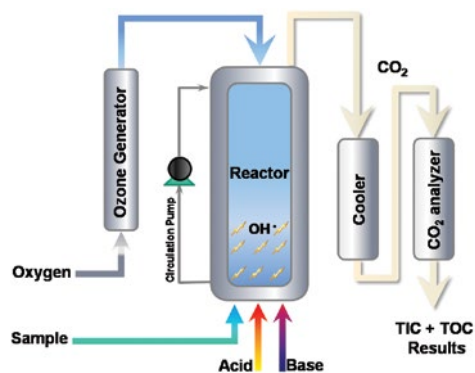
DOC163.52.30652.Sep20

BiTector

Your benefits

A solution that creates trust

- Reliably comply with legal requirements with the highest certified uptime of 99.86 % (according to M-Cert.) and ensure excellent operational reliability.
- Determine your TOC values with a complete representative sample with sample volumes of 10 - 12 mL including 2 mm soft particles. No pre-filtration required.
- Prevent continuous measurement value drift and calibrations between measurements with integrated automatic cleaning in the device.
- Save your operating personnel time with automatic cleaning in the device.
- Minimise your operating and maintenance costs with predictable cost control.
- Determine your TOC values with low energy costs.
- Give the BioTector a protective casing with our high-quality AnaShell analyser shelters.
- Control your TOC-dependent dosages in real time with our optional RTC solutions.



A method comparison that speaks for itself

	BioTector (TSAO) ¹	HT technology ²
Oxidation	Strong	Strong
Sample volume	10 - 12 mL	0.01 - 0.05 mL
Particle size	Soft particles up to 2 mm	Max. 0.5 mm
Salt concentrations	Up to 30 %, auto-matic cleaning	Up to 30 %, no automatic cleaning
Reactor deposits/contamination	No, automatic cleaning	Yes, combustion residues
Measured value drift/calibration required	No, automatic cleaning	Yes, combustion residues
Uptime	99.86 % certified according to M-Cert. Not available for 12 h/year	98 %, not certified Not available for 175 h/year
Maintenance requirements	Approx. 10 min/month	Approx. 120 min/month
Operation complexity	1 h training during commissioning	2 - 3 days of training required
Wearing parts	Half-year kit ensures full cost control	Weekly/monthly as needed
Occupational health and safety	Changing the canister of pre-packaged reagents	Temperatures up to 1200 °C
Energy costs	300 W	Approx. 1600 watts

¹ Two-stage oxidation

² High-temperature oxidation

Stay in control

Use Hach's expertise as your trusted partner

Take advantage of the entire programme that Hach® can offer. From our experts assessing on-site needs and selecting the appropriate TOC analyser; to support in commissioning and training from our wide-ranging service and support.

From start to finish, rely on our support when implementing your project

- Our TOC experts will help you to find the correct BioTector through customised consultation and configuration on site.
- Complete solutions such as turnkey analyser shelters (AnaShell) and Hach's own control modules (RTC) are also an option.
- Hach also supports planners and equipment suppliers by providing tender documents as partners.
- Individual training is available.