

APC 238

Total Nitrogen

MR 5 – 40 mg/L TN_b

DOC312.53.94335

Principle

Inorganically and organically bonded nitrogen is oxidized to nitrate by digestion with peroxodisulphate. The nitrate ions react with 2,6-dimethylphenol in a solution of sulphuric and phosphoric acid to form a nitrophenol.

Range of Application

Water, waste water

Interferences

T1
1000 mg/l: Cr ⁶⁺ / COD
2000 mg/l: Cl ⁻

The ions listed in T1 have been individually checked up to the given concentrations and do not cause interference. We have not determined cumulative effects and the influence of other ions.

Low-bias results are to be expected if the samples contain larger amounts of reducing agents. The measurement results must be subjected to plausibility checks (dilute and/or spike the sample).

Sample Volume	0,5 mL
Reagent A Volume	2,0 mL
Reagent D Volume	0,2 mL
Reagent A Filling	60 mL
Reagent D Filling	25 mL
Temperature Sample/sample cuvette	15 – 25°C
pH sample	3 – 12
Digestion Temperature/Time	110°C/1h

Method Library:

APC238 is pre-programmed in the method library. Please check under Settings/Software/Application/Methods **TNb** and Tests **APC238**.

Settings

General | Methods/Tests | QC/Blanks | Reagents trays | Colors | Remote messaging | Other parameters

Sample profiles | Methods | Tests | Other parameters

Methods definitions:

- Ammonium
- Chloride
- COD
- COD high
- Formaldehyde
- ISO-COD
- LCA722
- LCA722_Reagent
- LCK Ammonium
- Nitrate
- Nitrite
- Orthophosphate
- Phenol
- Phosphate
- Reagent Volume
- Sample Volume
- TNb**

Add Method

Delete Method

Reading 1 (Concentration):

Low-range test: APC138 Underrange: 1.000 Overrange: 16.000

Middle-range test: APC238 Underrange: 5.000 Overrange: 40.000

High range test: APC338 Underrange: 20.000 Overrange: 100.000

☐ Redo samples with underrange error if possible.

☐ Redo samples with overrange error if possible.

--> High-range cuvette overrange dilution factor: 2

☐ Use default samplevolume if sample is diluted for the test before using lower range test.

☐ Redo samples with other error (barcode/absorption error).

Method priority level: 8

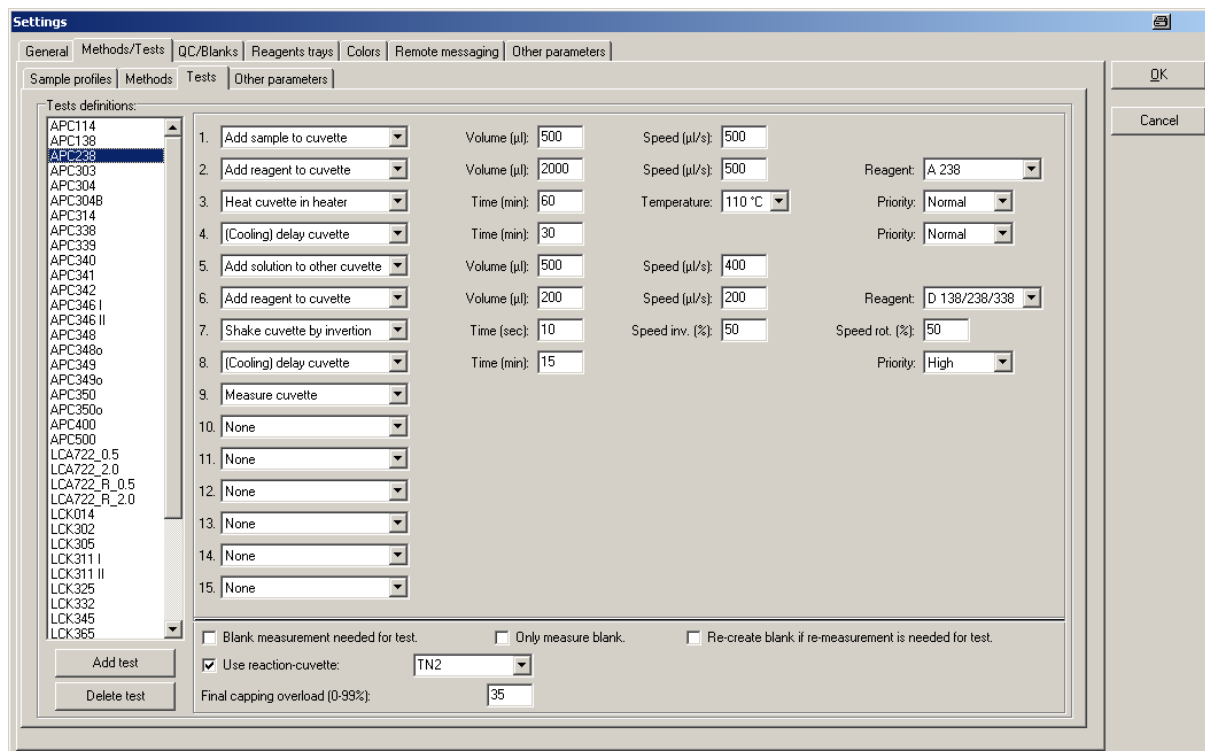
☒ Stir sample in samplecup by default.

☐ Always clean/flush needle after aspirating/dispensing sample.

Waiting time after start processing cuvet before starting processing next cuvet of test: 0 sec.

OK

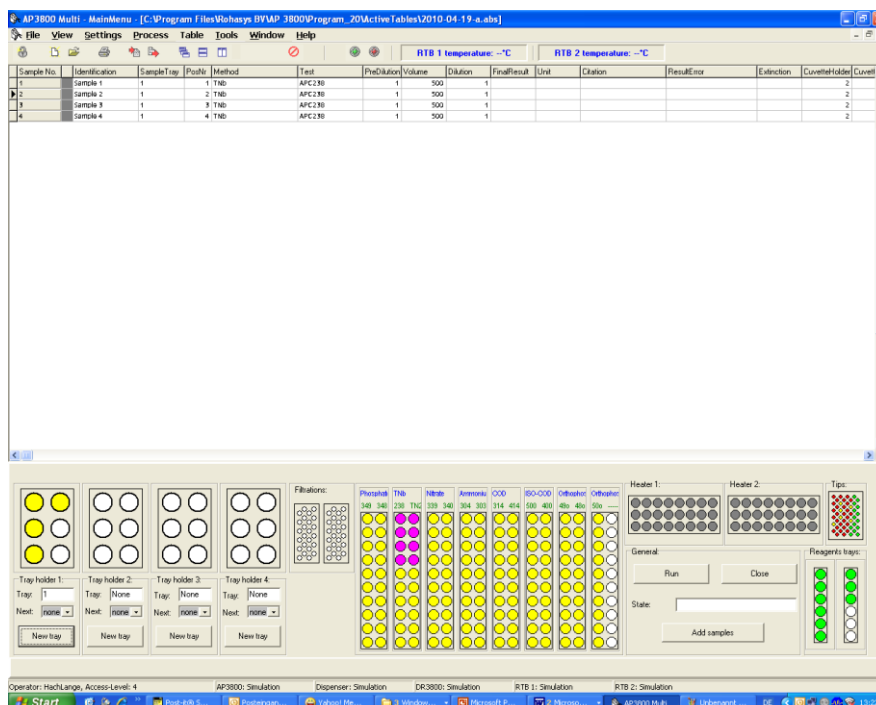
Cancel



Run the APC 238 total Nitrogen method

Create a Run like described in the QUICK GUIDE

- Place the APC238 digestion (TN2; APC938-25) and reaction cuvettes (APC238-25) according to the settings in the Software in the cuvette racks.



- Place the samples according to the settings in the Software in the sample racks
- Place the Reagent A and D according to the settings in the Reagent trays

Settings

General | Methods/Tests | QC/Blanks | **Reagents trays** | Colors

Reagents list:

- A 138
- A 238
- A 338
- B 348/349/350
- C 348/349/350
- A 339
- A 340
- D 138/238/338
- A 325

Add Delete

Tray 1 (Left):

	Name:	Volume:	Re-filled:
Position 1:	A 138	30.70	<input type="checkbox"/>
Position 2:	A 238	18.20	<input type="checkbox"/>
Position 3:	A 338	49.60	<input type="checkbox"/>
Position 4:	A 325	14.00	<input type="checkbox"/>
Position 5:	B 348/349/350	22.80	<input type="checkbox"/>
Position 6:	C 348/349/350	30.10	<input type="checkbox"/>

Tray 2 (Right):

	Name:	Volume:	Re-filled:
Position 1:	A 339	10.80	<input type="checkbox"/>
Position 2:	A 340	21.40	<input type="checkbox"/>
Position 3:	D 138/238/338	16.20	<input type="checkbox"/>
Position 4:	None	0.00	<input type="checkbox"/>
Position 5:	None	0.00	<input type="checkbox"/>
Position 6:	None	0.00	<input type="checkbox"/>

Other liquid level settings:

dZ Tray definition -> Max. Liquid level:

dZ 10th of mm -> ml.:

Volume in reagents cup:

Volume in filled reagents cup: ml.

Warning level reagents cup: ml.

OK Cancel

- Check if fresh and enough pipette tips are available
- Check if enough Rinsing/Dilution water is available
- Initialise the AP 3900 multi and the Dispenser



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