

APC303  
Ammonium-Nitrogen  
MR 2 - 47 mg/L NH<sub>4</sub>-N / 2,5 – 60,0 mg/L NH<sub>4</sub>

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DOC312.53.94336

### Principle

Ammonium ions react at pH 12,6 with hypochlorite ions and salicylate ions in the presence of sodium nitroprusside as a catalyst to form indophenol blue.

### Range of Application

Surface water, waste water, drinking water, swimming bath water

### Interferences

T1
1000 mg/l: Cl <sup>-</sup> , SO <sub>4</sub> <sup>2-</sup>
500 mg/l: K <sup>+</sup> , Na <sup>+</sup> , Ca <sup>2+</sup>
50 mg/l: CO <sub>3</sub> <sup>2-</sup> , NO <sub>3</sub> <sup>-</sup> , Fe <sup>3+</sup> , Cr <sup>3+</sup> , Cr <sup>6+</sup> , Zn <sup>2+</sup> , Cu <sup>2+</sup> , Co <sup>2+</sup> , Ni <sup>2+</sup> , Hg <sup>2+</sup>
25 mg/l: Fe <sup>2+</sup>
10 mg/l: Sr <sup>2+</sup>
5 mg/l: Pb <sup>2+</sup>
2 mg/l: Ag <sup>+</sup>

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.

Primary amines are also determined and cause high-bias results. A10000-fold excess of urea does not interfere. All reducing agents interfere and cause low-bias results.

A large excess of ammonium can cause result displays within the measuring range. It is advisable to carry out a plausibility check by making dilutions.

The measurement results must be subjected to plausibility checks (dilute and/or spike the sample).

<b>Sample Volume</b>	<b>0,2 mL</b>
<b>Temperature Sample/sample cuvette</b>	<b>20°C</b>
<b>pH sample</b>	<b>4 – 9</b>

## Method Library:

APC303 is pre-programmed in the method library. Please check under Settings/Software/Application/Methods **Ammonium** and Tests **APC303**.

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: APC304 Underrange: 0.015 Overage: 2.000

Middle-range test: None Underrange: 0.000 Overage: 0.000

High range test: APC303 Underrange: 2.000 Overage: 47.000

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/absorbion error).

Method priority level: 0

Stir sample in samplecup by default.  
 Always clean/flush needle after aspirating/dispersing sample.

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

OK  
Cancel

Settings

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

Sample profiles Methods Tests Other parameters

Tests definitions:

APC114  
APC138  
APC238  
APC303  
APC304  
APC314  
APC338  
APC339  
APC340  
APC341  
APC342  
APC346 I  
APC346 II  
APC348  
APC348o  
APC349  
APC349o  
APC350  
APC350o  
APC400  
APC500  
LCA722\_0.5  
LCA722\_2.0  
LCA722\_R\_0.5  
LCA722\_R\_2.0  
LCK014  
LCK302

Add test  
Delete test

1. Add sample to cuvette Volume (µl): 200 Speed (µl/s): 500

2. Rotate cap of cuvette

3. Shake cuvette vertical Time (sec): 5 Speed (%): 40

4. (Cooling) delay cuvette Time (min): 15 Priority: Normal

5. Measure cuvette

6. None

7. None

8. None

9. None

10. None

11. None

12. None

Blank measurement needed for test.  Only measure blank.  Re-create blank if re-measurement is needed for test.  
 Use reaction-cuvette.

Final capping overload (0-99%): 40

OK  
Cancel

## Run the APC303 Ammonium method

Create a Run like described in the QUICK GUIDE

- Place the APC303 cuvettes 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
- Check if enough Rinsing/Dilution water is available
- Initialize the AP 3900 multi and the Dispenser



HACH LANGE GMBH  
Willstätterstraße 11  
D-40549 Düsseldorf

Tel. +49 (0) 2 11 52 88-0  
Fax +49 (0) 2 11 52 88-143

info-de@hach.com  
www.hach.com