

# APC114 COD

## Chemical Oxygen Demand

### MR 150 – 1000 mg/L

DOC312.53.94333

#### Principle

Oxidizable substances react with sulphuric acid – potassium dichromate solution in the presence of silver sulphate as catalyst. Chloride is masked by mercury sulphate. The green coloration of  $\text{Cr}^{3+}$  is evaluated.

#### Range of Application

Waste water, process analysis, soils

#### Interferences

The method can be used for samples (or diluted samples) with chloride concentrations of up to 1500 mg/L.

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

#### Sample Volume

2 mL

#### Digestion Temperature/Time

148 °C/2h

#### Method Library:

APC114 COD is pre-programmed in the method library. Please check under Settings/Software/Application/Methods **COD High** and Tests **APC114**

**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: APC114 Underrange: 150.000 Overrange: 1000.00

Middle-range test: LCK514 Underrange: 100.000 Overrange: 2000.00

High range test: LCK014 Underrange: 1000.00 Overrange: 10000.0

☐ 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: 10

☒ 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

**Settings**

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

Sample profiles | Methods | Tests | Other parameters

Tests definitions:

1. Shake cuvette vertical	Time (sec): 10	Speed (%): 40
2. Add sample to cuvette	Volume (µl): 2000	Speed (µl/s): 500
3. Shake cuvette by inversion	Time (sec): 10	Speed inv. (%): 100
4. Heat cuvette in heater	Zeit (min): 120	Temperature: 148 °C
5. (Cooling) delay cuvette	Time (min): 5	Priority: Normal
6. Shake cuvette by inversion	Time (sec): 10	Speed inv. (%): 50
7. (Cooling) delay cuvette	Time (min): 30	Priority: Normal
8. Measure cuvette		
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%): 45

Add test  
 Delete test

OK Cancel

## Run the APC114 COD method

Create a Run like described in the QUICK GUIDE

- Place the APC114 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



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