

NR 1800

Date: 25-Feb-08

Application Data Sheet

Manganese

Matrix

Drinking water

Principle

The manganese is oxidized by periodate. The formed manganese dioxide is able to oxidize leucomalachite green. This results in a blue color. Because of the wide range the color is measured at an alternative wavelength (420 nm).

Detection method

Method:	Detector	Ion:	λ:
Mn2+ Colorimetry - VIS	Cuvette Module		420 nm

Specification

Range	Standard Dev.	Repeatability	Inaccuracy	Analysis time
Mn2+ 0 - 100 ug/l	0.14 ug/l or 3%	0.4 ug/l or 9%	0.4 ug/l or 9%	18 minutes

(If 2 options : whichever is larger)

Interferences

Reagents

- NaIO4-solution 1 ml per analysis
- Leucomalachite / acid 0.5 ml per analysis
- Sodium Acetate-solution 1 ml per analysis

Procedure

- Rinse the cuvette with sample
- Take 10 ml sample
- Add oxidation reagent
- Wait for 180 sec
- Add color/acid reagent
- Wait for 180 sec
- Measure initial color
- Add buffer reagent
- Measure final color
- Calculate result

Remarks

Use cuvette with led source 430 nm and filter 420 nm
After a break of 3 hours or more false results are expected in the first five analyses.

Possible Analyzer

- 2040
- 2016
- 2018 HD
- 2019 HD
- 2019 Special
- 2019 Digest
- 2003 Alert
- 2004 Alert

Typical Wet Part layout

