LCK330 Molybdenum

DOC312.53.94048

Method

3–300 mg/L Mo **LCK330**

Scope and application: For raw and ground water, drinking water, boiler water and process analysis.

Test preparation

Test storage

Storage temperature: 2–8 °C (35–46 °F)

pH/Temperature

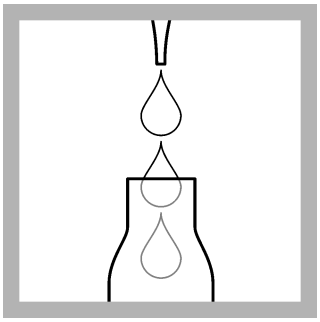
The pH of the water sample must be between pH 4–9.

The temperature of the water sample and reagents must be 22 °C (72 °F).

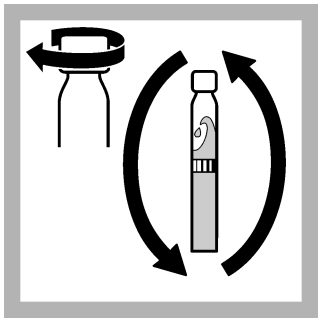
Before starting

The sample should be colorless and free of turbidities. Slight colorations can be taken into account with the help of a sample specific blank reading. Refer to Procedure "Specific blank with colored sample" on page 2.
If such coloration is due to organic impurities, these can be eliminated by digesting the sample with the Crack Set (LCW902).
Turbidities are eliminated by filtration through a membrane filter (LCW904).
In case of not working at the right recommended temperature an incorrect result may be obtained.
Review safety information and expiration date on the package.
Review the Safety Data Sheets (MSDS/SDS) for the chemicals that are used. Use the recommended personal protective equipment.
Dispose of reacted solutions according to local, state and federal regulations. Refer to the Safety Data Sheets for disposal information for unused reagents. Refer to the environmental, health and safety staff for your facility and/or local regulatory agencies for further disposal information.

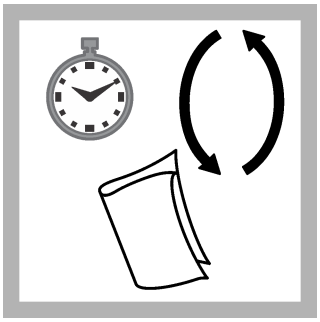
Procedure



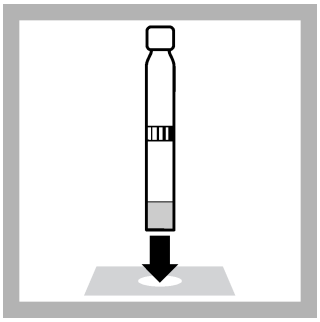
1. Carefully pipet **0.4 mL** of **sample**.



2. Close the cuvette and invert a few times.



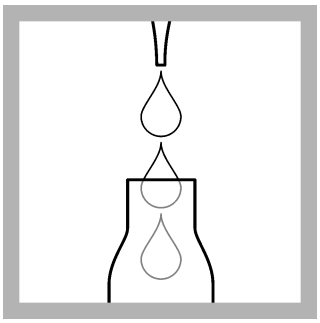
3. After **10 minutes**, invert a few more times, thoroughly clean the outside of the cuvette and evaluate.



4. Insert the cuvette into the cell holder.
DR1900: Go to LCK/TNTplus methods.
Select the test, push **READ**.

Procedure "Specific blank with colored sample"

If the sample is colored the blank-value must be measured and subtracted from the value obtained in the analysis. Observe the measuring range limits.



1. Prepare the blank: Pipet into a blank-value cuvette (LCW919): **2.0 mL distilled water** and **0.4 mL sample**.

Interferences

The ions listed in the table have been individually checked against the given concentrations and do not cause interference. The cumulative effects and the influence of other ions have not been determined.

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

Interference level	Interfering substance
1000 mg/L	Na^+, K^+, SO_4^{2-}, Ca^{2+}, Mg^{2+}
500 mg/L	NO_3^-
200 mg/L	Cl^-
100 mg/L	PO_4^{3-}
50 mg/L	Fe^{2+}, Mn^{2+}
10 mg/L	Fe^{3+}
1 mg/L	NO_2^-, Cu^{2+}

Summary of method

Molybdate ions react with thioglycolic acid to form a yellow colored complex, which is evaluated photometrically.

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