

Special instruction

Removal of molybdenum interferences in iron tests

Iron is an important parameter in the area of boiler and feed water. Excessively high concentrations can have a damaging effect on the boiler. Iron compounds can form poorly soluble deposits through oxidation, for example. Additives containing molybdenum are often used as corrosion protection. However, molybdenum leads to minor findings in VISOCOLOR® and NANOCOLOR® iron tests. Samples containing molybdenum must therefore be pretreated in order to determine the iron content correctly.

Instructions	
Parameter	Iron
Product group	NANOCOLOR® und VISOCOLOR®
Method	Pretreatment of a water sample for the removal of interferences of molybdenum
Measuring range	Depends on used test kit
Reagents and equipment	NANOCOLOR® Iron 3 (REF 985037) or NANOCOLOR® Iron LR (REF 918128) or VISOCOLOR® ECO Iron 2 (REF 931026) or VISOCOLOR® HE Iron (REF 920040) or VISOCOLOR® Powder Pillows Iron (REF 936227) Digital piston pipette 1–5 mL (REF 916909) with pipette tips (REF 916916) Measuring spoon black (REF 914663) or orange (REF 914664) Sodium metabisulfite or Hydroxylammonium chloride depending on the test (see test specific procedure) Reaction tube 16 mm OD (REF 91680) or beaker (only for test 985037)
Procedure REF 985037 NANOCOLOR® Iron 3	Add 5 mL sample to a reaction vessel (beaker or reaction tube) Add 1 measuring spoon Sodium metabisulfite Mix Perform test according to instructions with 4 mL of this pretreated sample
Procedure REF 918128 NANOCOLOR® Iron LR	Add 20 mL sample to a 25 mL measuring flask Add 4 measuring spoon Sodium metabisulfite Mix Perform test according to instructions Measure after exactly 10 minutes
Procedure REF 931026 VISOCOLOR® ECO Iron 2	Pour a 5 mL water sample into each of the measuring glasses Add 1 measuring spoon Sodium metabisulfite to measuring glass B Mix Perform test according to instructions Measure after exactly 5 minutes
Procedure REF 920040 VISOCOLOR® HE Iron	Rinse both round glasses with the water sample and fill them to the mark with the water sample Add 1 measuring spoon of sodium disulfite to the right measuring glass Mix Continue with the test as described in the instructions
Procedure REF 936227 VISOCOLOR® Powder Pillows Iron	Add 5 mL sample to a reaction tube Add 1 measuring spoon Hydroxylammonium chloride Mix Perform test according to instructions
Tolerated molybdenum interference	NANOCOLOR® Iron 3 (REF 985037) 500 mg/L Mo NANOCOLOR® Iron LR (REF 918128) 200 mg/L Mo

VISOCOLOR® ECO Iron 2 (REF 931026)	500 mg/L Mo
VISOCOLOR® HE Iron (REF 920040)	300 mg/L Mo
VISOCOLOR® Powder Pillows Iron (REF 936227)	100 mg/L Mo

¹⁾ The tolerated interference of molybdenum was investigated up to the indicated concentrations in each test. An exact upper limit was not determined.

Contact

If you have further questions, please do not hesitate to contact us:

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