Error Sources During Analysis

Pipetting error (incorrect volume)

Check pipette volume with pipette checking set LCA 722

Sample clearly coloured

Measure sample specific blank value (SBV)

- If the SBV is within the measuring range: subtract the SBV from the analysis result
- If the SBV is less than the lower measurement range limit: the intrinsic colour of the sample has no influence on the result

Solution in the cuvette is noticeably turbid

- Digestion and measurement
- Filter using membrane filtration set (LCW 904 or LCW 916) and repeat the measurement

Influence of interfering ions; reaction time/reaction temperature not being adhered to

Observe analysis instruction (reaction conditions) precisely and repeat analysis if necessary

Concentration above or below the measuring range

- Perform dilution or spiking, with Addista, plausibility check and compare the result with the original result
- Perform dilutions for plausibility check or set up test with a higher or lower measuring range if necessary

Contaminated cuvette

Clean the cuvette



Important Information

Filtration: May only be performed for parameters that are generally completely dissolved: e.g. NO_2-N, NO_3-N, NH_4-N etc.
Recommendation: membrane filtration set LCW 904 (1.2 µm) or LCW 916 (0.45 µm).

Digestion: Perform for all metal determinations with the LCW 902 Crack Set.

SBV: Sample specific blank value must be performed for samples with strong intrinsic colouring (see document, Sample Specific Blank Value, DOC042.52.00280).

An important basic pre-requisite for high result reliability is regular checking of the **entire** analysis system: pipettes, photometer, reagents and general handling. This check is made considerably easier by the AQA system Addista.

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