

DETERMINATION OF HEAVY METALS AND SOME ANIONS IN WATERS. DETERMINATION OF ACIDS AND BASES, DISSOLVED OXYGEN IN AQUATIC SOLUTIONS. DETERMINATION OF IODIDES AND VITAMIN C IN FOODS AND BEVERAGES.

Measurement principle

PCA uses the principle of flow-through electrochemistry, coulometry and in-electrode coulometric titrations. The measurement is automatic and is controlled by a microprocessor.

Samples and sample preparation

- *Water samples (process-, tap-, surface-, underground- and waste water):* Simple sample pre-treatment, just mix the sample with the reagent solution and inject.
- *Beverages and fruit- and vegetable-juice for determination of ascorbic acid or iodine:* Filter
- *Foods and food additives for determination of ascorbic acid or iodine:* To solve or leach and filter.

Determined species

Heavy metals in waters (Ni, Cu, Cr(VI), Pb, As...)

Nitrates, phosphates, chlorides, ... in waters

Acids

Bases

Chlorides in waters

Dissolved **oxygen** in waters

Ascorbic acid in beverages, food, food additives, fruit and vegetable

Iodide in enriched beverages, food and food additives
... and others

Determination limits below 1 mg/l.

Analysis

PCA is a portable instrument rechargeable battery operated. This enables simple and quick analyses in the field or in the laboratory.

The sample is aspirated into the disposable syringe containing the reagent solution and on mixing the content is injected into the measuring cell. The calibration is carried out in a similar way.

The result is then shown on the graphical display and stored in the memory. Up to 20 results can be stored and then they can be transferred to a PC.



REPEAT: YES CANCEL: NO

Communication with PC

The instrument communicates with any common personal computer by making use of the delivered PCA-software through the serial interface. The PC can be used for:

- Input of a new parameter set into the PCA (there is only one analytical method in the memory of the PCA at the time.)
- adjustment of time and date
- transfer of measured results from PCA into the computer

Advantages

- Portable instrument for fast analyses in the field and the laboratory
- Broad linear concentration range
- Simple handling, sample-preparation and dosing
- No problems with coloured solutions
- Communication with PC enables download of software for determination of different species
- Communication with PC enables simple data transfer
- Advantageous price and low running costs



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1.001 mg/l

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