



COBAS FARA //

**FOR
ENVIRONMENTAL TESTING
FOOD CHEMISTRY
TOXICOLOGY**





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In the last few years the need for food analysis for researching the nature, composition and the quality of food items has increased substantially. As a result, the development of the so called fast methods for food analysis has gained considerable importance. Much progress has been achieved particularly in the area of chromatographic methods of analysis. Although photometric methods are widespread in food testing little progress has been made towards a faster and above all automatic measuring process until now. Centrifugal analyzers and specifically COBAS FARA II are the exception in this area.

With the COBAS FARA II, photometric analysis in food testing is significantly improved in terms of automation and time savings. Enzymetesting (an expanding area of testing in food laboratories) requires, most of all, the automation and highly accurate quantification provided by the COBAS FARA II system.

Reduction of the time needed is due to, first of all, the automatic pipetting system of COBAS FARA which besides addition of reagents performs predilution of the samples. Further substantial time savings result from

the ability to test up to 29 samples simultaneously with a constant temperature throughout the enzymatic reaction. The fully automatic COBAS FARA II allows several analyses to be carried out on different samples without the need of any readjustment or further manual operations. In the case of a large number of samples it is only necessary to change the cuvette rotor. Automatic analysis can be performed test or sample specifically. Additional cost savings are made thanks to low sample and reagent volumes needed by the highly accurate longitudinal measuring principle of COBAS FARA II.

The described advantages of COBAS FARA II can be shown by a practical example. Whilst carrying out six enzyme tests (glucose, fructose, sucrose, malic acid, citric acid and sorbitol) on twenty fruit juice samples (apple and orange juice mixed as desired) the following savings were achieved versus the mixed conventional way of testing.

- Reduction of reagents by 90%
- Reduction of time needed for the measuring cycles by approximately 55%
- Reduction of the time needed for the dosing of reagents by over 50%

In absolute terms the time from start to finish was shortened from 7.5 hours to 3.5 hours. Labour was reduced from 5 hours to 1 hour.

COBAS FARA II has 5 measurement modes in addition to the photometric mode allowing true flexibility in programming further tests.

COBAS FARA II is therefore well suited for analytical work within the food chemistry laboratory environment.

Adaptations Available:

D-Malic acid

L-Malic acid

L-Ascorbic acid

L-Asparagine

L-Aspartic acid

Citric acid

Acetic acid

Ethanol

D-Fructose

D-Galactose

Lactose

Sucrose

D-Glucose

D-Isocitric acid

D-Lactic acid

L-Lactic acid

Nitrate

D-Sorbitol (colorimetric method)

D-Sorbitol (UV-method)