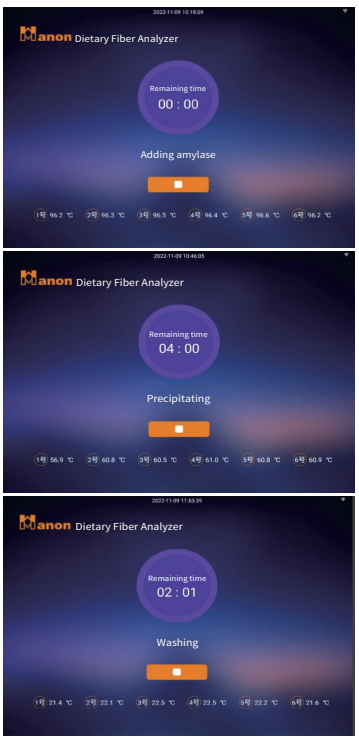
DF06
Dietary Fiber Analyzer

In recent years, with increasing attention to dietary health, more and more people have become aware of the importance of dietary fiber. According to the "Chinese Dietary Guidelines," the daily intake of dietary fiber should be 25-30g. When purchasing products, consumers can also pay attention to labels such as "increased dietary fiber." However, traditional dietary fiber detection experiments are complex in operation, time-consuming, and have low testing efficiency. An automatic dietary fiber analyzer can complete processes such as enzymatic hydrolysis, sedimentation, and washing with a single button press, replacing the cumbersome manual operations and effectively improving experimental efficiency. The DF06 Dietary Fiber Analyzer is mainly used for the detection of total dietary fiber, soluble dietary fiber, and insoluble dietary fiber in food.

Main Features and Advantages

High-efficiency automation

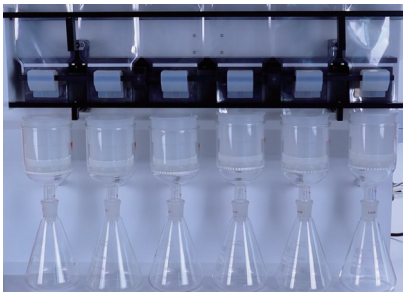
• The instrument integrates multiple functions such as automatic liquid addition, heating, stirring, sedimentation, and filtration into one device. By replacing repetitive manual operations with automated processes, it effectively reduces labor costs.
• During the enzymatic hydrolysis process, the instrument automatically controls the sealing and opening of the reaction bag. This eliminates manual operation and effectively prevents the evaporation of reagents under high-temperature conditions.
• The instrument uses a straight-through flexible reaction bag. Compared to traditional methods, the sample is automatically transferred to the filtration section after sedimentation is complete, eliminating the need for manual sample transfer.



Accurate and Reliable

• The instrument is equipped with an internal automatic pipeline cleaning function, which can prevent pipeline blockages caused by the deterioration of enzyme solutions and improve the precision of liquid addition.
• Since experimental temperature directly affects enzyme activity, the instrument continuously controls and monitors the temperature of each channel during the experiment, enhancing the temperature control accuracy to within ±1℃, ensuring the accuracy of the experiment.
• The non-contact stirring method promotes efficient mixing of the sample and enzyme solution while preventing direct contact between the stirrer and the sample, effectively avoiding sample loss.
• The use of filter membranes instead of traditional crucibles allows the membranes to undergo digestion and ashing directly with the sample, avoiding errors caused by sample transfer and residue in traditional methods.

Convenient and User-friendly



• The instrument features an ergonomic lift-arm operation platform, which can be adjusted to a comfortable position according to individual preferences, making the operation process more convenient and user-friendly.
• The instrument is equipped with a built-in method library, allowing users to retrieve preset protocols with a single button press and automatically complete the experimental process, thereby improving work efficiency.
• The six channels can be independently controlled, allowing users to choose the number of channels based on the sample quantity, offering greater flexibility in use.
• The instrument uses a negative-pressure filtration method, eliminating the need for back-blowing or external gas sources, making the filtration process more convenient.

Safety and Compliance

• The instrument complies with the regulations of FDA 21 CFR Part 11. It uses a three-tier username and password login system, ensuring that instrument operations are traceable. This enhances the authenticity and security of the experimental data generated by the instrument.

Relevant Standards

- GB 5009.88 National Food Safety Standard - Determination of Dietary Fiber in Foods
- GB/T 22224-2008 Determination of Dietary Fiber in Foods - Enzymatic-Gravimetric Method and Enzymatic-Gravimetric Method - Liquid Chromatography (Alternative Method)
- AOAC 985.29 Total Dietary Fiber in Foods
- AOAC 991.43 Total, Soluble, and Insoluble Dietary Fiber in Foods

Technical Specifications

Sample Weight	0 . 2 - 1g
Measurement Range	0 - 100%
Standard Deviation	⩽1%
Temperature Control Accuracy	±1℃
Batch Processing Capacity	6
Testing Time	For TDF, it takes 3.5 hours, while for a single IDF or SDF measurement, the time is 1–3 hours (depending on the type of sample).
Filtration Method	Negative pressure filtration, without the need for back-blowing.
Power Supply	AC 220±10 V（50±1）Hz
Rated Power	1300 W
Dimensions (Length × Width × Height)	800 mm× 350 mm× 650 mm
Net Weight	60 kg

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