Technology Offer

Cost-efficient Disposable Filtration Microtiter Plates for High Throughput Applications

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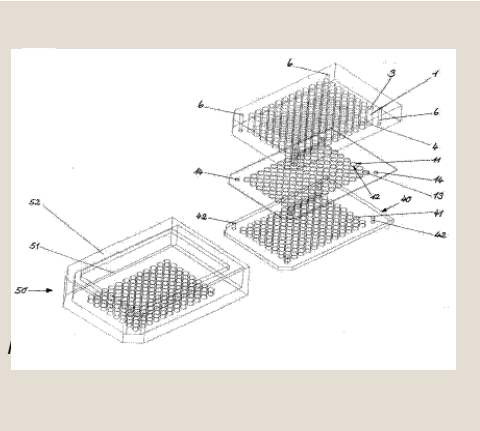
ascenion

A Company of the Life-Science Foundation for the Promotion of Science and Research

Challenge

Flow cytometry, particle analysis and fluid imaging are methods increasingly used in medical and plant research as well as for water analysis and other quality control applications. To obtain reliable results it is necessary to prepare the samples adequately, e.g. by filtration. To date disposable filtration tubes suitable for the one-time filtration of single samples are on the market for this purpose. For high-throughput applications these filter systems are inadequate, because their use is very time consuming and costly. So far no microtiter-format filtration system suitable for the sample preparation for flow cytometric or related analytical methods is available.



The Technology

The invention discloses a new microtiter-format filter plate that can be combined with membranes of different pore sizes. For reasons of pricing the system is kept as simple as possible and is based upon passive filtering. As such the pore size of the filter membrane is limited to a size through which liquid can flow through by passive flow or only supported by centrifugation, e.g. to mesh sizes of approx. 20 µm or greater. No vacuum is necessary. To our knowledge this is the first filtration device for multiple sample preparation for flow cytometry and related methods.

Commercial Opportunity

Flow cytometry and related technologies have become standard methods often used in high-throughput settings in research and quality control applications. We offer the first suitable filtration system for sample preparation for these methods adequate for high-throughput applications.

Advantages of the offered microtiter filtration plate are

- Easy and inexpensive production, e.g. by injection moulding process
- Disposable device
- Simple handling
- Variable pore size of the membrane
- Very fast sample preparation
- Compatible with instruments from different manufacturers

Patent Situation

A German utility model was registered in April 2007 (20 2007 005 989.2). An international patent application was filed in April 2008 (PCT/EP2008/054979).

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