

ABSTRACT

Centrifugal Filter

Filtration device suited for concentration of liquid samples, particularly biomolecules, and a method of concentrating, desalting, purifying and/or fractionating liquid samples. In certain embodiments the device includes a housing having a sample reservoir, and two substantially vertically oriented and spaced apart membranes disposed in the housing. An underdrain is associated with each membrane such that fluid passing through each membrane flows through a respective underdrain into a filtrate collection chamber. The fluid that does not pass through the membrane is collected in the retentate collection chamber, and can be recovered such as by a reverse spinning step, achieving recoveries greater than about 90%. The substantially vertical orientation of the membranes increases the available membrane area by at least 2.7 times the area available in a conventional filter device. The two-panel configuration also maintains more available membrane area in use during the last stage of filtration than a one-panel configuration.

Fig. 1