

Ultrafiltration and Nanofiltration

Overview:

UF and NF are processes that are used to remove any number of constituents from liquids. Selectivity of the membrane can be tailored to specific applications ranging from milk filtration to water softening. UF and NF processes are common in water treatment, food and beverage processing, and pretreatment for more sensitive separations processes.

UF and NF are offered in both benchtop and pilot-scale sizes in the Fraunhofer lab.

Description of the test bed:

- The benchtop test bed is currently set up for testing single channel tubular membranes with a length of 500 mm, an outer diameter of 10 mm and an inner diameter of 7 mm
- System is adaptable to other membrane geometries
- **Working pressure:** up to 600 psi
- **Working temperature:** max. of 60 °C
- **Liquids:** Aqueous solutions, organic solvents, oils
- **Analysis system:** conductivity meter

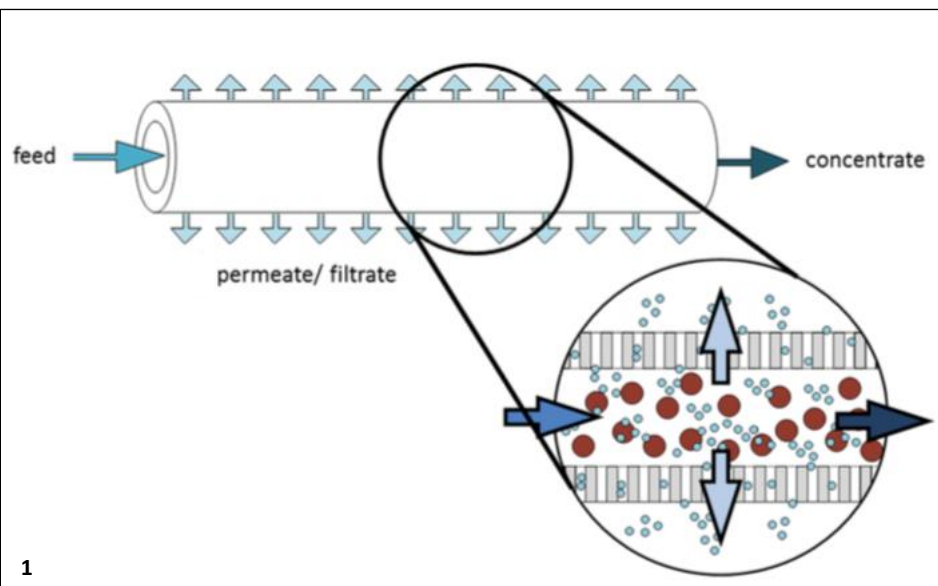
Services offered:

- Application testing for membrane processes
- Membrane characterization
- Development of membranes
- Delivery of membrane prototypes
- Assembly of bench-scale and pilot-scale plants



1 Separation of a liquid feed mixture through a membrane in single channel geometry (schematically).

2 Nanofiltration test rig CEI laboratory which is actually equipped with a module for single channel substrates.



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