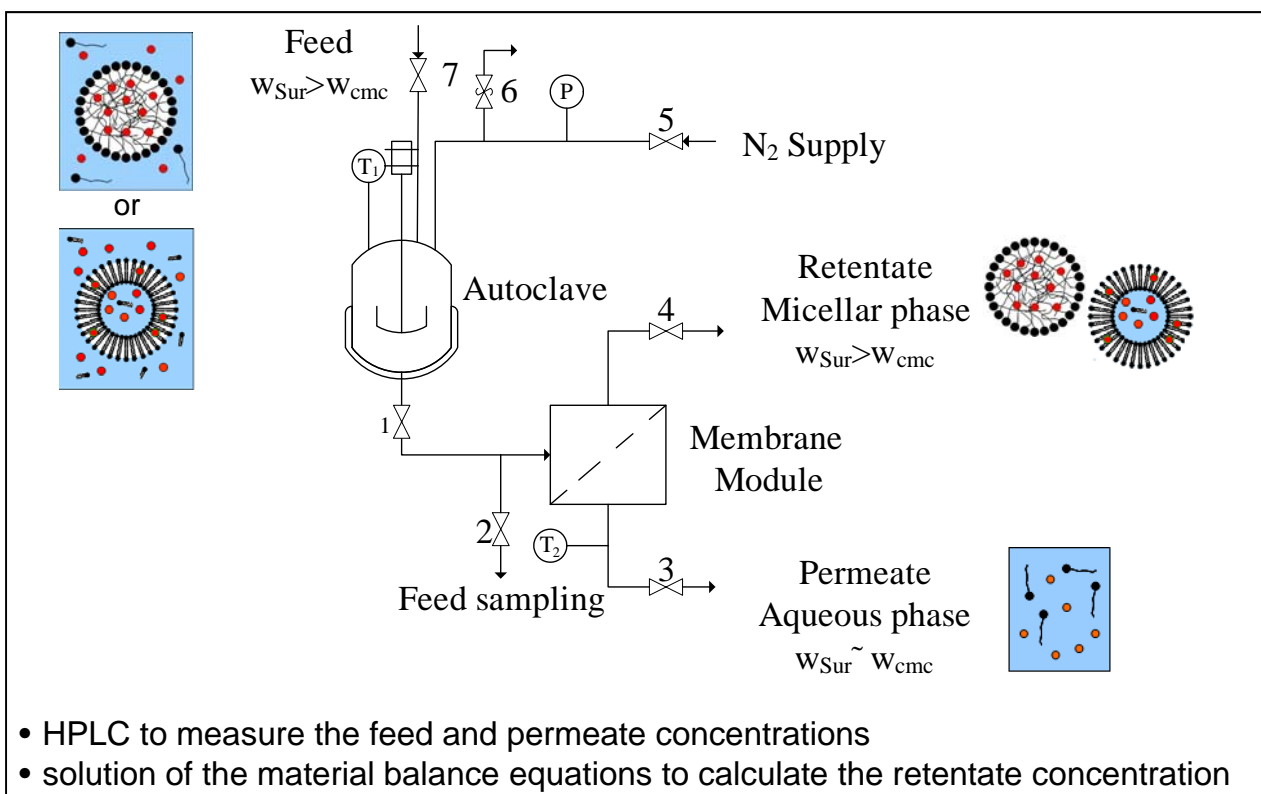
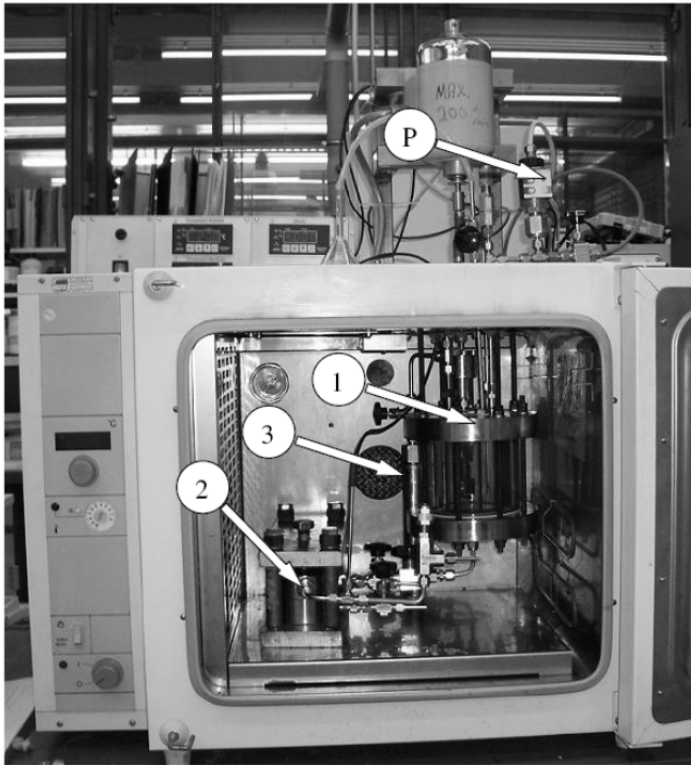


## Measurements of micelle-water partition coefficients

In our laboratory, micelle-water partition coefficients,  $K^{MW}$ , are determined by ultrafiltration and solubilization methods. Ultrafiltration (also known as molecular filtration) is a membrane separation technique used to separate substances according to their molecular weight and size. Ultrafiltration separates particles or molecules in the diameter range of 5-500 nm mainly by size exclusion phenomena and is capable for concentrating bacteria, proteins, dyes, and constituents of molecular weight greater than 10,000 Daltons. This technique has been effectively used as a method for the separation of micelles from the aqueous solution, in the removal of toxic pollutants from the industrial wastewater. In our group, it is used to determine  $K^{MW}$ -values of model and pharmaceutically active compounds.

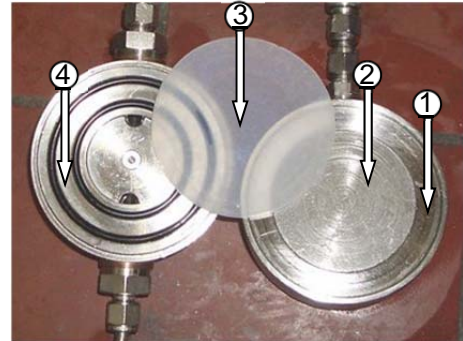
The flowsheet of the experimental setup and the pictures of the corresponding apparatus are shown below. The whole experimental setup is kept inside the air-circulating oven to conduct the experiments at different constant temperatures.





Experimental setup

1: Autoclave; 2: Membrane module; 3: Saturation tank;  
P: Pressure sensor



Single circular module

1: Bottom cell; 2: Porous support  
plate; 3: Membrane; 4: Top cell