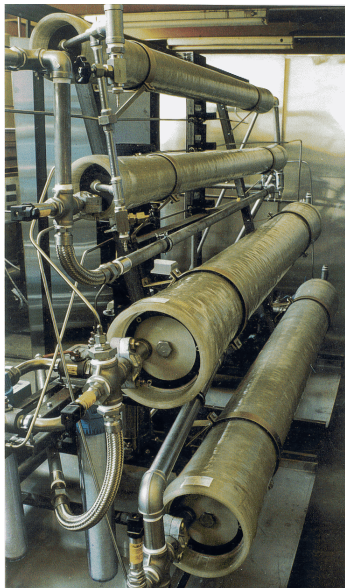


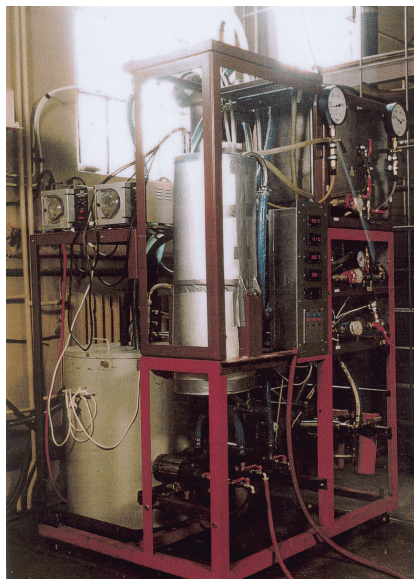
Membrane methods for the protection of Environment

Various problems in the field of environment protection and conservation can be solved by membrane processes. Such processes as microfiltration (MF), ultrafiltration (UF), reverse osmosis (RO) or pervaporation (PV) can be used in different fields of environment protection since they proved their reliability and economics in many applications. Membrane processes have been investigated in INCT for radioactive waste treatment and separation of isotopes, but they also found other applications in industry and environmental control technologies.

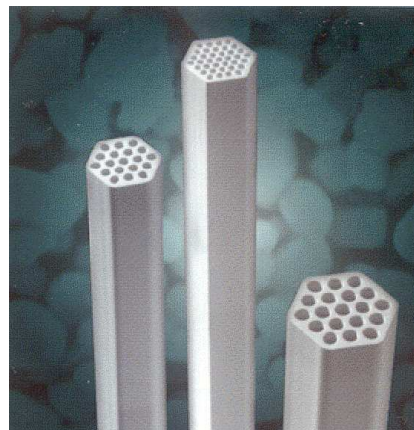
Development of membrane technology for a processing of radioactive wastes



Reverse osmosis



Membrane distillation



Ultrafiltration/Complexation



3-stage reverse osmosis plant for processing of liquid radioactive wastes

The application of MD systems:

- liquid radioactive waste purification
- boiler feed water for power plants

The processes developed in INCT were applied in number of fields of industry and technology:

- recovery of sorbent in the process of flue gas treatment (Cuprum, Legnica)
- water purification for electroplating plant,
- concentration of fruit juices (Hortex, Pludy)
- feasibility study for the purification of radioactive wastes from laundry washing contaminated clothes
- purification of liquid radioactive wastes (IAE, Swierk).