

ABSTRACT

METHOD FOR REDUCING PERFORMANCE VARIABILITY OF MULTI-LAYER FILTERS

Multi-layer membrane devices with reduced performance variability, and method of reducing performance variability of such devices. The variability is reduced by combining two or more membranes with similar pore sizes, and carefully selecting the upstream membrane based upon its performance rating, in order to control the performance of the overall device. Selective layering reduces the capacity range of the device when compared to random layering, with the mean capacity greater than overall population mean. The flux range also can be reduced, with the mean near the overall population mean. The LRV range also can be reduced, with the mean LRV near or higher than the overall population mean.

Fig. 1