

29a Design of Hollow Fiber Membrane Modules

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The similarities of hollow fiber membrane modules to shell and tube heat exchangers have led to the adoption of similar design strategies. While many similarities exist, the performance of a module may be limited by the differences. These differences arise primarily from the non-uniformity that exists in fluid flow channels and fiber transport properties. Additionally, fluid distribution from both the lumen and shell headers can affect performance. Experimental and theoretical studies of how performance depends on these factors are summarized.