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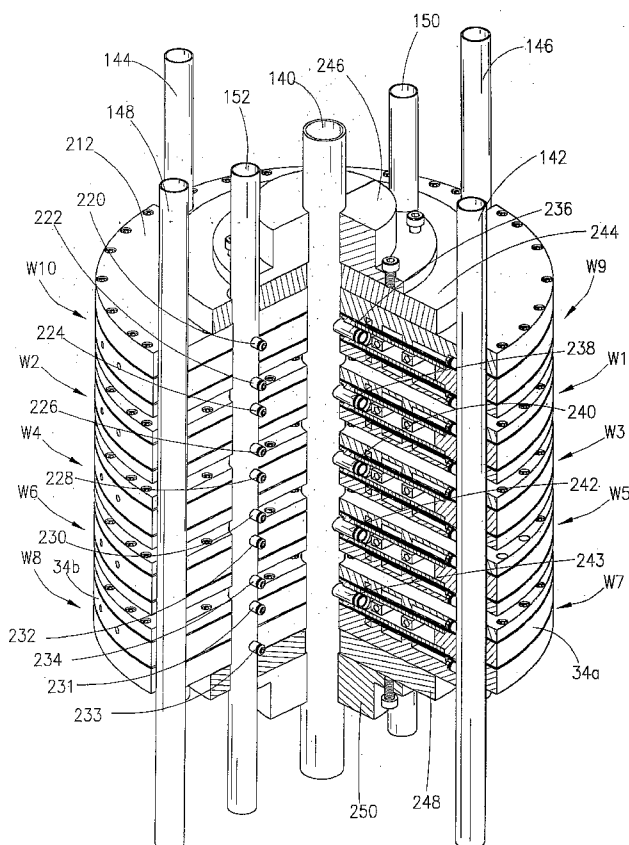
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(54) Title: POLYMERIC MEMBRANE PLATE AND FRAME ASSEMBLY AND METHOD OF ITS APPLICATION



(57) Abstract: A method for separating aromatic hydrocarbons from a feed stream. The method includes flowing the feed stream through a first channel within a first wafer assembly that may contain an underflow distribution weir. Next, the feed stream is exposed to a first thin film polymer membrane. A stream permeates through the first thin film polymer membrane, and the permeate is produced from the first wafer assembly. The retentate is directed via a redistribution tube to a second wafer assembly that may contain an underflow distribution weir. This retentate is exposed to a second thin film polymer membrane. A second permeate stream is created that permeates through the second thin film polymer membrane. The second permeate stream is flown into the permeate zone and ultimately produced from the second wafer assembly. An apparatus for separating aromatic components from a feed stream is also disclosed. In the preferred embodiment, the apparatus includes a series of tandem wafer assemblies. The wafer assemblies comprise a first wafer, second wafer and third wafer. First and second membrane members are disposed within the wafer. A permeate side conduit system for heating fluid is provided.



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