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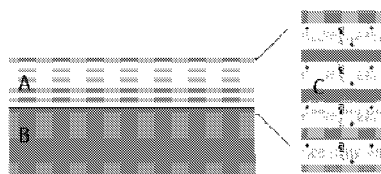
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(54) Title: SELF-ASSEMBLED SURFACTANT STRUCTURES



FIG. 5



(57) Abstract: Stabilized surfactant-based membranes and methods of manufacture thereof. Membranes comprising a stabilized surfactant mesostructure on a porous support may be used for various separations, including reverse osmosis and forward osmosis. The membranes are stabilized after evaporation of solvents; in some embodiments no removal of the surfactant is required. The surfactant solution may or may not comprise a hydrophilic compound such as an acid or base. The surface of the porous support is preferably modified prior to formation of the stabilized surfactant mesostructure. The membrane is sufficiently stable to be utilized in commercial separations devices such as spiral wound modules.