

FEED DIFFUSING SYSTEM AND METHOD FOR REDUCING MEMBRANE FOULING

ABSTRACT

5 A feed diffusing system (10, 20, 30, 40, 50, 70, 80) for reducing membrane fouling in a membrane module (100, 200, 300, 400, 500) disposed in an environment. The system (10, 20, 30, 40, 50, 70, 80) has a feed inlet (11, 22, 32, 72, 82) for receiving a feed mixture. One or more feed outlets (12, 14, 26, 36, 38, 42, 44, 52, 54, 73-76, 83-86) is configured to be in fluid communication with the feed inlet (11, 22, 32, 72, 82) and for diffusing the feed mixture to a
10 membrane disposed in an environment. The one or more feed outlets (12, 14, 26, 36, 38, 42, 44, 52, 54, 73-76, 83-86) are arranged adjacent to a membrane in a membrane module for diffusing the feed mixture to the membrane at an average feed outlet velocity, v greater than or equal to 1 m/s.

15 Fig. 1