CLAIMS

1) A water-wettable filtration **membrane** consisting of a microporous sheet of grafted polyolefin where the graft comprises a poloxamer of the structure

$$HO(\text{ethylene oxide})_m\text{-}(\text{propylene oxide})_n\text{-}(\text{ethylene oxide})_mH$$

where m is in the range 15 to 25 and n is in the range 50 to 90.

2) The membrane of claim 1 where the polyolefin is poly(ethylene).

3) The membrane of claim 1 or 2 where m is 20 and n is 70.

4) The membrane of any one of claims 1 to 3 where the graft comprises a crosslinking agent.

5) The membrane of claim 4 where the crosslinking agent has a molecular weight below 150 g mol^{-1}.

6) The membrane of claim 5 where the crosslinking agent is divinylbenzene.

7) A filter **assembly** comprising the membrane of any one of claims 1 to 6.

8) The assembly of claim 7 where the membrane is spiral wound.

9) A **method** of preparing a water-wettable filtration membrane comprising:

   (a) Contacting a microporous sheet of polyolefin with a solution of a poloxamer in a solvent to provide a contacted sheet;

   (b) Irradiating the contacted sheet with ultraviolet light in the presence of a photoinitiator to provide an irradiated sheet; and

   (c) Drying and washing the irradiated sheet to provide the membrane,

   where the poloxamer is a polymer of the structure

$$HO(\text{ethylene oxide})_m\text{-}(\text{propylene oxide})_n\text{-}(\text{ethylene oxide})_mH$$

   where m is in the range 15 to 25 and n is in the range 50 to 90.

10) The method of claim 9 where the polyolefin is poly(ethylene).

11) The method of claim 9 or 10 where m is 20 and n is 70.

12) The method of any one of claims 9 to 11 where the solution comprises the photoinitiator.

13) The method of any one of claims 9 to 12 where the photoinitiator is a Type II photoinitiator.

14) The method of any one of claims 9 to 13 where the photoinitiator is benzophenone.

15) The method of any one of claims 9 to 14 where the solution comprises a low molecular weight crosslinking agent.

16) The method of claim 15 where the crosslinking agent is divinylbenzene.

17) The method of any one of claims 9 to 16 where the solvent is 30 to 50 % (v/v) alcohol or acetone in water.

18) The method of any one of claims 9 to 14 where the solvent is 30 to 50 % (v/v) ethanol in water.

19) A **method** of recovering or removing water from a feed stream comprising the step of contacting a first side of a membrane of any one of claims 1 to 6 with the feed stream at a pressure sufficient to provide a permeate.

20) The method of claim 19 where the pressure is less than 10 bar and the flux is greater than 500 LMH.