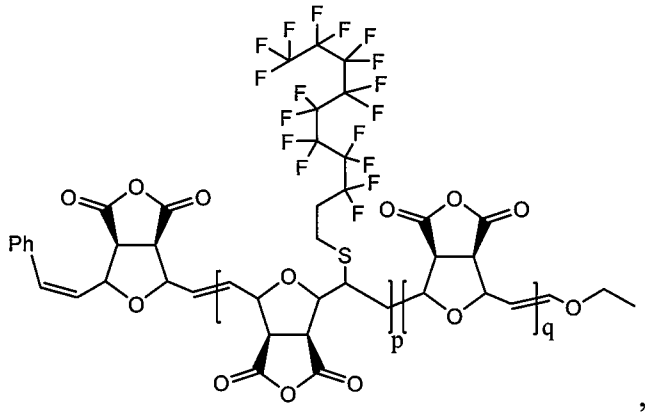
8. The composite hydrophilic porous membrane of claim 6 or 7, wherein the polymer is of the formula:

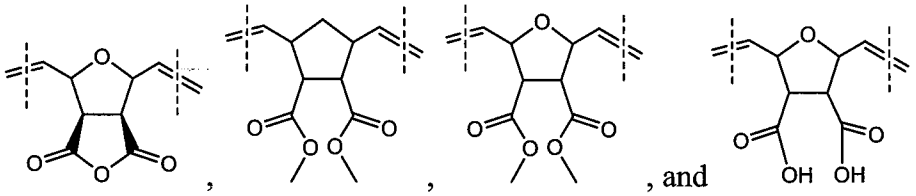


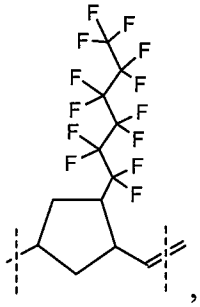
wherein p+q = m-1.

9. A method of hydrophilically modifying a porous fluoropolymer support comprising:

(i) providing a porous fluoropolymer support;

(ii) coating the porous fluoropolymer support with a solution comprising a solvent and a copolymer wherein the copolymer comprises repeat units A and B, wherein A is selected from



and B is of the formula: ,

wherein:

the copolymer is a block copolymer or a random copolymer; and

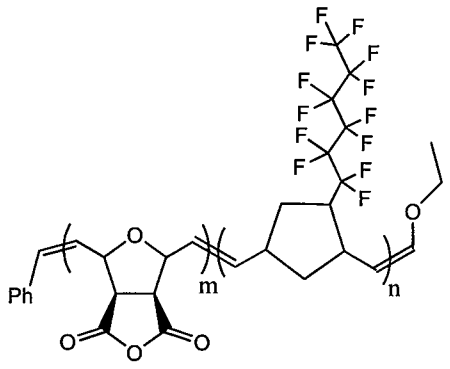
the number of repeat units of each of B and A are n and m, and range from 1 to about 1000, provided the sum of n and m is equal to or greater than 10,

(iii) drying the coated fluoropolymer support from (ii) to remove at least some of the solvent from the solution comprising said copolymer; and optionally

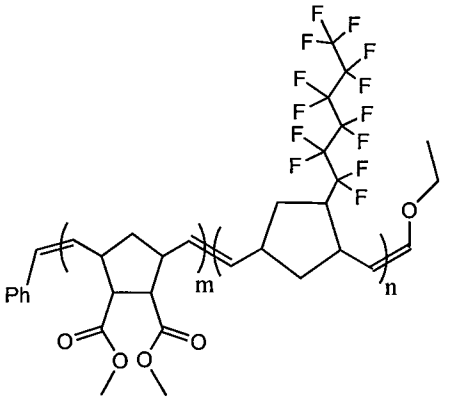
(iv) crosslinking said copolymer present in the coated fluoropolymer support.

10. The method of claim 9, wherein the copolymer has chain end groups selected from aryl groups and alkoxy groups.

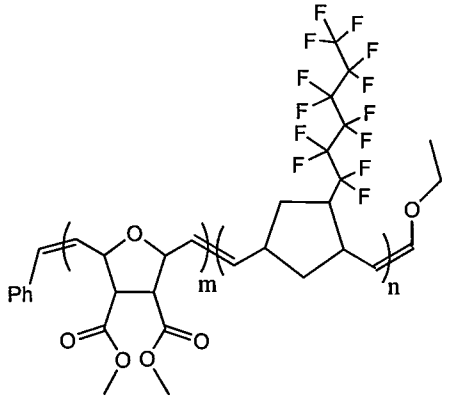
11. The method of claim 9 or 10, wherein the copolymer is of one of the following formulae:



Poly(C2-b-NPF6)



Poly(C3-b-NPF6)

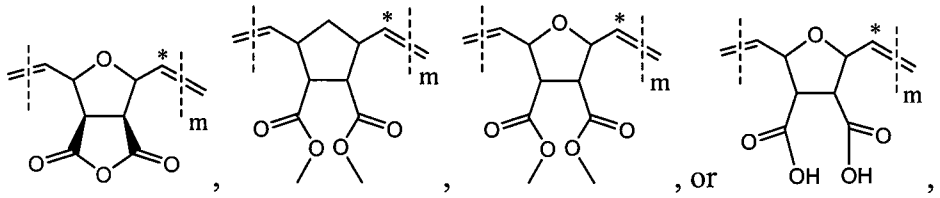


Poly(C4-b-NPF6)

14. A method of hydrophilically modifying a porous fluoropolymer support comprising:

(i) providing a porous fluoropolymer support;

(ii) coating the porous fluoropolymer support with a solution comprising a solvent and a polymer having one or more perfluoroalkylthio pendant groups attached to the backbone of the polymer whose repeat unit is of the formula:



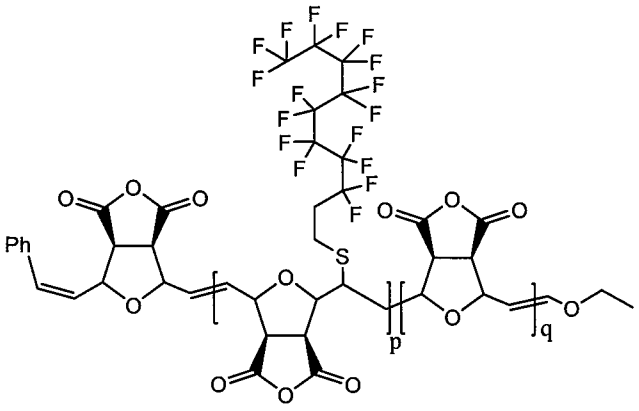
wherein * indicates the point of attachment of the perfluoroalkylthio pendant group;

(iii) drying the coated fluoropolymer support from (ii) to remove at least some of the solvent from the solution comprising the polymer; and optionally

(iv) crosslinking the polymer present in the coated fluoropolymer support.

15. The method of claim 14, wherein the polymer has chain end groups selected from aryl groups and alkoxy groups.

16. The method of claim 14 or 15, wherein the polymer is of the formula:



wherein p+q = m-1.

17. The method of any one of claims 9-16, wherein the crosslinking of the coating is carried by exposing the coating to UV radiation.

18. The composite hydrophilic porous membrane of any one of claims 1-8, wherein the porous fluoropolymer support is selected from PTFE, PVDF, PVF (polyvinyl fluoride), PCTFE (polychlorotrifluoroethylene), FEP (fluorinated ethylene-propylene), ETFE (polyethylenetetrafluoroethylene), ECTFE (poly ethylenechlorotrifluoroethylene), PFPE (perfluoropolyether), PFSA (perfluorosulfonic acid), and perfluoropolyoxetane.

19. A method of filtering a fluid, the method comprising passing the fluid through the composite hydrophilic porous membrane of any one of claims 1-8 or claim 18.