(i) dissolving the copolymer in a solvent to obtain a solution comprising the copolymer;

(ii) casting the solution from (i) to obtain a coating;

(iii) evaporating the solvent from the coating; and optionally

(iv) washing the coating to obtain the porous membrane.

11. A method of preparing a porous membrane comprising a copolymer, wherein the copolymer comprises polymerized monomeric units I and II, wherein monomeric unit I is of the formula A-X-CH_2-B, wherein A is Rf-(CH_2)n, Rf is a perfluoro alkyl group of the formula CF_3-(CF_2)$_x$- , wherein x is 3-12, n is 1-6, X is O or S, and B is vinylphenyl, and monomeric unit II is vinylpyridine;

the method comprising:

(i) dissolving the copolymer and a second polymer in a solvent to obtain a solution comprising the copolymer and the second polymer;

(ii) mixing the solution from (i) with a pore-forming powder to obtain a mixture;

(iii) casting the mixture from (ii) to obtain a coating;

(iv) evaporating the solvent from the coating;

(v) washing the coating to remove the pore-forming powder; and

(vi) drying the resulting membrane.

12. A method of filtering a fluid, the method comprising passing the fluid through the porous membrane of any one of claims 7-9.

13. The copolymer of any one of claims 1-6, wherein X is S.

14. A porous membrane comprising the copolymer of claim 13, disposed on a porous support.

15. The porous membrane of claim 14, wherein the porous support is a porous polymeric support.

16. The porous membrane of claim 15, wherein the porous polymeric support is selected from PVC/PAN, polysulfone, polyethersulfone, HDPE, PET, PPS, PPSU (polyphenyl sulfone), PTFE, PVDF, PVF (polyvinyl fluoride), PCTFE (polychlorotrifluoroethylene), FEP (fluorinated ethylene-propylene), ETFE

(polyethylenetetrafluoroethylene), ECTFE (poly ethylenechlorotrifluoroethylene), PFPE (perfluoropolyether), PFSA (perfluorosulfonic acid), and perfluoropolyoxetane.