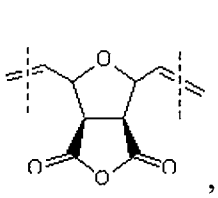
CLAIMS:

1. A hydrophilic porous membrane comprising a blend of polytetrafluoroethylene (PTFE) and an amphiphilic copolymer, wherein the amphiphilic copolymer comprises repeat units A and B, wherein A is selected from one or more of the following structures: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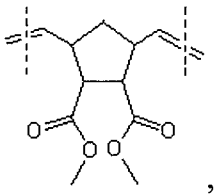
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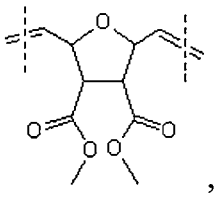
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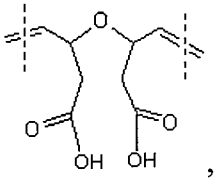
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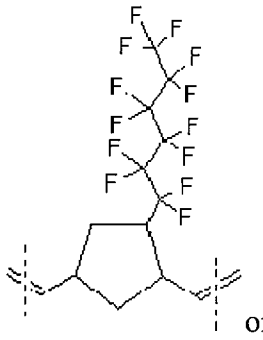
and B is of the formula:

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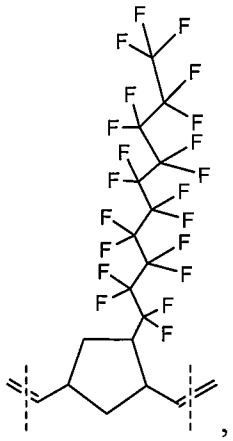
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wherein:

the amphiphilic 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.

2. The hydrophilic porous membrane of claim 1, wherein the amphiphilic copolymer has chain end groups selected from aryl groups and alkoxy groups.

3. The hydrophilic porous membrane of claim 1 or 2, wherein the amphiphilic copolymer is of one of the following formulae:

wherein $m_1 + m_2 = m$.

4. A method of preparing a hydrophilic porous membrane comprising:

(i) preparing a blend comprising PTFE and an amphiphilic copolymer, optionally with a lubricant;

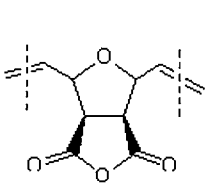
(ii) extruding the blend into a tape;

(iii) biaxially stretching the tape to obtain the hydrophilic porous membrane; optionally

(iv) reacting the hydrophilic porous membrane with an agent to modify the chemical structure of the copolymer; and optionally

(v) annealing the hydrophilic porous membrane;

wherein the amphiphilic copolymer comprises repeat units A and B, wherein A is selected from one or more of the following structures: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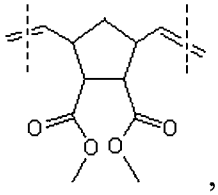
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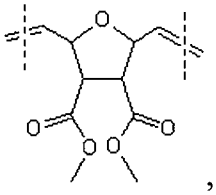
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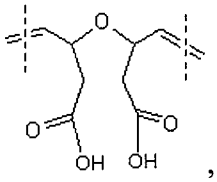
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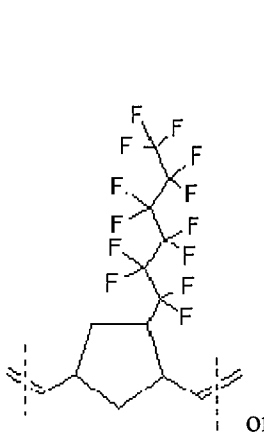
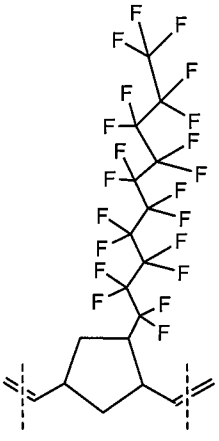
and B is of the formula:

or

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wherein:

the amphiphilic 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.

5. The method of claim 4, wherein the agent in (iv) is a base.