A HIGHLY HYDROPHILIC AND HIGHLY OLEOPHOBIC MEMBRANE FOR OIL-WATER SEPARATION

ABSTRACT

A polymeric membrane for separating oil from water has a pore size of 0.005 μm to 5 μm, a thickness of 50 μm to 1,000 μm, a water contact angle of 0° to 60°, an oil contact angle of 40° to 100°. The membrane contains a hydrophobic matrix polymer and a functional polymer that contains a hydrophobic backbone and side chains. The side chains each have an oleophobic terminal segment and a hydrophilic internal segment. The weight ratio of the matrix polymer to the functional polymer is 99:1 to 1:9. Also disclosed is a method of making the above described membrane.

(No figure to accompany abstract)