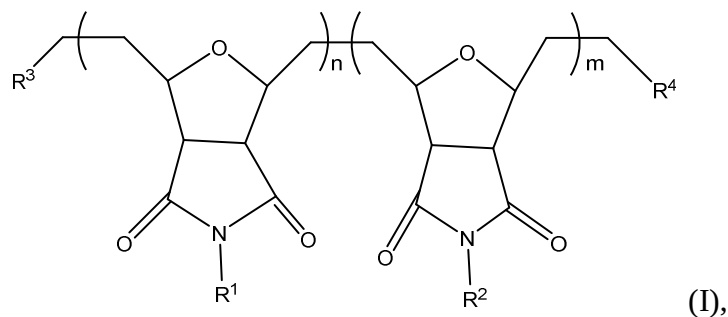


MEMBRANE COMPRISING SELF-ASSEMBLED BLOCK COPOLYMER AND
PROCESS FOR PRODUCING THE SAME BY HYBRID CASTING (IIb)

ABSTRACT OF THE DISCLOSURE

Disclosed are membranes formed from self-assembling block copolymers, for example, a diblock copolymer of the formula (I):



wherein R^1 - R^4 , n , and m are as described herein, which find use in preparing nanoporous membranes. Embodiments of the membranes contain the block copolymer that self-assembles into a cylindrical morphology. Also disclosed is a method of preparing such membrane which involves hybrid casting a polymer solution containing the block copolymer to obtain a thin film, followed by evaporation of some of the solvent from the thin film, and coagulating the resulting this film in a bath containing a nonsolvent or poor solvent for the block copolymer.

Figure 2A