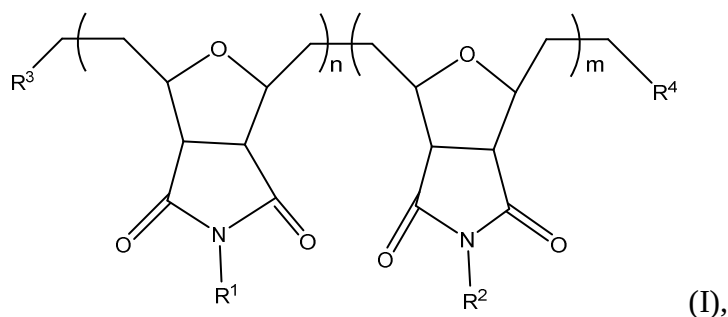


MEMBRANE COMPRISING SELF-ASSEMBLED BLOCK COPOLYMER AND
PROCESS FOR PRODUCING THE SAME BY SPRAY COATING (IIc)

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 spray coating a polymer solution containing the diblock copolymer to obtain a thin film, followed by annealing the thin film in a solvent vapor and/or soaking in a solvent or mixture of solvents to form a nanoporous membrane.

Figure 3A