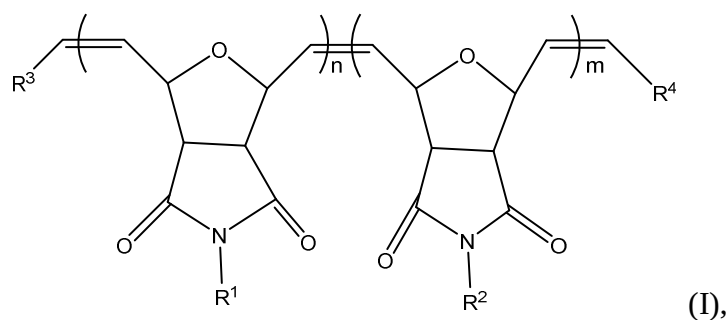


SELF-ASSEMBLED STRUCTURE AND MEMBRANE COMPRISING BLOCK
COPOLYMER AND PROCESS FOR PRODUCING THE SAME BY SPIN COATING
(IIIa)

ABSTRACT OF THE DISCLOSURE

Disclosed are self-assembled structures formed from self-assembling diblock copolymers of the formula (I):



wherein R^1 - R^4 , n , and m are as described herein, which find use in preparing nanoporous membranes. In embodiments of the self-assembled structure, the block copolymer self-assembles into a cylindrical morphology. Also disclosed is a method of preparing such self-assembled structure which involves spin coating a polymer solution containing the diblock copolymer to obtain a thin film, followed by solvent annealing of the film. Further disclosed is a method of preparing porous membranes from the self-assembled structures.

Figure 2