

ABSTRACT

Provided by the present invention is a method for preparing a porous polymer semipermeable membrane, wherein a hydrophobic polynorbornene polymer and a hydrophilic small-molecule crosslinking agent containing a thiol functional group are mixed and dissolved in a solvent capable of dissolving both of them to obtain a coating solution; the coating solution is applied onto the surface of a biosensor electrode and dried such that the hydrophobic component and the hydrophilic component undergo phase separation; then, a membrane is formed and crosslinking is carried out, the unreacted hydrophilic small-molecule crosslinking agent is removed, and re-drying is carried out to obtain a porous polymer semipermeable membrane; also disclosed is a product. For the product obtained by the preparation method of the present invention, the hydrophobicity of the polymer enables good adhesion of the porous polymer semipermeable membrane to the surface of the biosensor, and the porous structure ensures the diffusion of biological substances to the surface of the biosensor, and regulates the diffusion rate of the biological substances in the semipermeable membrane without changing the thickness of the polymer membrane significantly.