ANTIFOULING POLYMER FOR REVERSE OSMOSIS AND MEMBRANE COMPRISING SAME

ABSTRACT

The present invention provides a composite membrane suitable for liquid-liquid filtration/reverse osmosis. The invention also provides a copolymer useful in the composite membrane, the copolymer comprising an anchoring repeating unit and a foulant-repelling repeating unit, as well as methods for preparing the composite membrane and copolymers. In a preferred embodiment, a copolymer (P [SBMA-co-HEMA]) is synthesized via the free radical copolymerization of a zwitterionic monomer of sulfobetaine methacrylate (SBMA) and an anchoring monomer of hydroxyl ethyl methacrylate (HEMA).

Figure 6