

Composite Semipermeable Membrane

ABSTRACT

Disclosed is a composite semipermeable membrane, which comprises a separation functional layer on a microporous support, and in which the separation functional layer is made of a condensation product of a polymer that has acidic groups and a trialkoxysilane groups having an imidazolium structure in side chains. The composite semipermeable membrane has excellent selective separation performance for divalent ions over monovalent ions, while exhibiting excellent long-term durability. Also disclosed is a method for producing the composite semipermeable membrane. The composite semipermeable membrane is suitable for uses in various water treatment fields such as the desalination of seawater and the production of drinking water. In addition, the composite semipermeable membrane does not deteriorate as much as conventional composite semipermeable membrane even in cases where the membrane is sterilized by having chlorine-containing raw water permeate therethrough continuously or intermittently.

(No suitable figure)