

PREPARATION METHOD FOR SOLID-STATE ELECTROLYTE MEMBRANE AND USE THEREOF

ABSTRACT

The present invention provides a preparation method and use of a solid-state electrolyte membrane. In the present invention, chitosan or a derivative polymer thereof is uniformly dispersed in an organic solvent, a thiol-containing micromolecule is added, a solid-state electrolyte uniformly ground is added to a solution, and electrolyte membrane preparation is performed, followed by heat treatment and pressing, to prepare the solid-state electrolyte membrane. A trace amount of the thiol-containing micromolecule is added and can react with chitosan and sulfur in a sulfide electrolyte, improving bonding performance of chitosan. Meanwhile, the added micromolecules can act as a plasticizer, making the electrolyte membrane more flexible and contributing to the cycling stability of a battery.

FIG. 1