Abstract

Disclosed in the present invention is a hydrogenation method for an aromatic polymer. The method comprises: bringing an aromatic polymer into contact with a hydrogenation reagent in the presence of a hydrogenation catalyst so as to hydrogenate at least some aromatic rings in the aromatic polymer, wherein the hydrogenation catalyst contains a carrier and a platinum element, a group IVA element and a rare earth metal element loaded on the carrier, and the carrier is alumina. The present invention also provides hydrogenated block copolymers, hydrogenated five-block copolymers and hydrogenated seven-block copolymers. By means of the hydrogenation method provided in the invention, the aromatic ring in the aromatic polymer can be effectively hydrogenated to obtain a higher aromatic ring hydrogenation degree, the influence on the structure of the polymer is small, and the molecular chain of the aromatic polymer before and after hydrogenation reaction is essentially not degraded. The hydrogenated block copolymers of the present invention not only have high hydrogenation degree, but also have high light transmittance, low haze and excellent impact toughness.

No Figure