

ABSTRACT

Provided is a method for manufacturing a modified polymer or hydrogen adduct thereof, the method allowing components that inhibit polymerization to be removed and the remaining part to be reused as a polymerization solvent. The method involves manufacturing a modified polymer having at least one functional group in a main chain or a side chain, obtained by polymerizing with a conjugate diene and/or aromatic vinyl compound as the monomer and an active organic metal as the polymerization initiator, in the presence of a hydrocarbon-based solvent that is used as the polymerization solvent; or manufacturing a hydrogen adduct of the modified polymer. The method comprises, in sequence: (a) a solvent removal step for separating the reaction solution where the modified polymer or hydrogen adduct is dissolved in the polymerization solvent into a solvent fraction containing the hydrocarbon-based solvent and a solid fraction containing the modified polymer, or the like; (b) a low-boiling fraction separating step for distilling the solvent fraction and separating the hydrocarbon-based solvent from the low-boiling fraction containing a silanol compound; and (c) a silanol removing step for removing at least a portion of the silanol compound from the low-boiling fraction by liquid-liquid extraction using the low-boiling fraction and an extraction solvent. Furthermore, at least a portion of the extract solution where the silanol compound has been removed by liquid-liquid extraction is reused as a polymerization solvent.

Fig. 1