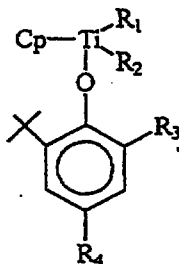




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(54) Title: PROCESS FOR HYDROGENATING A CONJUGATED DIENE POLYMER



(I)

(57) Abstract

This invention relates to a process for selectively hydrogenating the unsaturated double bonds of conjugated diene units of a homopolymer or copolymer. By using a highly active novel homogeneous organo titanium catalyst represented by formula (I) and lithium hydride (LiH) prepared in solution of organo lithium compound and hydrogen as a reducing agent, a polymer could be hydrogenated with significantly high yield and good reproducibility. In addition, this invention is characterized by a novel method in that when a copolymer containing a conjugated diene and vinyl-substituted aromatic hydrocarbon, the unsaturated double bonds of conjugated diene units are selectively hydrogenated. In said formula where, Cp is a cyclopentadienyl group (C₅H₅); R₁ and R₂ are the same or different and are selected from halogen atom; R₃ and R₄ are the same or different and are selected from hydrogen atoms, alkyl or alkoxy group containing 1 to 12 carbon atoms, aryl or aryloxy groups containing 6 to 20 carbon atoms and cycloalkyl groups containing 6 to 20 carbon atoms.