

NON-CONJUGATED CYCLIC DIENE, NON-CONJUGATED CYCLIC DIENE
COMPOSITION AND METHOD OF PRODUCING POLYMER BASED ON NON-
CONJUGATED CYCLIC DIENE

ABSTRACT OF THE DISCLOSURE

It is an object of the present invention to provide a non-conjugated cyclic diene and a non-conjugated cyclic diene composition which enable the production of a polymer based on non-conjugated cyclic diene which makes it possible to produce a (co)polymer at a high degree of polymerization activity, and a method of producing a polymer based on non-conjugated cyclic diene which makes it possible to produce a (co)polymer at a high degree of polymerization activity. A non-conjugated cyclic diene is used which meets at least one of the following requirements: (1) it contains a compound having a seven-membered cyclic triene hydrocarbon structure in a specific amount or less and (2) it contains a conjugated polyene compound having an eight-membered bicyclic hydrocarbon structure in a specific amount. Also, in a method of producing a non-conjugated cyclic diene polymer, the aforementioned non-conjugated cyclic diene is supplied to the polymerization or copolymerization using an olefin polymerization catalyst containing an organic aluminum oxy compound and/or an ionizing ionic compound. Also, in another method of producing a non-conjugated cyclic diene polymer, a non-conjugated cyclic diene which is obtained by bringing a crude non-conjugated cyclic diene into contact

with an alkali and then removing at least a part of a low-boiling point fraction and at least a part of a high-boiling point fraction is used for the polymerization.