

### ABSTRACT

There is provided a method of producing a conjugated diene rubber capable of being used as a starting material for a crosslinked rubber that can be used in applications such as tire treads and can raise the fuel efficiency. This method of producing a conjugated diene rubber comprises (a) a step of reacting a first alkoxysilane compound having in a molecule at least one group convertible to onium by an onium generator and at least one alkoxysilyl group that has at least two alkoxy groups, with a conjugated diene polymer having an alkali metal or alkaline-earth metal active terminal and obtained by polymerizing a conjugated diene compound and an aromatic vinyl compound, thereby to obtain a modified conjugated diene polymer that has the group convertible to onium and the alkoxysilyl group, and (b) a step of mixing the resulting modified conjugated diene polymer with the onium generator and a second alkoxysilane compound having in a molecule at least one alkoxysilyl group and at least one group convertible to onium by the onium generator.