MODIFIED CONJUGATED DIENE RUBBER, METHOD FOR PRODUCING SAME, AND RUBBER COMPOSITION

Abstract

A method for producing a modified conjugated diene rubber which can be used as a raw material of a cross-linked rubber which can be used for use in tire treads and the like and can enhance low fuel consumption performance is provided.

A method for producing a modified conjugated diene rubber comprising a step (a) of reacting a conjugated diene polymer having an alkali metal or alkaline-earth metal active end, which is obtained by polymerizing a conjugated diene compound or a conjugated diene compound and an aromatic vinyl compound with a hydrocarbyloxysilane compound having one or more of each of the following functional groups (I) and (II) in its molecule to obtain a modified conjugated diene polymer containing a functional group (II), and a step (b) of mixing the modified conjugated diene polymer obtained in the step (a) and one or more selected from the group consisting of organic acid compounds and organic acid derivatives to obtain the modified conjugated diene rubber.

Functional group (I): A hydrocarbyloxysilyl group

Functional group (II): A nitrogen-containing group in which both of two hydrogen atoms of a primary amino group are substituted with protective groups