

ABSTRACT

The object of the present invention is to provide production method of an α -olefin low polymer using a chromium series catalyst comprising a pyrrole compound as a component. The present invention relates to that in producing an α -olefin low polymer such as 1-hexene using an α -olefin such as ethylene as a raw material, a chromium series catalyst constituted of a chromium compound (a), a pyrrole compound (b) and an aluminum-containing compound (c) is used as a polymerization catalyst, and a concentration of a pyrrole dimer contained in the pyrrole compound (b) is 2% by weight or less based on the pyrrole compound (b).