

ABSTRACT

SYNTHESIS METHOD OF CHIRAL PHOSPHORIC ACID CATALYST

The present application relates to the technical field of compound synthesis, and in particular to a synthesis method of chiral phosphoric acid catalyst. The synthesis method of chiral phosphoric acid catalyst includes: halogenation reaction, performed by using a [1,1'-binaphthyl]-2,2'-diol and a halogenating agent as raw materials to obtain an intermediate I; Suzuki coupling reaction, performed by using the intermediate I and a boronic acid compound as raw materials to obtain an intermediate II, the intermediate II is represented as general formula (I); and in the general formula (I), R is selected from phenylmethyl, phenanthryl, phenyl, tert-butyl phenyl, trifluoromethyl phenyl, nitrophenyl, triisopropyl phenyl; and performing the intermediate II to phosphorylation reaction, and obtaining a crude chiral phosphate catalyst. The synthesis method in the present application has the advantages of reduced synthesis cost of chiral phosphoric acid catalysts, simple and efficient synthetic route, and mild and safe reaction conditions, which provides a reliable basis for the industrialization of large-scale production.

Figure 1