

Abstract

A preparation method for an aryl substituted p-phenylenediamine substance is provided. A structural formula of the aryl substituted p-phenylenediamine substance is shown as Formula (I'), where R'' is phenyl or o-methylphenyl, and R' is the same as or different from R''; and the preparation method comprises that: a raw material A and a raw material B are reacted in the presence of a hydrogen acceptor and a catalyst to form the aryl substituted p-phenylenediamine substance, the raw material A having a structure shown as Formula (I), the raw material B being cyclohexanone and/or o-methylcyclohexanone and the hydrogen acceptor being a hydrogen acceptor capable of accepting hydrogen for conversion into the raw material B. According to the preparation method, the raw materials are low in cost and readily available, and use of a large amount of water for posttreatment of reaction is avoided. Moreover, a reaction condition is relatively mild, and corrosion to reaction equipment is avoided. Therefore, the preparation method is environment-friendly and less in pollution, and may achieve better economic benefits.