

ABSTRACT

A preparation method for optically active citronellal, which can obviously enhance the catalytic stability of an optically active transition metal catalyst for asymmetric hydrogenation of homogeneous catalysis and thereby achieve higher turnover numbers. In the preparation method
5 for optically active citronellal, a substrate is subjected to an asymmetric hydrogenation reaction in the presence of the transition metal catalyst to generate the optically active citronellal, wherein the transition metal catalyst is obtained by reacting a transition metal compound with an optically active ligand containing two phosphorus atoms, and the raw material of the substrate is one of neral and geranial or a combination thereof to control the hydroxyl value to be less than or equal
10 to 6 mgKOH/g and/or the iron content to be less than or equal to 50 ppm in the raw material of the substrate for the asymmetric hydrogenation reaction.

No suitable figure