

Abstract

Hydrocracking Catalyst, Preparation Method and Use Thereof, and Method for Hydrocracking Catalytic Diesel Oil

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The present invention relates to the catalytic diesel oil hydrocracking field, and discloses a hydrocracking catalyst, a method for preparing the same and a use of the same, and a method for hydrocracking catalytic diesel oil. The catalyst comprises a supporter, an active metal component, and carbon, wherein, based on the total weight of the catalyst, the content of the supporter is 60~90wt%, the content of the active metal component calculated in metal oxides is 15~40wt%, and the content of carbon calculated in C element is 1~5wt%; measured with an infrared acidimetric estimation method, the acid properties of the hydrocracking catalyst are: the total infrared acid amount is 0.4~0.8mmol/g, wherein, the infrared acid amount of strong acid with desorption temperature greater than 350℃ is 0.08mmol/g or lower, and the ratio of the total infrared acid amount to the infrared acid amount of strong acid with desorption temperature greater than 350℃ is 5~50. The catalyst has rational infrared acid intensity distribution, can be used in catalytic diesel oil hydrocracking reaction, and can maintain high reactivity and stability of the reaction while remarkably improving the yield of gasoline product, total liquid yield, and octane number of gasoline product.

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Figure for publication: None