

【ABSTRACT】

CATALYST FOR CATALYTIC CRACKING OF HYDROCARBON, WHICH IS USED IN PRODUCTION OF LIGHT OLEFIN AND PRODUCTION METHOD THEREOF

Disclosed are a molecular sieve catalyst and a preparation method thereof to produce light olefins from cracking naphtha catalytically in severe environments of high temperature and high moisture. In detail, the catalyst is prepared by spray-drying and calcining the mixed slurry, in which 0.01~5.0 wt% of MnO_2 and 1~15 wt% of P_2O_5 are simultaneously imbedded in catalyst which consists of zeolite, clay and inorganic complex. According to the present invention, the method that manganese and phosphate are imbedded simultaneously in zeolite and inorganic complex is used to increase thermal-stability of obtained spherical catalyst, and increase olefin yield of cracking hydrocarbon such as naphtha by protecting acid-site of zeolite. To synthesize the required catalyst, the important procedures are mixing ratio and mixing sequence of Mn, P, zeolite, and inorganic complex.

Fig 1