CATALYST FOR PRODUCTION OF AROMATIC HYDROCARBON COMPOUNDS

ABSTRACT

There is provided a zeolite-containing molded catalyst for use in production of aromatic hydrocarbon compounds by catalytic cyclization from light hydrocarbon feedstock, whereby deterioration due to precipitation of carbonaceous material during the reaction and permanent degradation due to contact with high-temperature steam during the catalyst regeneration process are suppressed to thereby allow stable production with high yield over a long period of time. In this catalyst, the zeolite contained in the zeolite-containing molded catalyst fulfills the following conditions (1), (2) and (3):

(1) the zeolite is a medium pore diameter zeolite with a pore diameter of from 5 to 6.5 Å;

(2) the zeolite has a primary particle diameter in a range of from 0.02 to 0.25 μm; and

(3) the zeolite contains at least one metal element selected from the group consisting of the metal elements belonging to Group IB in the periodic table,

and the zeolite-containing molded catalyst also contains at least one element selected from the group consisting of the elements belonging to Groups IB, IIB, IIIB and VIII in the periodic table.

Fig. 2