

ABSTRACT

It is an object of the present invention to provide an improved process whereby the yield structure of the components can be varied by a simple method, and the products can be produced stably and efficiently in a process for producing propylene and aromatic hydrocarbons from a hydrocarbon feedstock containing C₄₋₁₂ olefins using a medium pore diameter zeolite-containing catalyst. A process for producing is disclosed which comprises a propylene production step wherein a specific zeolite catalyst is used to remove a C₄₊ hydrocarbon component from a reaction mixture, and part of the hydrocarbon component is recycled as necessary without modification, and an aromatic hydrocarbon production step wherein all or a part of the C₄₊ hydrocarbon component is used as the raw material.