

ABSTRACT

The present invention discloses a process for producing olefins from petroleum saturated hydrocarbons. The process of the present invention comprises: contacting a preheated petroleum saturated hydrocarbons feedstock with a dehydrogenation catalyst in a dehydrogenation reaction zone of a reaction system to obtain a petroleum hydrocarbon stream containing unsaturated hydrocarbon compounds, in which the dehydrogenation reaction has a conversion rate of at least 20%; and contacting the obtained petroleum hydrocarbon stream containing the unsaturated hydrocarbon compounds with olefins cracking catalyst in an olefin cracking zone of the reaction system to obtain a product stream containing olefins with a reduced number of carbon atoms.