

A B S T R A C T

HYDROCRACKING PROCESS

Process for hydrocracking a hydrocarbonaceous feedstock wherein use is made of a reactor comprising at least two separate beds of catalyst stacked on top of each other, which catalyst comprises one or more hydrogenation components of a Group VIB metal and/or Group VIII metal and a carrier having hydrocracking activity, whereby the metals content of at least one of the hydrogenation components of the catalyst used in one or more of the top beds comprising up to fifty percent by volume of the total catalyst used in the reactor is at least 1.5 times the metals content of the corresponding hydrogenation component of the catalyst used in the remaining beds and the average effective particle diameter of the catalyst used in one or more of the top beds is at most 0.75 times the average effective particle diameter of the catalyst used in the remaining beds.