

Abstract

A direct cracking method of a hydrocarbon for directly cracking a hydrocarbon into carbon and hydrogen in each of a first reactor and a second reactor includes: a step of continuously flowing a catalyst containing iron as a catalyst component through the first reactor and then flowing the catalyst through the second reactor; and a step of continuously flowing a feedstock gas containing a hydrocarbon through one of the first reactor or the second reactor and then flowing the feedstock gas through the other of the first reactor or the second reactor, in which the feedstock gas and the catalyst come into contact with each other in each of the first reactor and the second reactor under a condition that a pressure in the second reactor is higher than a pressure in the first reactor.