Abstract

Steam cracking process

The present disclosure provides a steam cracking process, comprising heating a liquid feed stock in a convection section of a cracking furnace and subsequently conveying the material to a radiant section of the cracking furnace for cracking reaction therein, wherein a monoolefin-containing stream is conveyed to the cracking furnace for cracking reaction through at least one of modes A to C. The monoolefin-containing stream is a hydrocarbon stream containing at least one selecting from a group consisting of ethylene, propylene, butene, pentene and hexene, the sum content of ethylene, propylene, butene, pentene and hexaene accounting for more than 10% by weight of the hydrocarbon stream. The first mixture is a mixture comprising the monoolefin-containing stream and at least one of steam and hydrogen. The steam cracking process of the present disclosure can relieve formation of coke in the convection section of the cracking furnace when olefins are served as part of feed stock, so that the cracking furnace can work stably in a long term.

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