

Title (en)
HEAT INTEGRATION IN AN OLEFINS PRODUCTION PROCESS USING AN ELECTRICALLY HEATED GAS IN A STEAM CRACKER FURNACE

Title (de)
WÄRMEINTEGRATION IN EINEM VERFAHREN ZUR HERSTELLUNG VON OLEFINEN UNTER VERWENDUNG EINES ELEKTRISCH ERWÄRMTE GASES IN EINEM DAMPFCKRACKOFEN

Title (fr)
INTÉGRATION DE CHALEUR DANS UN PROCÉDÉ DE PRODUCTION D'OLÉFINES À L'AIDE D'UN GAZ CHAUFFÉ ÉLECTRIQUEMENT DANS UN FOUR DE CRAQUAGE À LA VAPEUR

Publication
EP 4386067 A1 20240619 (EN)

Application
EP 22386092 A 20221212

Priority
EP 22386092 A 20221212

Abstract (en)
The invention relates to a process for producing olefins from a feed stream containing hydrocarbons by pyrolytic cracking of the hydrocarbons in a steam cracker furnace, said process comprising feeding the hydrocarbons-containing feed stream to a tube in the convection section of the steam cracker furnace; pre-heating the hydrocarbons-containing feed stream in the convection section; feeding the pre-heated hydrocarbons-containing feed stream to a tube in the radiant section of the steam cracker furnace; and heating and pyrolytic cracking the hydrocarbons-containing feed stream in the radiant section resulting in an effluent containing olefins, wherein: at least part of the energy used in pre-heating and heating the hydrocarbons-containing feed stream through indirect heat exchange in the steam cracker furnace is provided through indirect heat exchange between an electrically heated gas outside the tube and the hydrocarbons-containing feed stream inside the tube in the steam cracker furnace; and at least part of the used electrically heated gas is electrically re-heated and then re-used in said pre-heating and/or said heating.

IPC 8 full level
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CPC (source: EP)
C10G 9/24 (2013.01); **C10G 9/36** (2013.01); **C10G 2400/20** (2013.01)

Citation (applicant)
• EP 3725865 A1 20201021 - SABIC GLOBAL TECHNOLOGIES BV [NL]
• WO 2021052642 A1 20210325 - TECHNIP FRANCE [FR]
• WO 2018229267 A1 20181220 - TECHNIP FRANCE [FR]

Citation (search report)
[X1] CN 113801683 A 20211217 - WISON ENG LTD

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