

Title (en)

A METHOD FOR DETERMINING A TIME FOR DECOKING A STEAM CRACKING PLANT

Title (de)

VERFAHREN ZUR BESTIMMUNG DER ZEIT ZUM ENTKOKEN EINER DAMPF-CRACKANLAGE

Title (fr)

PROCÉDÉ PERMETTANT DE DÉTERMINER UNE HEURE POUR LE DÉCOKAGE D'UNE INSTALLATION DE CRAQUAGE À LA VAPEUR

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Application

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Priority

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Abstract (en)

The present invention relates to a computer implemented method for determining a time for decoking steam cracking furnaces of a steam cracking plant, wherein the steam cracking plant comprises at least two cracking furnaces, the method comprising the steps of providing (201) a model for simulating an operation of each cracking furnace during a predetermined time interval and for determining a production yield of each cracking furnace and an accumulation of coke in each cracking furnace during this predetermined time interval; defining (202) for each cracking furnace at least two operating scenarios, wherein each operating scenario specifies individual operating conditions for the operation of the corresponding cracking furnace; formulating (203) as an optimisation problem to maximise the production yield of each cracking furnace utilising the model in dependence of a time of decoking of each cracking furnace, at which during the predetermined time interval the accumulated coke in the corresponding cracking furnace is at least partially removed; solving (205) the optimisation problem and determining (208) an optimised time of decoking for each cracking furnace comprising selecting (206) one of the corresponding at least two scenarios for each of the cracking furnaces.

IPC 8 full level

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CPC (source: EP)

C10G 9/007 (2013.01); **C10G 9/16** (2013.01); **C10G 9/36** (2013.01); **C10G 75/00** (2013.01)

Citation (applicant)

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