

Title (en)
APPARATUS AND METHOD FOR THE CATALYTIC PRESSURE-FREE DEPOLYMERISATION

Title (de)
VORRICHTUNG UND VERFAHREN ZUR KATALYTISCH DRUCKLOSEN VERÖLUNG

Title (fr)
DISPOSITIF ET PROCÉDÉ DE DÉPOLYMÉRISATION CATALYTIQUE SANS PRESSION

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Abstract (en)
[origin: WO2016116484A1] The invention relates to a device for the catalytic pressure-less depolymerization of a hydrocarbon-containing starting material (15), comprising: at least one oil supply (12, 12-1, 12-2, 12-3) with oil (19); at least two mixing reactors, wherein a starting material (15) can be mixed and preheated in a first mixing reactor (13); and a separator (2). The invention further relates to a method for the catalytic pressure-less depolymerization of hydrocarbon-containing starting materials (15), having the following steps: finely commutating, mixing, and preheating a starting material (15) with oil (19) from an oil supply (12) in a first mixing reactor (13); transferring the mixed and preheated starting material (15) into a second mixing reactor (14); thermolyzing the oil/starting material mixture; and transferring the oil/starting material mixture into a separator (2) for depolymerizing the oil/starting material mixture in the separator (2). Heat is input into the carrier oil starting material by a friction-type turbine (11), and the middle distillate is distilled in the separator (2). The entire process is operated in an automatically temperature-controlled manner, and the used carrier oil residue mixture is recycled via a centrifuge (18). Only the solids are further processed, and the carrier oil (19) is returned to the circuit. Fig. 2

IPC 8 full level
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