

Title (en)

PROCESS FOR CONVERSION OF WASTE PLASTICS INTO HYDROCARBONS

Title (de)

VERFAHREN ZUR UMWANDLUNG VON KUNSTSTOFFABFÄLLEN IN KOHLENWASSERSTOFFE

Title (fr)

PROCESSUS DE CONVERSION DE DÉCHETS PLASTIQUES EN HYDROCARBURES

Publication

**EP 4359489 A1 20240501 (EN)**

Application

**EP 22734936 A 20220617**

Priority

- EP 21180965 A 20210622
- EP 2022066603 W 20220617

Abstract (en)

[origin: WO2022268663A1] The present invention relates to a process for production of chemical feedstocks from waste plastics, the process comprising providing a process configuration comprising a fractionation tower (1), a furnace (2), one or more coke drum(s) (3), and a pre-reactor (4), configured so that a bottoms stream (A) from the fractionation tower is mixed with an oligomeric stream (L) and supplied to the furnace, the product stream from the furnace (C) is supplied to a coke drum, and an overhead stream (D) from the coke drum is supplied back to the fractionation tower; wherein the oligomeric stream (L) is obtained as product stream from conversion of a waste plastics stream (B) in the pre-reactor, and has a weight average molecular weight of between 5,000 and 10,000 g/mol. Such process allows for the conversion of a wide variety of waste plastics into valuable chemical products. Furthermore, such process allows for the increase in production of naphtha-range hydrocarbon products that may be used for production of for example new thermoplastic polymer product via conversion in steam cracker facilities.

IPC 8 full level

**C10B 55/00** (2006.01); **C10B 53/07** (2006.01); **C10B 57/08** (2006.01); **C10G 1/00** (2006.01); **C10G 1/10** (2006.01)

CPC (source: EP)

**C10B 53/07** (2013.01); **C10B 55/00** (2013.01); **C10B 57/08** (2013.01); **C10G 1/002** (2013.01); **C10G 1/10** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**WO 2022268663 A1 20221229**; CN 117545823 A 20240209; EP 4359489 A1 20240501

DOCDB simple family (application)

**EP 2022066603 W 20220617**; CN 202280044097 A 20220617; EP 22734936 A 20220617