

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
06 July 2023 (06.07.2023)



(10) International Publication Number
WO 2023/126588 A1

(51) International Patent Classification:
C10G 65/04 (2006.01) C10G 3/00 (2006.01)

(21) International Application Number:
PCT/FI2022/050887

(22) International Filing Date:
30 December 2022 (30.12.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20216368 30 December 2021 (30.12.2021) FI
20216369 30 December 2021 (30.12.2021) FI
20216372 30 December 2021 (30.12.2021) FI
20216374 30 December 2021 (30.12.2021) FI
20216376 30 December 2021 (30.12.2021) FI

(71) Applicant: NESTE OYJ [FI/FI]; Keilaranta 21, 02150 Espoo (FI).

(72) Inventors: HOVI, Meri; c/o Neste Oyj/IPR, P.O. Box 310, 06101 Porvoo (FI). SIPPOLA, Väinö; c/o Neste Oyj/IPR, P.O. Box 310, 06101 Porvoo (FI). AALTO, Pekka; c/o Neste Oyj/IPR, P.O. Box 310, 06101 Porvoo (FI). MYLLYOJA, Jukka; c/o Neste Oyj/IPR, P.O. Box 310, 06101 Porvoo (FI). LAMMINPÄÄ, Kaisa; c/o Neste Oyj/IPR, P.O. Box 310, 06101 Porvoo (FI). RIEKKOLA, Tiina; c/o Neste Oyj/IPR, P.O. Box 310, 06101 Porvoo (FI). PASANEN, Antti; c/o Neste Oyj/IPR, P.O. Box 310, 06101 Porvoo (FI). LINDQVIST, Petri; c/o Neste Oyj/IPR, P.O. Box 310, 06101 Porvoo (FI). TOPPINEN, Sami; c/o Neste Oyj/IPR, P.O. Box 310, 06101 Porvoo (FI). KYLLÖNEN, Pia; c/o Neste Oyj/IPR, P.O. Box 310, 06101 Porvoo (FI).

(74) Agent: KOLSTER OY AB; (Salmisaarenaukio 1), P.O. Box 204, 00181 Helsinki (FI).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

Published:

— with international search report (Art. 21(3))
— in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE

(54) Title: PRODUCING HYDROCARBONS FROM ORGANIC MATERIAL OF BIOLOGICAL ORIGIN

(57) Abstract: The present invention provided a process for producing hydrocarbons from a feedstock comprising organic material of biological origin, comprising a) providing a feedstock comprising organic material of biological origin, b) pre-treating the feedstock in one or more pre-treatment stages to obtain a purified feedstock, c) subjecting said purified feedstock to pre-hydrotreatment to obtain a stream of partly hydrotreated feed, d) subjecting the stream of partly hydrotreated feed to hydrotreatment to obtain a stream of hydrocarbons, e) distilling the stream of hydrocarbons to obtain at least two fractions, a first heavy bottom fraction, which is removed from the process and a second middle fraction, which is collected for further processing, and f) subjecting the collected middle fraction to isomerisation to obtain an isomerised stream of hydrocarbons.



WO 2023/126588 A1