CLAIMS

1. A process for pretreating renewable feedstock comprising triacylglycerols and one or more organic nitrogen compounds, wherein said process comprises the steps,

(i) collecting at least one sample of said renewable feedstock and purifying said sample by removal of triacylglycerols, to obtain a purified sample;

(ii) conducting an analysis of said purified sample to provide data on at least one organic nitrogen compound in said renewable feedstock;

(iii) identifying at least one organic nitrogen compound(s) using said data;

(iv) selecting based on the identified organic nitrogen compound(s) at least one pretreatment step capable of reducing or removing from the renewable feedstock said identified organic nitrogen compound;

(v) subjecting the renewable feedstock to at least one pretreatment(s) selected in step (iv) to obtain a pretreated renewable feedstock suitable for hydrotreatment into branched paraffinic hydrocarbons, said pretreated renewable feedstock having a content of the organic nitrogen compound(s) lower than that in the sample collected in step (i).

2. The process according to claim 1, wherein the removal of triacylglycerols from the sample in step (i) is conducted as solid phase extraction or as flash chromatography providing fractions of the purified sample.

3. The process according to claim 2, wherein flash chromatography comprises a column, such as such as amino, silica or diol column, and increasing polarity of solvents during the extraction.

4. The process according to any of preceding claims, wherein the analysis conducted in step (ii) comprises use of gas chromatography/high-resolution mass spectrometry (GC-HRMS) for detection of the organic nitrogen compound(s) from the purified sample or a fraction thereof.

5. The process according to claim 4, wherein identification in step (iii) comprises using an automated target screening master method including a library database with compound-specific identifiers.

6. The process according to any of preceding claims, wherein at least one organic nitrogen compound(s) is in step (iii) identified as a primary fatty acid amide, a secondary fatty acid amide, a tertiary fatty acid amide, a N-alkenyl amide, an imide, a diketopiperazine, a nitrile or a sulfur-containing fatty acid amide, preferably a secondary fatty acid amide, a tertiary fatty acid amide, a N-alkenyl amide, an imide, a diketopiperazine, a nitrile or a sulfur-containing fatty acid amide.

7. The process according to claim 1, wherein two or more feedstock pretreatments are conducted in sequence in step (v).

8. The process according to claim 1 or 7, wherein the feedstock pretreatment is, or the pretreatments are, selected from a degumming, heat treatment, acid treatment, such as strong acid treatment, filtration, bleaching with adsorbent or any combination thereof.

9. The process according to any of claims 1 - 8, wherein the pretreated renewable feedstock is subjected to hydrotreating in the presence of a catalyst selected from Pd, Pt, Ni, Co, Mo, Ru, Rh, W, or any combination of these, such as CoMo, NiMo, NiW, CoNiMo, on a support, wherein the support is preferably alumina and/or silica, and a liquid product is recovered.

10. The process according to any of claims 1 - 9, wherein hydrotreating comprises hydrodeoxygenation at reaction conditions comprising a temperature in the range from 100 to 500 °C, preferably from 250 to 400 °C, more preferably from 280 - 350 °C, most preferably at temperature of 300-330 °C, and/or a pressure in the range from 0.1 to 20 MPa, preferably from 0.2 to 8 MPa, and the hydrotreating product is a hydrodeoxygenation product.

11. The process according to claim 10, wherein hydrodeoxygenation product contains more than 99 wt% hydrocarbons and less than 0.3 wppm nitrogen, measured as elemental nitrogen.

12. The process according to any of claims 1 - 11, wherein the liquid product from hydrotreating is subjected to hydroisomerisation in the presence of an

hydroisomerisation catalyst containing a support, a metal and a further catalyst material, said support selected from Al_2O_3 and SiO_2, and said metal selected from Pt and Pd and Ni, and said further catalyst material selected from SAPO-11 and SAPO-41 and ZSM-22 or ZSM-23, to produce branched paraffinic hydrocarbons.

13. The process according to claim 12, the hydroisomerisation is performed at a temperature from 250 to 400 °C, more preferably from 280 to 370 °C, most preferably from 300 to 350 °C, and/or at a pressure from 1 to 6 MPa, preferably from 2 to 5 MPa, more preferably from 2.5 to 4.5 MPa.