

Title (en)

Aircraft fuels based on synthetic hydrocarbons with a high percentage of isoparaffin and method for manufacturing aircraft fuels with alcohols

Title (de)

Flugzeugtreibstoffe auf basis synthetischer Kohlenwasserstoffe mit hohem Isoparaffinanteil und Verfahren zur Herstellung von Flugzeugtreibstoffen ausgehend von Alkoholen

Title (fr)

Kérosène pour avions à base d'hydrogène de carbone synthétique doté d'une partie en isoparaffine élevée et procédé de fabrication de kérosène pour avions issus d'alcools

Publication

**EP 1927644 A2 20080604 (DE)**

Application

**EP 07014537 A 20070724**

Priority

- EP 06024936 A 20061201
- EP 07007547 A 20070412
- EP 07014537 A 20070724

Abstract (en)

Airplane fuel (I) obtained from a synthesis gas having a carbon-content of 84-86 mass%, an olefin-content of less than 0.1 mass%, an alcohol content of less than 0.1 mass%, and an isoparaffin content of greater than 75 mass%, and exhibiting a freezing point of = -47[deg] C, is claimed, where the ratio of isoparaffin to sum of normal paraffin, cycloparaffin and aromate is greater than 3. Independent claims are included for: (1) preparing (I) from 1-5C alcohol, comprising oligomerizing and/or polymerizing a synthetic hydrocarbon with an isoparaffin portion of at least 75 mass % and olefin hydrocarbon mixture with a portion of odd olefin and isoolefin of at least 50 mass%, which is obtained at least partly from 1-5C-alcohol, and hydrogenating and rectifying the obtained mixture, and removing the kerosene; and (2) a use of (I) as a mixture components (comprising normal paraffin (less than 25 mass%) and tetradecane (maximum of 2 mass%), where: the content of normal paraffins with 15C-atoms is less than 0.5 mass %, the total content of normal paraffins with 15-18C-atoms is less than 0.3 mass% and the total content of normal paraffins with 18C-atoms is less than 0.1 mass%) for mixing with conventional fuels.

Abstract (de)

Die Erfindung betrifft einen Flugzeugtreibstoff mit einem Freezing Point von -47 °C oder niedriger auf Basis synthetischer Kohlenwasserstoffe mit einem Isoparaffin-Anteil von mehr als 75 Masse-%, sowie ein Verfahren zur Herstellung eines solchen Flugzeugtreibstoffs ausgehend von insbesondere biogenen Alkoholen.

IPC 8 full level

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CPC (source: EP)

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