

**PRODUCTION OF PARAFFINIC FUELS FROM RENEWABLE MATERIALS
USING A CONTINUOUS HYDROTREATMENT PROCESS**

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A B S T R A C T

10 The invention concerns a process for hydrotreating a feed originating from renewable
sources such as vegetable oils to produce paraffinic hydrocarbons in the presence of hydrogen
in excess over the theoretical hydrogen consumption and under hydrotreatment conditions in a
fixed bed reactor having a plurality of catalytic zones disposed in series and comprising a
hydrotreatment catalyst. The total feed flow is divided into a certain number of different part
15 flows equal to the number of catalytic zones in the reactor; the various part flows are injected
into the successive catalytic zones in increasing proportions to produce an effluent comprising
paraffinic hydrocarbons. The effluent undergoes a separation step in order to separate a gas
fraction and a liquid fraction containing the paraffinic hydrocarbons. At least a portion of said
liquid fraction is recycled to the first catalytic zone so that the weight ratio between said recycle
20 and the part flow introduced into the first catalytic zone is 10 or more.

Figure 1