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(54) Title: SUSTAINABLE AVIATION FUEL FROM NORMAL ALPHA OLEFIN BYPRODUCTS AND PROCESS FOR SAME

(57) Abstract: Process for making sustainable aviation fuel (SAF) from specific bio-ethylene oligomerization reactions producing a C₄-C₈ alpha-olefin and a by-product mixture of C₁₀ olefins. This mixed decene stream is upgraded by further oligomerizing with at least one C₄-C₆ alpha-olefin to provide a C₁₆-olefin stream, which is hydrogenated to C₁₆-paraffins which is used to form a SAF. Employing bio-ethylene to produce the mixed decene stream, which is relatively low-value due in part to its non-selectivity, leverages that non-selectivity into a desirable sustainable aviation fuel product where the low selectivity is preferable. These and other embodiments and aspects are described herein.



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