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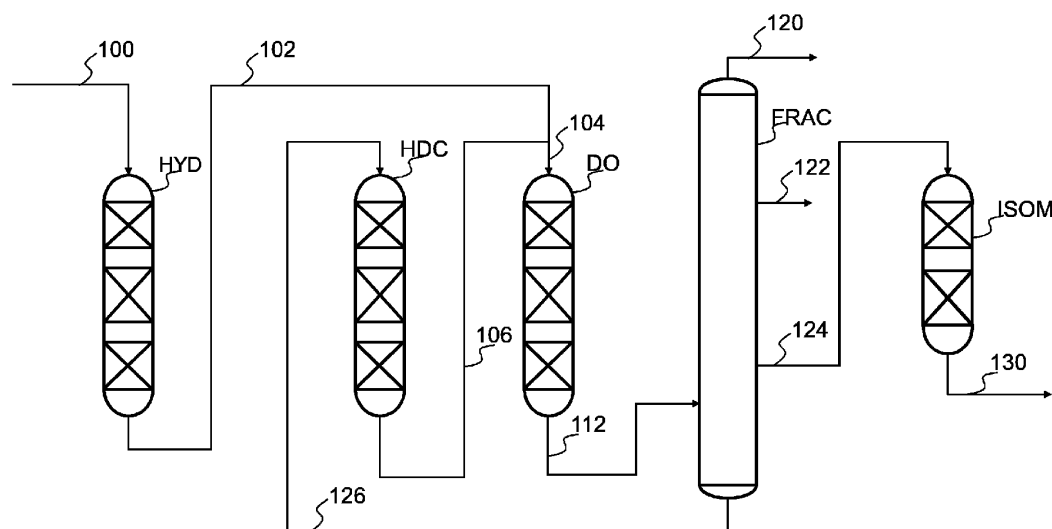


Fig. 1

(57) Abstract: A broad aspect of the present disclosure relates to a process plant and a method for producing a hydrocarbon mixture suitable for use as an aviation fuel having an end-boiling point according to ASTM D86 below 300°C from a decarboxylation feedstock being a feedstock comprising fatty acid esters and/or triglycerides and comprising C18 side-chains, to a deoxygenated hydrocarbon mixture by directing said decarboxylation feedstock to contact a material catalytically active in decarboxylation under decarboxylation conditions where the ratio between deoxygenation by formation of carbon oxides and deoxygenation by formation of water is at least 1.5:1, 2:1 or 3:1, as measured by the ratio of C17 paraffins to C18 paraffins in the deoxygenated hydrocarbon mixture, with the associated benefit of such a decarboxylation based method selectively reducing the product carbon length by a single carbon atom, compared to a hydrodeoxygenation based method, which is beneficial for processes requiring a moderate reduction of end boiling point.

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