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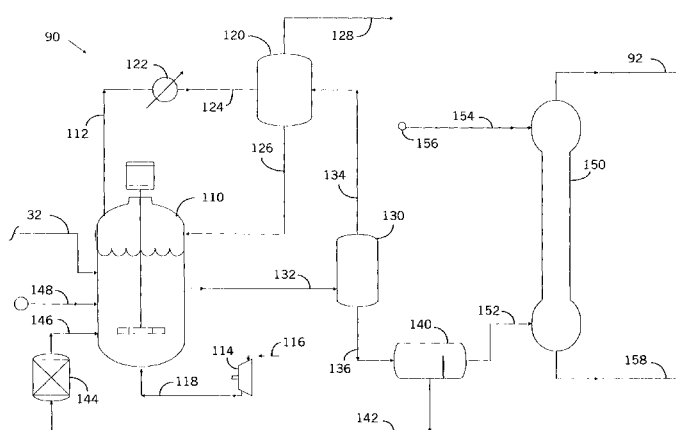
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(54) Title: INTEGRATED PREPARATION OF BLENDING COMPONENTS FOR REFINERY TRANSPORTATION FUELS



(57) **Abstract:** Economical processes are disclosed for production of components for refinery blending of transportation fuels which are liquid at ambient conditions by selective oxygenation of refinery feedstocks comprising a mixture of organic compounds. The organic compounds are oxygenated with dioxygen in a liquid reaction medium containing a soluble catalyst system comprising at least one multi-valent and/or heavy metal while maintaining the liquid reaction medium substantially free of halogen and/or halogen-containing compounds, to form a mixture of immiscible phases comprising hydrocarbons, oxygenated organic compounds, water of reaction, and acidic co-products. The mixture of immiscible phases is separated by gravity to recover at least a first organic liquid of low density and second liquid of high density which contains at least a portion of the catalyst metal, water of reaction and acidic co-products. Advantageously, the organic liquid is washed with an aqueous solution of sodium bicarbonate solution, or other soluble chemical base capable to neutralize and/or remove acidic co-products of oxidation, and recover oxygenated product.



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