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(54) **Title:** METHOD OF PROVIDING A BIO-OIL TO A HYDRODEOXYGENATION REACTOR

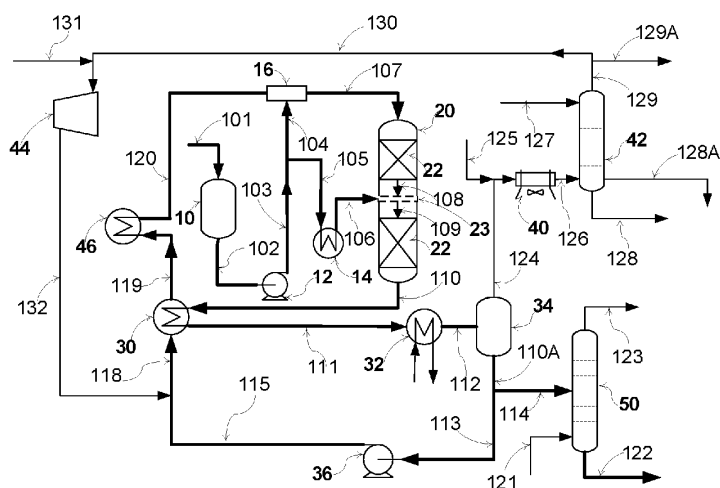


Fig. 1

(57) Abstract: A method is disclosed for hydrodeoxygenation of a bio-oil over a catalyst bed in a hydrodeoxygenation reactor, the method including combining a two-phase diluent having a water dew point and a bio-oil at a bio-oil temperature that is from 50 °F less than to 50 °F more than the water dew point. The two-phase diluent includes a liquid phase and a vapor phase, where the liquid phase includes a hydrocarbon and the vapor phase includes hydrogen and water.

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