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(54) Title: METHODS FOR DISTRIBUTING CATALYST IN COUNTER-CURRENT REACTORS AND METHODS FOR PROCESSING HYDROCARBONS

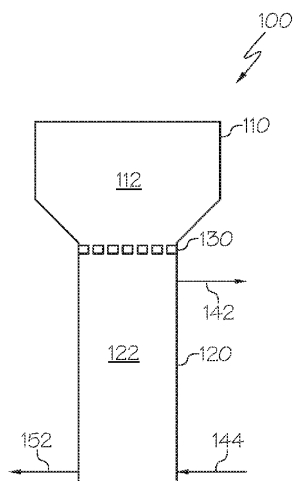


FIG. 1

(57) Abstract: Methods for distributing catalyst in a counter-current reactor may include passing the catalyst from a catalyst hopper to a perforated plate distributor; distributing the catalyst into a reaction zone of the counter-current reactor by passing the catalyst from a catalyst discharge zone, through the perforations of the perforated plate distributor, into the reaction zone, wherein the catalyst enters the perforations of the perforated plate distributor at a superficial velocity from 0.01 m/s to 10 m/s, and the superficial velocity is in a substantially downward direction; and passing a hydrocarbon feed stream into the reaction zone, wherein the catalyst moves in a substantially downward direction through the reaction zone, the hydrocarbon feed stream moves in a substantially upward direction through the reaction zone, and wherein contacting the catalyst with the hydrocarbon feed stream cracks one or more components of the hydrocarbon feed stream and forms a hydrocarbon product stream.

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