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(54) Title: FLUIDIZATION ENHANCERS FOR THE OXIDATIVE DEHYDROGENATION OF HYDROCARBONS

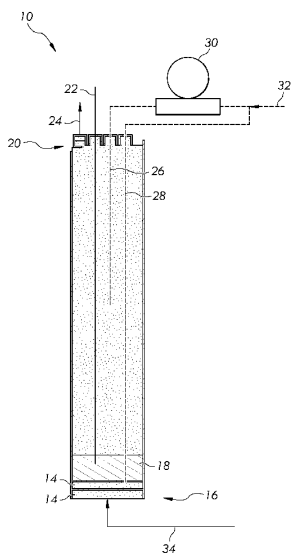


FIG. 2

(57) Abstract: A process for oxidative dehydrogenation of a hydrocarbon to produce an olefin and water may include contacting, in a fluidized bed, the hydrocarbon with a particulate material, which may include at least one oxygen transfer agent (OTA) and at least one fluidization enhancing additive. During at least a portion of contacting the hydrocarbon with the particulate material, the fluidized bed may be at a temperature at or above a melting point of one or more materials of the oxygen transfer agent. Further, during at least a portion of contacting the hydrocarbon with the particulate material, a surface of at least a portion of the OTA may comprise a molten layer. The fluidization enhancing additive may not undergo reduction in the fluidized bed during contacting the hydrocarbon with the particulate material and may be present in an amount that maintains sufficient fluidization of the particulate material.

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