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(54) Title: CATALYTIC ALLOY HYDROGEN SENSOR APPARATUS AND PROCESS

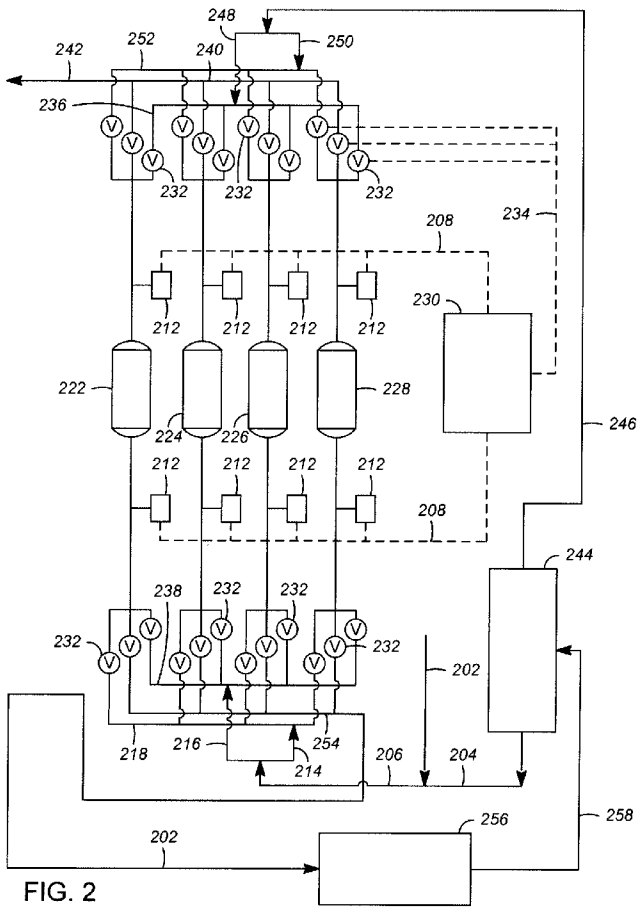


FIG. 2

(57) Abstract: A process for controlling a refinery or chemical process has been developed. The process comprises flowing a feed conduit (206) to a processing unit (222); operating on the feed stream to generate an effluent stream (242); flowing the effluent stream (242) away from the process unit; passing at least a portion of the feed stream or the effluent stream through a catalytic alloy hydrogen sensor (212) and generating a signal corresponding to the concentration of hydrogen present in either the feed stream or the effluent stream; passing the signal to a display unit; and adjusting an operating parameter (232) of the process in response to at least the signal generated by the catalytic alloy hydrogen sensor (212). The display unit may be part of a computer (230) which automatically adjusts an operating parameter. The catalytic alloy hydrogen sensor (212) may be a palladium-nickel catalytic alloy hydrogen sensor.

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