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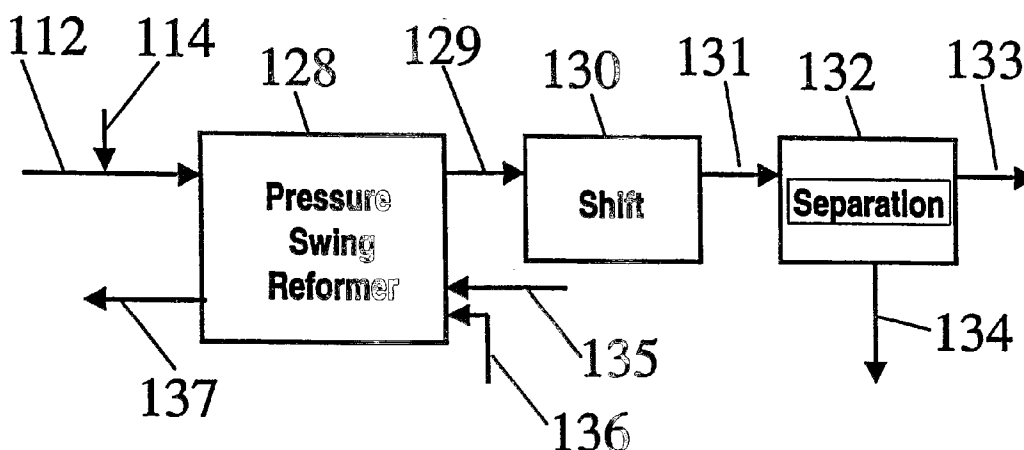
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(54) Title: HYDROGEN MANUFACTURE USING PRESSURE SWING REFORMING



(57) Abstract: The invention provides a method for generating high pressure hydrogen at improved thermal efficiencies. First a synthesis gas stream at a first pressure is produced in a pressure swing reformer (128). Next the synthesis gas stream is subjected to a high temperature water gas shift process (130) to produce a hydrogen enriched stream (131) from which high pressure hydrogen is obtained. Specific embodiments of the invention involve: regenerating the reformer at a pressure lower than the synthesis gas generation; operating the synthesis gas generation step at conditions sufficient to provide a syn gas stream at a temperature in the range used in the water gas shift reaction; and using pressure swing adsorption to separate the hydrogen.

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