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(54) Title: A METHOD FOR CO2 COMPRESSION AND LIQUEFACTION

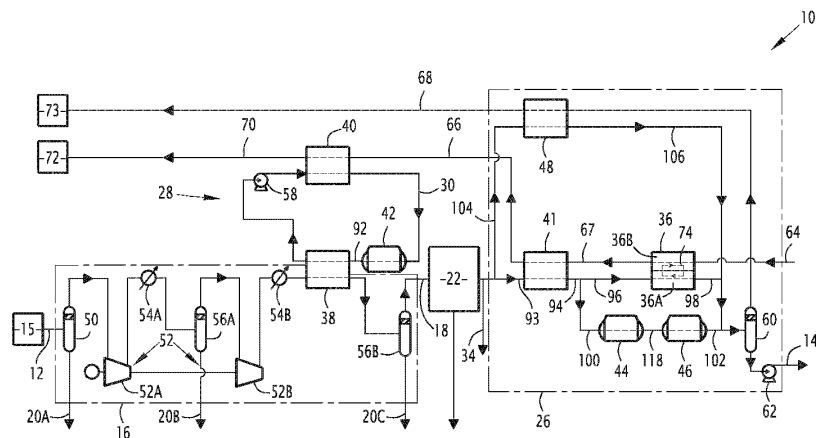


FIG.1

(57) Abstract: A method comprising: - obtaining a feed (12) comprising gaseous wet CO₂, - compressing said feed to obtain a compressed feed (18), - liquefying the dehydrated feed to obtain a CO₂ rich liquid (14). Liquefying comprises: - performing a heat exchange between at least a first portion (96) of the dehydrated feed and a cold fluid (64) in a first heat exchanger (36) to obtain a first stream (98) of CO₂ rich liquid and a partially heated gas (66), -obtaining the CO₂ rich liquid from at least the first stream, Compressing said feed comprises: - cooling the feed in a second heat exchanger (38) against a cooling stream (92) of a first refrigerant (30), - operating a first cooling cycle (28), in which the first refrigerant circulates and receives cold in a third heat exchanger (40) from the partially heated gas.

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