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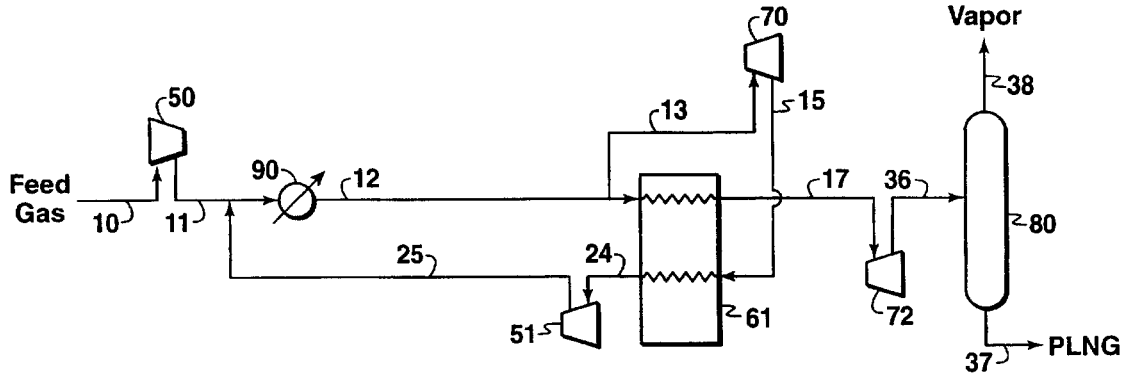
(54) Title: PROCESS FOR LIQUEFYING NATURAL GAS BY EXPANSION COOLING



(57) Abstract: This invention relates to process for liquefying a pressurized gas stream rich in methane. In a first step of the process, a first fraction (13) of a pressurized feed stream, preferably at a pressure above 11,000 kPa, is withdrawn and entropically expanded (70) to a lower pressure to cool and at least partially liquefy the withdrawn first fraction. A second fraction (12) of the feed stream is cooled by indirect heat exchange (61) with the expanded first fraction (15). The second fraction (17) is subsequently expanded (72) to a lower pressure, thereby at least partially liquefying the second fraction (17) of the gas stream. The liquefied second fraction (37) is withdrawn from the process as a pressurized product stream having a temperature above -112 °C and a pressure at or above its bubble point pressure.

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