

METHOD OF COOLING USING EXTENDED BINARY REFRIGERATION SYSTEM

ABSTRACT

A method of cooling using an extended binary refrigerant system containing methane and a C3 hydrocarbon such as propylene and/or propane is disclosed. The extended binary refrigerant from a compressor final discharge is separated into a methane-rich vapor fraction and at least one C3 rich liquid fraction so as to provide various temperatures and levels of refrigeration in various heat exchange stages. The method and corresponding refrigeration system can be utilized in plants utilizing low pressure or high pressure demethanizers.

Figure 1.