ABSTRACT OF THE DISCLOSURE

NITROGEN REFRIGERATED PROCESS FOR THE RECOVERY OF C_2^+ HYDROCARBONS

C_2 and C_3 hydrocarbons, particularly ethylene and propylene, are recovered from refinery or petrochemical plant gas mixtures by cooling and fractionating a feed gas mixture containing these hydrocarbons and lighter components. Refrigeration for the process is provided by a closed-loop gas expander refrigeration process cycle which preferably uses nitrogen as the recirculating refrigerant. Cooling and fractionation may be effected in a dephlegmator.

(Figure 1)