

ABSTRACT OF THE DISCLOSURE

**TITLE OF INVENTION: PRECOOLING FOR ETHYLENE RECOVERY IN
DUAL DEMETHANIZER FRACTIONATION SYSTEMS**

Ethylene-containing feed gas to a cryogenic ethylene recovery system is cooled and condensed, prior to fractionation, by an improved method which utilizes a combination of one or more partial condensers followed by one or more dephlegmators. The improved method simplifies heat exchange equipment and reduces capital cost, and is particularly suited for processing a pressurized precooled feed gas from ethane cracking which contains less than about 1 mole% of propane plus propylene.

Figure 1 of the drawings should accompany the abstract when published.

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