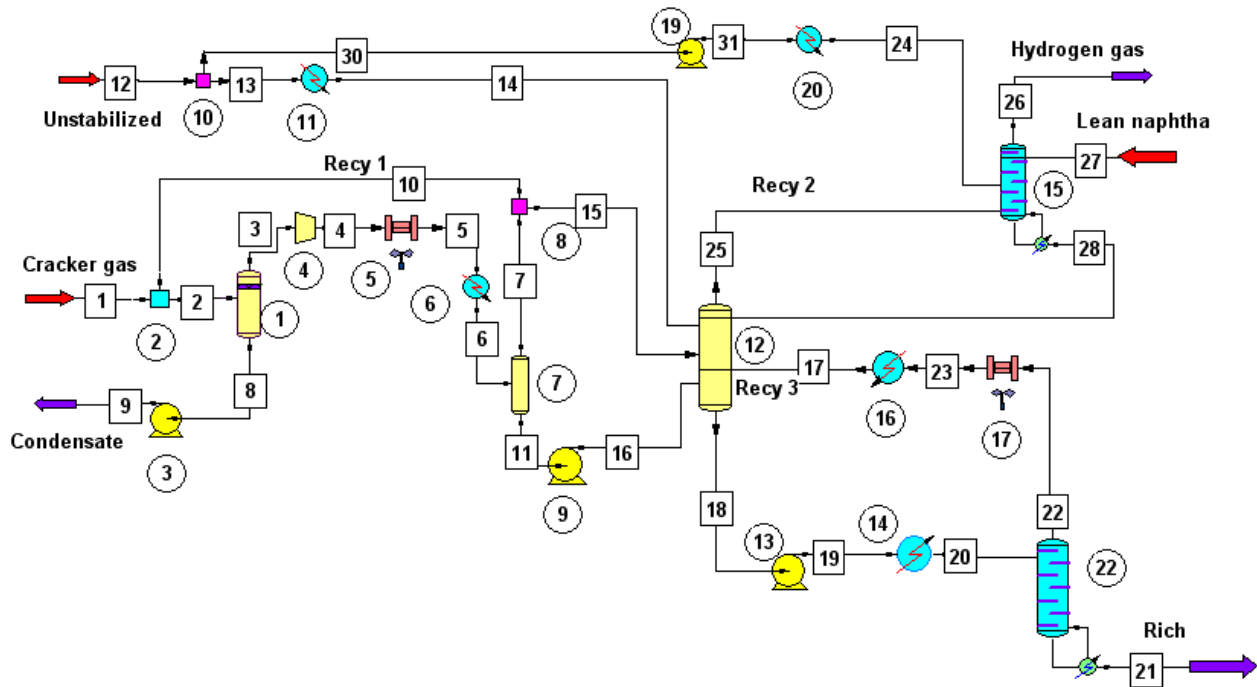


Cat-Cracker Gas Separation



DESCRIPTION:

This is a simulation of an existing process. Cracker gas is being mixed with recycled gas stream, flashed, compressed to 12 kG/cm² G, cooled by air cooler and an aftercooler, and flashed again. Net gas and liquid from the compression stage are fed to a collector, which is a central point of the operation from the balance point. Off-gas of this collector is sent to the absorber, which is also fed with both stabilized (lean) and unstabilized naphtha. The top product of the absorber is hydrogen-enriched gas.

The bottoms are transferred to the central collector. The liquid product of the collector goes to the reboiled stripper (desorber), where the bottoms leave system as rich naphtha, and the top product returns to the collector. This flowsheet illustrates CHEMCAD's usefulness in modeling multi-recycled processes, applications of the Tower model for absorption, and desorption, as well as usage of special thermodynamic coefficients for ethylene-propylene systems.