

SEPARATION OF LIGHT GASES FROM HALOGENS

ABSTRACT

5 A process is provided for separating one or more light gases from bromine or chlorine using one or more physical separations and contact with a chemical scrubber to recover additional halogen. In one aspect, the process comprises (a) providing a feed of halogen containing one or more light gases to a distillation column or flash vaporizer; (b) operating the distillation column or flash vaporizer to
10 separate the feed into (i) a first liquid containing a major amount of halogen and no more than a minor amount of light gas(es), and (ii) a first vapor containing a major amount of light gas(es) and no more than a minor amount of halogen; and (c) providing the vapor to a chemical scrubber to recover halogen from the vapor.

15 Figure 1