This Sheet Has Been Replaced

ABSTRACT

PRODUCTION OF NITROGEN OF ULTRA-HIGH PURITY

Air is rectified in a rectification column 24 to produce at its top a gaseous nitrogen fraction relatively to produce a rich in light elements, such as neon, helium and hydrogen. A stream of this gaseous fraction is then partially condensed within a condenser 32 and separated into liquid and vapour phases within a phase separator 48. The liquid phase is lean in the light elements and the vapour phase is rich in the light elements. The liquid phase is removed from the bottom of the phase separator 48 and is introduced into the column 24 as reflux. As the reflux descends from tray to tray it is stripped of light elements. A product stream containing ultra-high purity nitrogen is withdrawn as a liquid stream 62 from the column 24 after suitable stripping of the reflux. The product stream 62 can be further purified by stripping within a stripper column 68.