

Title (en)  
Methods and apparatus for the low temperature air separation

Title (de)  
Verfahren und Vorrichtungen zur Tieftemperaturzerlegung von Luft

Title (fr)  
Procédés et dispositifs de séparation d'air à basse température

Publication  
**EP 0716280 A3 19970416 (DE)**

Application  
**EP 95118951 A 19951201**

Priority  
DE 4443190 A 19941205

Abstract (en)  
[origin: EP0716280A2] Process for low temp. decomposition of air comprises cooling a 1st partial stream (101) of compressed and purified air (1), passing to a main rectification system (4) and decomposing into liq. O<sub>2</sub> and gaseous N<sub>2</sub>. In a 1st condenser-evaporator (2), a liq. fraction (20, 29) is vaporised in indirect heat exchange with a 2nd stream (202, 203) of compressed and purified air. The 2nd partial stream is partially condensed in this exchange and an argon-contg. oxygen fraction (22) from the rectification system (4) is fed to a raw argon column (24) where it is sepd. into raw argon and an oxygen rich liq.. Vaporous raw argon from the head of the column (24) is liquefied by indirect heat exchange with at least part of the 2nd stream (203) downstream of the 1st condenser-evaporator in a 2nd condenser-evaporator (27), where at least a part of the 2nd stream evaporates. Virtually the entire cold required for the liquefaction of raw argon is produced by the evapn. of the second stream. Also claimed is a process as above where at least a part of the 2nd partial stream (205) evaporated in the 2nd condenser-evaporator is fed to the rectification system without further pressure increase. Also claimed are devices to carry out the above processes.

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