

Title (en)  
Air separation.

Title (de)  
Lufttrennung.

Title (fr)  
Séparation de l'air.

Publication  
**EP 0376464 A1 19900704 (EN)**

Application  
**EP 89312011 A 19891120**

Priority  
GB 8828134 A 19881202

Abstract (en)  
A gaseous feed of oxygen containing both light and heavy impurities is introduced through inlet 50 into a first liquid-vapour contact column 10 thereby producing a first fraction having an enhanced concentration of heavy impurities and a second fraction having a reduced concentration of heavy impurities. A gaseous first stream of the second fraction is condensed in a condenser 54 and returned to the column 10 as reflux through inlet 56. A second stream of the second fraction is fed into a second liquid-vapour contact column 12 having a reboiler 64 in which light impurities are stripped from the feed by ascending vapour. The second stream is introduced into the column 12 at a level above which there are liquid-vapour contact surfaces whereby there is produced at the top of the column 12 a fraction having a substantially greater concentration of light impurities than the feed to that column. A portion of this fraction is condensed in condenser 66 and used to provide reflux for the column 12, while another such portion is subjected to further fractionation in columns 2 and 8 to produce an argon product.

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**F25J 3/04; F25J 3/08**

IPC 8 full level  
**F25J 3/04** (2006.01)

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Citation (search report)  
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• [XP] US 4867772 A 19890919 - EYRE DOUGLAS V [US]  
• [X] CHEMICAL ABSTRACTS, vol. 94, no. 6, February 1981, abstract no. 33046p, Columbus, Ohio, US; "Producing high-purity oxygen", & SU-A-757 817 (S.S. BUDNEVICH et al.)

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**EP 89312011 A 19891120**; AU 4554689 A 19891124; CA 2004368 A 19891201; DK 607789 A 19891201; GB 8828134 A 19881202; JP 31308689 A 19891201; ZA 899075 A 19891128