

Title (en)
METHOD FOR OPERATING AN AIR SEPARATION PLANT, HAVING A DISTILLATION COLUMN SYSTEM, A HEAT EXCHANGER AND AN ADSORBER, AND AIR SEPARATION PLANT

Title (de)
VERFAHREN ZUM BETREIBEN EINER LUFTZERLEGGUNGSANLAGE MIT EINEM DESTILLATIONSSÄULENSYSTEM, EINEM WÄRMETAUSCHER UND EINEM ADSORBER SOWIE LUFTZERLEGGUNGSANLAGE

Title (fr)
PROCÉDÉ DE FONCTIONNEMENT D'UNE INSTALLATION DE SÉPARATION D'AIR, COMPRENNANT UN SYSTÈME DE COLONNE DE DISTILLATION, UN ÉCHANGEUR DE CHALEUR ET UN ADSORBEUR, ET INSTALLATION DE SÉPARATION D'AIR

Publication
EP 4070023 A1 20221012 (DE)

Application
EP 20812219 A 20201119

Priority
• EP 19020677 A 20191206
• EP 2020025521 W 20201119

Abstract (en)
[origin: WO2021110285A1] The invention relates to a method for operating an air separation plant (100), which comprises: a distillation column system (110); a heat exchanger (1); and an adsorber (103), wherein, in a first time period, a first operating mode is carried out and, in a second time period following the first time period, a second operating mode is carried out. According to the invention, in a third time period between the second time period and the first time period, a third operating mode is carried out, in which third operating mode compressed air is at least partially freed of water and carbon dioxide in the adsorber (103) and at least part of said compressed air is cooled in the heat exchanger (1), an air product is removed from the distillation column system (110) and at least part of said air product is heated in the heat exchanger (1), and an adjustable proportion of the compressed air cooled in the heat exchanger (1) or an adjustable amount of additional compressed air that is at least partially freed of water and carbon dioxide in the adsorber (103) but is not cooled in the heat exchanger (1) is fed to the air product before the air product is heated in the heat exchanger (1). The present invention further relates to a corresponding air separation plant (100).

IPC 8 full level
F25J 1/00 (2006.01)

CPC (source: EP US)
F25J 3/0409 (2013.01 - EP US); **F25J 3/04187** (2013.01 - EP); **F25J 3/04296** (2013.01 - EP); **F25J 3/04412** (2013.01 - EP);
F25J 3/04678 (2013.01 - EP); **F25J 3/04727** (2013.01 - EP); **F25J 3/04787** (2013.01 - EP US); **F25J 3/04818** (2013.01 - EP);
F25J 2245/40 (2013.01 - EP); **F25J 2280/20** (2013.01 - EP); **Y02C 20/40** (2020.08 - EP)

Citation (search report)
See references of WO 2021110285A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2021110285 A1 20210610; CN 114729780 A 20220708; EP 4070023 A1 20221012; US 2023003446 A1 20230105

DOCDB simple family (application)
EP 2020025521 W 20201119; CN 202080081839 A 20201119; EP 20812219 A 20201119; US 202017756747 A 20201119