

Title (en)
METHOD AND SYSTEM FOR LOW-TEMPERATURE AIR SEPARATION

Title (de)
VERFAHREN UND ANLAGE ZUR TIEFTEMPERATURZERLEGUNG VON LUFT

Title (fr)
PROCÉDÉ ET INSTALLATION DE DÉCOMPOSITION D'AIR À BASSE TEMPÉRATURE

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Application
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Abstract (en)
[origin: WO2020244801A1] The invention relates to a method for low-temperature air separation, in which an air separation system (100-500) with a column system (10) is used which has a first column (11), a second column (12), a third column (13) and a fourth column (14), wherein fluid from the first column (11) is fed at least into the second column (12), fluid from the second column (12) is fed at least into the third column (13), fluid from the third column (13) is fed at least into the fourth column (14), and fluid from the fourth column (14) is fed at least into the third column (13), and wherein the fluid fed from the third column (13) into the fourth column (14) comprises at least part of a side flow which is drawn from the third column (13) and has a lower oxygen content and a higher argon content than the third sump liquid. According to the invention, a return liquid is formed by condensing head gas from the first column (11) and is fed back flowingly to the first column (11). In order to condense the head gas from the first column (11), a liquid cooling flow is provided and is evaporated or partially evaporated in indirect heat exchange with the head gas, and gas formed during the evaporation or partial evaporation of the cooling stream is expanded to a pressure in the second pressure range such that work is performed and is fed into the second column (12). The present invention also relates to a corresponding system (100-500).

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