Title (en)

METHOD AND FACILITY FOR PURIFYING A FEED GAS STREAM COMPRISING AT LEAST 90% CO2

Title (de)

VERFAHREN UND ANLAGE ZUR REINIGUNG EINES EINSATZGASSTROMS MIT MINDESTENS 90 % CO2

Title (fr)

Procédé et Installation de purification d'un flux gazeux d'alimentation comprenant au moins 90% de CO2

Publication

EP 3664917 A1 20200617 (FR)

Application

EP 18773788 A 20180713

Priority

- FR 1757639 A 20170810
- FR 2018051788 W 20180713

Abstract (en)

[origin: WO2019030437A1] A method for purifying a feed gas stream comprising at least 90% CO2 on a dry basis, at least 20% relative humidity and at least one impurity chosen from the chlorinated, nitrated, fluorinated or sulfur compounds, comprising the following successive steps: a) a step of subjecting the feed gas stream to a catalytic oxidation in such a way as to produce a gas stream comprising at least one acid impurity chosen from among HCl, NOx, SOx or hydrofluoric acid; b) a step of maintaining the temperature of the gas stream coming from step a) above the highest value between the dew point of water and the dew point of the acid or acids contained in the gas downstream of the catalytic process; c) a step of removing at least a part of the acid impurities by placing the gas stream coming from step b) in contact with at least one corrosion-resistant heat exchanger in such a way as to condense the acid compounds while regulating the temperature of the gas stream exiting below the dew point of water; and d) a step of separating the acid condensates of the gas stream coming from step c) by means of a corrosion-resistant separator in such a way as to produce a CO2 enriched gas stream.

IPC 8 full level

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CPC (source: EP RU US)

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Citation (search report)

See references of WO 2019030437A1

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DOCDB simple family (application)

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