

Title (en)

METHOD OF REMOVING CO₂ FROM A CONTAMINATED HYDROCARBON STREAM

Title (de)

VERFAHREN ZUR ENTFERNUNG VON CO₂ AUS EINEM VERUNREINIGTEN KOHLENWASSERSTOFFSTROM

Title (fr)

PROCÉDÉ D'ÉLIMINATION DE CO₂ D'UN COURANT HYDROCARBONÉ CONTAMINÉ

Publication

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Application

EP 16805787 A 20161201

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Abstract (en)

[origin: WO2017093387A1] The present invention provides a method to separate CO₂ from a contaminated hydrocarbon-containing stream. The method comprises obtaining a multiphase contaminated hydrocarbon-containing stream (100) containing at least a vapour phase, a liquid phase and a solid phase, creating a slurry stream (120) from the multiphase stream. The slurry stream is fed to a crystallization chamber comprising CO₂ seed particles. A liquid hydrocarbon stream (170) is obtained from the crystallization chamber (91) and a concentrated slurry (140) is obtained. The concentrated slurry (140) is removed from the crystallization chamber (91) by means of an extruder (142), thereby obtaining solid CO₂. A feedback stream (141) is obtained from the solid CO₂ comprising CO₂ seed particles having an average size greater than 100 micron. The feedback stream (141) is passed into the crystallization chamber (91).

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