Title (en)

THERMAL SEPARATING METHOD

Title (de)

THERMISCHES TRENNVERFAHREN

Title (fr)

PROCÉDÉ DE SÉPARATION THERMIQUE

Publication

EP 2827961 A1 20150128 (DE)

Application

EP 13707397 A 20130305

Priority

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- US 201261613024 P 20120320
- EP 2013054391 W 20130305

Abstract (en)

[origin: DE102012204436A1] Thermal separation method between at least a gas ascending in the separating column and at least a liquid containing at least a (meth)acrylic-monomer descending in the separating column, accomplished in a separation effective installation containing separating columns, where at least a part of separation-effective installation is at least a series of at least two structurally identical cross-flow mass transfer trays, which comprise at least one outlet shaft (1), through which liquid descends through the respective cross-flow mass transfer trays, is claimed. Thermal separation method between at least a gas ascending in the separating column and at least a liquid containing at least a (meth)acrylic-monomer descending in the separating column, accomplished in a separation effective installation containing separating columns, where at least a part of separation-effective installation is at least a series of at least two structurally identical cross-flow mass transfer trays, which comprise at least one outlet shaft (1), through which liquid descends through the respective cross-flow mass transfer trays, is claimed. The cross-flow mass transfer trays are arranged one above the other within the at least one series in the separating column in such a manner that: the two cross-flow mass transfer trays are rotated from top to bottom in the separating column around 180[deg] around the column longitudinal axis, where their outlet shafts are present on opposing sides of the separating column; the at least one outlet shaft of the two successive upper consecutive cross-flow mass transfer trays form at least a supply shaft for the cross-flow mass transfer trays located under it, through which the liquid descends from upper cross-flow mass transfer trays as at least an inlet on the cross-flow mass transfer trays located under it; the liquid descending through the at least an inlet shaft from upper to lower cross-flow mass transfer trays, over which (entire) lower cross-flow mass transfer trays are viewed, flows crosswise from the at least an inlet on the lower cross-flow mass transfer trays to the at least one outlet shaft of the lower cross-flow mass transfer trays; and passage openings (2) find between the at least an inlet on the lower cross-flow mass transfer trays and the at least one outlet shaft of the lower cross-flow mass transfer trays, through which the at least one gas ascends through the lower cross-flow mass transfer trays. At least within one of the at least one series of identical cross-flow mass transfer trays of each of two successive cross-flow mass transfer trays in the direction of the cross flow from its at least one inlet to its at least one outlet shaft, still behind at least one outlet shaft, at least one passage opening for the at least one ascending gas exhibits. Independent claims are also included for: (1) a circular, passage openings exhibiting mass transfer trays, which comprise at least one outlet shaft with outflow opening only in one half and no inlet surface free at passage openings in the half lying opposite to the first half, where the passage openings on the basis of the center of gravity of the outflow opening of the at least one of the outlet shaft not only in the bottom surface located in the direction of the oppositely lying half before the at least one drain shaft, but also in the bottom surface of the passage openings for gas ascending in the working mode, located in opposing direction behind the at least one outlet shaft; and (2) a series of at least two structurally identical cross flow mass transfer trays, contained in a separating column.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

See references of WO 2013139590A1

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