

Title (en)

OPTIMISED PROCESS FOR THE REGENERATION OF STREAMS OF STEAM-BASED VAPOURS

Title (de)

OPTIMIERTES VERFAHREN ZUR AUFARBEITUNG VON WASSERDAMPFBASIERTEN BRÜDENSTRÖMEN

Title (fr)

PROCEDE OPTIMISE DE RETRAITEMENT DE COURANTS DE BUEES A BASE DE VAPEUR D'EAU

Publication

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Application

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Abstract (en)

[origin: US5785859A] PCT No. PCT/EP95/00228 Sec. 371 Date Oct. 18, 1996 Sec. 102(e) Date Oct. 18, 1996 PCT Filed Jan. 23, 1995 PCT Pub. No. WO95/21010 PCT Pub. Date Aug. 10, 1995The invention relates to an optimized process for conditioning a stream of superheated steam laden with steam-volatile organic components by condensation of the steam phase with recovery of the heat of condensation and at least partial separation of the steam-volatile organic components from the water-based condensate. The process operates with a first heat exchange stage in which the continuously introduced vapor stream is combined with a circulated and cooled liquid stream of condensed vapors. In a following second energy transfer stage, heat is indirectly removed from the liquid stream thus heated. A sidestream is removed from the liquid circuit of the condensed vapors and subjected to separation in a membrane process while the rest of the liquid stream is returned to the first stage. The invention also relates to the use of this working principle for industrial applications, more particularly for the separation of organic mixtures by superheated steam and/or the drying of water-based useful-material preparations with superheated steam as the drying gas.

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