

Title (en)

METHOD AND APPARATUS FOR EVAPORATING HYDROGEN HALIDE AND WATER FROM BIOMASS HYDROLYZATES CONTAINING HALOGEN ACID

Title (de)

VERFAHREN UND APPARATUR ZUR ABDAMPFUNG VON HALOGENWASSERSTOFF UND WASSER AUS HALOGENSAUREN BIOMASSEHYDROLYSATEN

Title (fr)

PROCÉDÉ ET APPAREIL POUR L'ÉVAPORATION D'HALOGÉNURE D'HYDROGÈNE ET D'EAU À PARTIR D'HYDROLYSATS DE BIOMASSE D'ACIDE HALOGÉNOHYDRIQUE

Publication

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Application

**EP 11770676 A 20110712**

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Abstract (en)

[origin: WO2012013177A2] The invention relates to a method and apparatus with the aid of which hydrogen halide and water can be removed from biomass hydrolyzates containing halogen acid. Advantages are the compactness of the apparatus, the effectiveness in evaporation, and the large number of design possibilities, which allow the apparatus to be adapted to the particular purpose. The core of the invention is an evacuated container, which is continuously supplied with a heat-transfer medium and which is completely filled with the heat-transfer medium in a part (evaporation chamber). In said evaporation chamber, the biomass hydrolyzate is likewise continuously introduced. In the container, heat is transferred from the heat-transfer medium to the hydrolyzate, wherein hydrogen halide and water are continuously evaporated. The remaining hydrolyzate particles are continuously discharged with the cooled heat-transfer medium and continuously removed by means of the heat-transfer medium and continuously separated from said heat-transfer medium. The invention can be versatilely designed in regard to the apparatus. The invention described can also be used to treat other mixtures or solutions for the purpose of evaporation. The following is fundamental in regard to the heat-transfer medium used: the heat-transfer medium is chemically inert with respect to the introduced substances; the heat-transfer medium is poorly miscible with the introduced substances only in such a manner that accumulations do not progress unhindered (equilibrium is established) and the sustained presence of the accumulations does not lead to such a chemical modification of the heat-transfer medium that the heat-transfer medium cannot be replaced in an economical manner by partially exchanging same.

IPC 8 full level

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Citation (search report)

See references of WO 2012013177A2

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