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(81) 指定国 (除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT,

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(54) Title: METHOD AND DEVICE FOR RECOVERING ETHYLENE DURING PROCESS FOR PRODUCING VINYL ACETATE

(54) 发明名称: 醋酸乙烯生产过程乙烯回收方法及装置

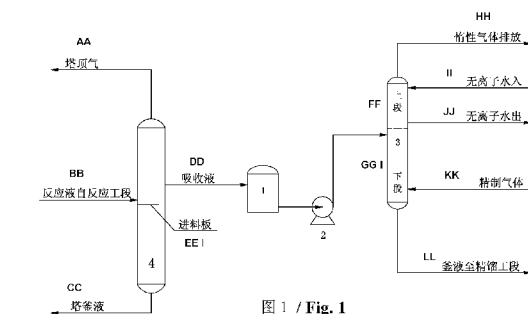


图 1 / Fig. 1

AA OVERHEAD GAS
BB REACTION SOLUTION FROM REACTION STAGE
CC TOWER KETTLE SOLUTION
DD ABSORBENT SOLUTION
EE FEEDING PLATE
FF UPPER SECTION

GG LOWER SECTION
HH INERT GAS DISCHARGE
II DEIONIZED WATER INLET
JJ DEIONIZED WATER OUTLET
KK REFINED GAS
LL KETTLE SOLUTION TO THE RECTIFICATION STAGE

(57) Abstract: Disclosed are a method and a device for recovering ethylene during the process for producing vinyl acetate, wherein a double solvent absorption method composed of an absorbent solution and deionized water is used: introducing an outlet stream as an absorbent solution from the upper section of the feeding plate in an acetic acid tower during the rectification stage of vinyl acetate production; delivering same to the top of the lower section of the ethylene recovery tower by a delivery pump; charging refined gas from the tower kettle of the ethylene recovery tower, with the absorbent solution contacting with the refined gas in a counter-current; sending the absorption kettle solution to the rectification stage for treatment; the gas continuing to rise to the upper section of the ethylene recovery tower and contacting with the deionized water introduced from the top of the tower in a counter-current; absorbing and removing the acetic acid therein; and discharging the residual inert gas, such as N₂, from the top of the ethylene recovery tower. The absorbent solution is a mixture of acetic acid, vinyl acetate and water, and comprises by weight percentage, 50-85% acetic acid, 5-30% vinyl acetate and 5-20% water.

(57) 摘要:

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- (84) **指定国** (除另有指明, 要求每一种可提供的地区保护): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), 欧亚 (AM, AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,

根据细则 4.17 的声明:

- 发明人资格(细则 4.17(iv))

本国际公布:

- 包括国际检索报告(条约第 21 条(3))。

一种醋酸乙烯生产过程乙烯回收方法及装置, 采用吸收液和无离子水组成的双溶剂吸收法: 自醋酸乙烯生产精馏工段的醋酸塔进料板上段引出流股作为吸收液, 由吸收液输送泵送至乙烯回收塔下段顶部, 精制气由乙烯回收塔塔釜通入, 吸收液与精制气逆流接触; 吸收釜液送至精馏工段处理, 气体继续上升至乙烯回收塔上段与塔顶部通入的无离子水逆流接触, 吸收脱除其中的醋酸; 剩余的 N₂ 等惰性气体由乙烯回收塔塔顶排出。所述的吸收液为乙酸、醋酸乙烯及水的混合物, 重量百分比为乙酸 50-85%、醋酸乙烯 5-30% 和水 5-20%。