

The invention relates to industrial production of dehydrated alcohol. Proposed method of dehydrating water/alcohol mix comprises (i) the stage of evaporation and overheating of aforesaid mix to the temperature sufficient to maintain its vaporous state during stage (ii). The latter consists in adsorption performed by feeding vaporous water/alcohol mix produces at stage (i) onto molecular sieve to cause water adsorption on said sieve to allow producing dehydrated alcohol vapors. Then comes stage (iii) of condensing dehydrated alcohol vapors produced at stage (ii) to recover energy. Note here that evaporation and/or overheating of said water/alcohol mix at stage (i) is performed partially by energy recovered at aforesaid stage (iii). The invention covers also the device that allows implementing above described method. The invention allows to optimize use of primary energy.