

The invention refers to the dairy industry, in particular to a process for lactic bacteria cultivation.

The process for lactic bacteria cultivation includes preparation of the culture medium, containing milk sterilized and cooled up to the sowing temperature, addition into the culture medium of the lactic bacteria culture, cultivation and separation thereof. For sowing are used lactic bacteria, grown onto a nutrient medium, consisting of yoghurt: pasteurized milk or of sour milk: fresh pasteurized cow milk, taken in the volume ratio of 1:10, and lyophilized, which are added into the culture medium by agitation at constant temperature, then the culture medium, according to the first variant, is immobilized into a porous matrix, cultivation of the lactic bacteria is carried out at the temperature of 36...40°C during 2...3 hours with removal of the lactic acid formed by continuous elution into mobile aqueous phase which is separated from the matrix with the immobilized culture medium and after separation of the lactic acid from the aqueous phase it is returned into the culture medium.

The process for lactic bacteria cultivation, according to the second variant, includes introduction into the culture medium of a basic agent with food purity degree, insoluble therein, which in the cultivation period fixed continuously the formed lactic acid into the culture medium by realization of the continuous cycle of its introduction, removal and regeneration and of extraction and separation of the lactic acid.

The process for lactic bacteria cultivation, according to the third variant, includes immersion into the culture medium of a solid insoluble matrix from anion-exchange resins, completed with exchangeable OH⁻ groups of R⁺OH⁻ type, with which, in the cultivation period by realization of the continuous cycle of immersion, removal and regeneration of the resins into a sodium hydroxide solution, it is continuously fixed the lactic anion, and with the free OH⁻ group it is realized the concomitant neutralization of the proton with the formation of the aqueous phase which is separated from the culture medium with subsequent extraction and separation of the lactic acid.

Claims: 8

Fig.: 3