

Title (en)
PROCESS FOR ENHANCING YIELD DURING THE MANUFACTURE OF LACTOSE (I)

Title (de)
VERFAHREN ZUR STEIGERUNG DER AUSBEUTE BEI DER LACTOSEHERSTELLUNG (I)

Title (fr)
PROCÉDÉ D'AUGMENTATION DU RENDEMENT POUR LA FABRICATION DE LACTOSE (I)

Publication
EP 2743356 B1 20160309 (DE)

Application
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Priority
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Abstract (en)
[origin: EP2743356A1] Improving the yield during the production of crystalline alpha -lactose, comprises: (a) adjusting an aqueous lactose solution to a temperature of 62-67[deg] C; (b) cooling the solution to 20-30[deg] C; (c) maintaining the solution at this temperature for a period of 0.5-5 hours, (d) subsequently re-heating the solution to 35-40[deg] C; (e) maintaining the solution at this temperature for a period of 0.5-5 hours; (f) subsequently cooling the solution to 10[deg] C; and (g) optionally separating the precipitated alpha -lactose crystals from the mother liquor. Independent claims are also included for: (1) mother liquor comprising 15-20 wt.% alpha -lactose; and (2) producing crystalline alpha -lactose, comprising (i) subjecting whey to a separation process in which a protein-rich and a lactose-rich fraction is obtained, (ii) subjecting the lactose-rich fraction (optionally after concentrating the main flow) to demineralization in which slowly soluble salts are precipitated, (iii) cooling the demineralized residue, optionally after further evaporation, until lactose precipitates are in crystalline form, (iv) separating the lactose crystals from the mother liquor and evaporating, and further adjusting the first mother liquor to a temperature of 62-67[deg] C, cooling the solution to 20-30[deg] C, maintaining the solution at this temperature for a period of 0.5-5 hours, subsequently re-heating the solution to 35-40[deg] C, maintaining the solution at this temperature for a period of 0.5-5 hours, subsequently cooling the solution to 10[deg] C, and optionally separating the precipitated alpha -lactose crystals from the second mother liquor.

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