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(54) Title: METHOD FOR PREPARING 2-HYDROXY 4-METHYLTHIO BUTYRIC ACID USING A NITRILASE

(54) Titre: PROCEDE DE PREPARATION DE L'ACIDE 2-HYDROXY 4-METHYLTHIO BUTYRIQUE PAR UTILISATION D'UNE NITRILASE

(57) Abstract

The invention concerns a method for preparing 2-hydroxy 4-methylthio butyric acid and/or the ammonium salt of 2-hydroxy 4-methylthio butyric acid by enzymatic hydrolysis of 2-hydroxy 4-methylthio butyronitrile characterised in that: a) in a first step a biological material having nitrilase activity is prepared, b) in a second step it is immobilised, c) in a third step, 2-hydroxy 4-methylthio butyronitrile is brought in the presence of the immobilised biological material, for obtaining the ammonium salt of 2-hydroxy 4-methylthio butyric acid, d) in a fourth step, optionally, the salt obtained in step c) is transformed into the corresponding acid, and e) in a fifth step, the product resulting from step c) or d) is concentrated.

(57) Abrégé

Cette invention a pour objet un procédé de préparation de l'acide 2-hydroxy 4-méthylthio butyrique et/ou du sel d'ammonium de l'acide 2-hydroxy 4-méthylthio butyrique par hydrolyse enzymatique du 2-hydroxy 4-méthylthio butyronitrile caractérisé en ce que: a) dans une première étape on prépare un matériel biologique ayant une activité nitrilase, b) dans une deuxième étape, on l'immobilise, c) dans une troisième étape, on met en présence le 2-hydroxy 4-méthylthio butyronitrile avec le matériel biologique ainsi immobilisé, pour obtenir le sel d'ammonium de l'acide 2-hydroxy 4-méthylthio butyrique, d) dans une quatrième étape, éventuellement, on convertit le sel obtenu à l'étape c) en l'acide correspondant, et e) dans une cinquième étape, on concentre le produit obtenu à l'étape c) ou d).

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