

Title (en)

Process for the preparation of clavulinic acid and pharmaceutically acceptable salts from fermentation broths of Streptomyces sp.

Title (de)

Verfahren zur Gewinnung von Klavulinsäure und deren pharmazeutisch annehmbare Salze aus Fermentationskulturen von Streptomyces sp.

Title (fr)

Procédé de préparation de l'acide clavulinique et de ses sels pharmaceutiquement acceptables à partir de bouillons de fermentation de Streptomyces sp.

Publication

EP 0387178 B9 20020925 (EN)

Application

EP 90500023 A 19900228

Priority

ES 8900748 A 19890301

Abstract (en)

[origin: EP0387178A1] It comprises : (a) flocculation of the culture broth using an inorganic electrolyte as a coagulation agent along with an organic polyelectrolyte as a flocculation coadjuvant; (b) purification of the cited acid contained in the culture broth, once flocculated and decanted, by formation, as stable intermediate products, of salts derived from primary, secondary and tertiary amines; (c) formation of pharmaceutically acceptable salts of the active principle. The cited new process is useful due to its inhibitory activity of beta -lactamases and its marked synergic effect when it is associated with other beta -lactamic antibiotics of the type of penicillin and cephalosporins.

IPC 1-7

C12P 17/18; **C07D 498/04**

IPC 8 full level

C07D 503/00 (2006.01); **C12P 17/18** (2006.01)

CPC (source: EP)

C07D 503/00 (2013.01); **C12P 17/188** (2013.01)

Cited by

US5821364A; JPH08511010A; EP0562583A1; US5859238A; US5741903A; AT475U1; CN1055694C; US5760218A; GB2282810A; GB2282810B; CN105384758A; US5786351A; MD1738F2; CN108546269A; EP0719778A1; US5719277A; CN1041933C; AT1446U1; FR2688506A1; JPH0641143A; AU659282B2; AU714017B2; US6133441A; CN1090636C; AT1447U1; EP0729961A1; US5726170A; AP749A; WO9620199A2; EP0699682A1; GB2287025A; GB2287026A; DE4345286A1; GB2287026B; DE4345311C1; JPH08157480A; GB2287025B; CN1036592C; CN1037967C; AP471A; AP473A; AP474A; WO9325557A1; WO0004028A1; USH2158H; WO9718216A1; WO9626944A1; WO9421647A1; WO9422873A1; KR100537732B1; EP0941229B1; EP0672669B1

Designated contracting state (EPC)

AT BE CH DE DK FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

EP 0387178 A1 19900912; **EP 0387178 B1 19970102**; **EP 0387178 B2 20010418**; **EP 0387178 B9 20020925**; AT E147103 T1 19970115; DE 69029527 D1 19970213; DE 69029527 T2 19970724; DE 69029527 T3 20011108; DK 0387178 T3 19970616; DK 0387178 T4 20010730; ES 2010143 A6 19891016; GR 3022981 T3 19970630; PT 93313 A 19901107; PT 93313 B 19980630

DOCDB simple family (application)

EP 90500023 A 19900228; AT 90500023 T 19900228; DE 69029527 T 19900228; DK 90500023 T 19900228; ES 8900748 A 19890301; GR 970400657 T 19970331; PT 9331390 A 19900301