



(12) **CORRECTED EUROPEAN PATENT SPECIFICATION**

(15) Correction information:
Corrected version no 1 (W1 B1)
Corrections, see
Bibliography INID code(s) 72

(48) Corrigendum issued on:
27.06.2018 Bulletin 2018/26

(45) Date of publication and mention
of the grant of the patent:
16.05.2018 Bulletin 2018/20

(21) Application number: **12816393.8**

(22) Date of filing: **13.12.2012**

(51) Int Cl.:
C07D 207/28 ^(2006.01) **A61K 8/49** ^(2006.01)
B01J 27/24 ^(2006.01) **C11D 1/04** ^(2006.01)
C11D 3/28 ^(2006.01) **A61Q 5/02** ^(2006.01)
A61Q 19/10 ^(2006.01) **C11D 1/10** ^(2006.01)
C11D 3/33 ^(2006.01) **A61K 31/49** ^(2006.01)

(86) International application number:
PCT/US2012/069528

(87) International publication number:
WO 2013/090591 (20.06.2013 Gazette 2013/25)

(54) **PROCESS FOR PREPARING ALKYL PYROGLUTAMIC ACIDS**

VERFAHREN ZUR HERSTELLUNG VON ALKYL PYROGLUTAMINSÄUREN

PROCÉDÉ DE PRÉPARATION D'ACIDES ALKYL PYROGLUTAMIQUES

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR

(30) Priority: **15.12.2011 US 201161576023 P**

(43) Date of publication of application:
13.08.2014 Bulletin 2014/33

(60) Divisional application:
18169946.3

(73) Proprietor: **Dow Global Technologies LLC**
Midland, MI 48674 (US)

(72) Inventors:
• **HENTON, Daniel, R.**
MI 48641 (US)
• **RAND, Cynthia, L.**
Midland, MI 48674 (US)
• **NG, Sze-sze**
Midland, MI 48642 (US)

(74) Representative: **Houghton, Mark Phillip et al**
Patent Outsourcing Limited
1 King Street
Bakewell, Derbyshire DE45 1DZ (GB)

(56) References cited:
EP-A1- 1 980 237 EP-A2- 1 002 525
WO-A1-2009/074518 WO-A2-03/103604
FR-A1- 2 931 065 US-A1- 2007 221 215

- **DATABASE WPI Week 200965 Thomson Scientific, London, GB; AN 2009-N93697 XP002694101, -& JP 2009 215267 A (SHISEIDO CO LTD) 24 September 2009 (2009-09-24) -& DATABASE CAPLUS [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; UENUMA, MIKIKO ET AL: "Skin preparations, parakeratosis inhibitors or skin pore shrinking agents, and rough skin treatment agents containing pyroglutamic acid derivatives", XP002694102, retrieved from STN Database accession no. 2009:1165857**
- **DATABASE WPI Week 200433 Thomson Scientific, London, GB; AN 2004-352668 XP002694103, -& JP 2004 123871 A (ASAHI KASEI KK) 22 April 2004 (2004-04-22)**

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

- FUSHIYA, SHINJI ET AL: "A new acidic amino acid from a Basidiomycetes, *Lactarius piperatus*", *CHEMICAL & PHARMACEUTICAL BULLETIN* , 36(4), 1366-70 CODEN: CPBTAL; ISSN: 0009-2363, 1988, XP002694104,

- AOYAGI, YASUO ET AL: "Constituents of a cationic peptide-rich fraction of *Lentinus edodes*", *AGRICULTURAL AND BIOLOGICAL CHEMISTRY* , 46(4), 987-91 CODEN: ABCHA6; ISSN: 0002-1369, 1982, XP002694105,