

(43) International Publication Date
17 April 2014 (17.04.2014)(10) International Publication Number
WO 2014/057078 A1

(51) International Patent Classification:

C07D 309/04 (2006.01) **C07D 239/26** (2006.01)
C07D 231/12 (2006.01) **C07C 233/66** (2006.01)
C07D 233/64 (2006.01) **C07C 233/73** (2006.01)
C07D 401/06 (2006.01) **C07C 233/78** (2006.01)
C07D 403/04 (2006.01) **C07D 211/26** (2006.01)
C07D 403/06 (2006.01) **C07D 213/40** (2006.01)
C07D 237/08 (2006.01) **C07D 213/61** (2006.01)
C07D 405/04 (2006.01)

(21) International Application Number:

PCT/EP2013/071247

(22) International Filing Date:

11 October 2013 (11.10.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/713,113 12 October 2012 (12.10.2012) US

(71) Applicant: **H. LUNDBECK A/S** [DK/DK]; Ottiliavej 9, DK-2500 Valby (DK).

(72) Inventors: **KILBURN, John Paul**; Kærsgårdvej 7, DK-4690 Haslev (DK). **RASMUSSEN, Lars Kyhn**; Højstrupvej 60, DK-2700 Brønshøj (DK). **JESSING, Mikkel**; Håndværkerhaven 27, 2.th., DK-2400 København NV (DK). **ELDEMENKY, Eman Mohammed**; 3 Harlan Ter Wayne, Passaic County, New Jersey 07470 (US). **CHEN, Bin**; 14 Oakmont Terrace, East Windsor, New Jersey 08520 (US). **JIANG, Yu**; 61 Aristotle Way, East

Windsor, New Jersey 08512 (US). **HOPPER, Allen T.**; 14 Moseman Avenue, Katonah, New York 10536 (US).

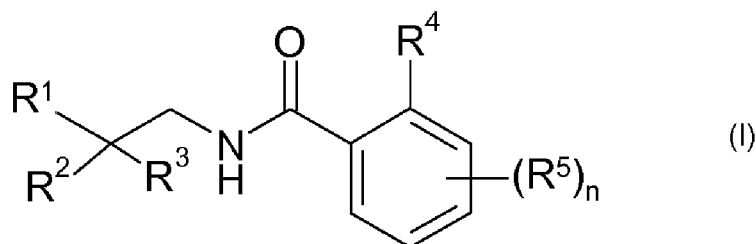
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: BENZAMIDES



(57) Abstract: The present application relates to compounds of formula (I), wherein R1 to R5 are as defined in claim 1, a pharmaceutical composition thereof and said compounds for use in the treatment of diseases related with the activity of P2X7 receptor.