



- (51) **International Patent Classification:**  
*C07D 487/04* (2006.01) *A61P 37/00* (2006.01)
- (21) **International Application Number:**  
PCT/EP2015/061307
- (22) **International Filing Date:**  
21 May 2015 (21.05.2015)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**  
14382192.4 27 May 2014 (27.05.2014) EP  
14382400.1 17 October 2014 (17.10.2014) EP  
14382401.9 17 October 2014 (17.10.2014) EP
- (71) **Applicant:** **ALMIRALL, S.A.** [ES/ES]; Ronda del General Mitre 151, 8022 Barcelona (ES).
- (72) **Inventors:** **CARRERA CARRERA, Francesc**; c/o Laureà Miró, 408-410, Sant Feliu de Llobregat, E-08980 Barcelona (ES). **PEREZ GARCIA, Juan Bautista**; c/o Laureà Miró, 408-410, Sant Feliu de Llobregat, E-08980 Barcelona (ES). **VIDAL JUAN, Bernat**; c/o Laureà Miró, 408-410, Sant Feliu de Llobregat, E-08980 Barcelona (ES). **SANCHEZ IZQUIERDO, Francisco**; c/o Laureà Miró, 408-410, Sant Feliu de Llobregat, E-08980 Barcelona (ES). **SERRA COMA, Maria Carme**; c/o Laureà Miró, 408-410, Sant Feliu de Llobregat, E-08980 Barcelona (ES).

(74) **Agent:** **SRINIVASAN, Ravi Chandran**; 14 South Square, Gray's Inn, London Greater London WC1R 5JJ (GB).

(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, 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.

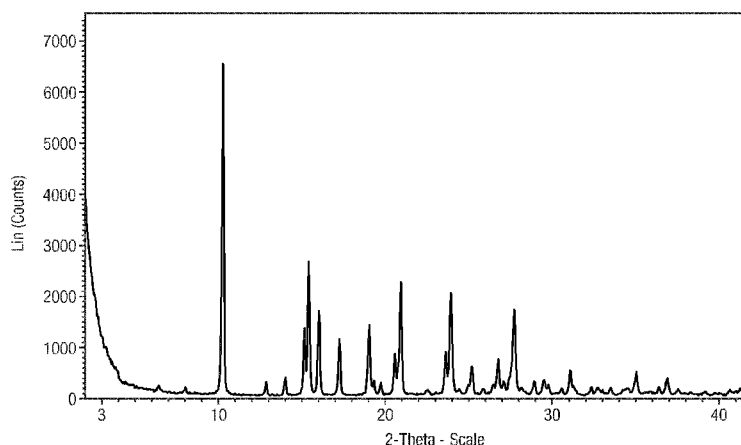
(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, 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))

(54) **Title:** ADDITION SALTS OF (S)-2-(1-(6-AMINO-5-CYANOPYRIMIDIN-4-YLAMINO)ETHYL)-4-OXO-3-PHENYL-3,4-DIHYDROPYRROLO[1,2-F][1,2,4]TRIAZINE-5-CARBONITRILE

Fig. 1



(57) **Abstract:** The present invention is directed to novel pharmaceutically acceptable, addition salts of (S)-2-(1-(6-amino-5-cyanopyrimidin-4-ylamino)ethyl)-4-oxo-3-phenyl-3,4-dihydropyrrolo[1,2-f][1,2,4]triazine-5-carbonitrile with sulfonic acid derivatives, in particular with methanesulfonic acid, naphthalene-2-sulfonic acid and para-toluenesulfonic acid, and pharmaceutically acceptable solvates thereof, and their use as Phosphoinositide 3-Kinase (PI3K) inhibitors.