

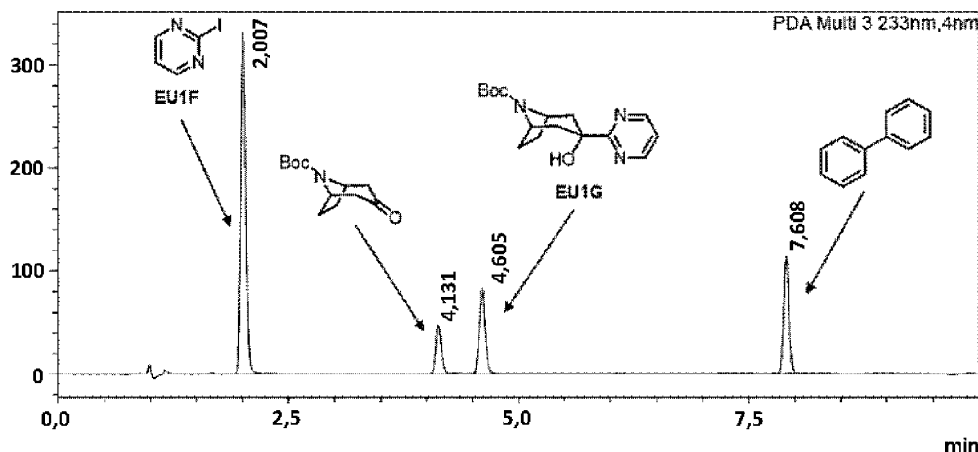
(51) **International Patent Classification:**
C07D 451/06 (2006.01) *B01J 19/00* (2006.01)(21) **International Application Number:**
PCT/AU2024/050170(22) **International Filing Date:**
01 March 2024 (01.03.2024)(25) **Filing Language:** English(26) **Publication Language:** English(30) **Priority Data:**
2023900544 02 March 2023 (02.03.2023) AU(71) **Applicant: ACTINOGEN MEDICAL LIMITED**
[AU/AU]; Suite 901, Level 9, 109 Pitt Street, Sydney, New South Wales 2000 (AU).(72) **Inventors: WILLIAMS, Jason Douglas;** C/O- Actinogen Medical Limited, Suite 901, Level 9, 109 Pitt Street, Sydney, New South Wales 2000 (AU). **PRIESCHL, Michael;** C/O- Actinogen Medical Limited, Suite 901, Level 9, 109 Pitt Street, Sydney, New South Wales 2000 (AU).(74) **Agent: FB RICE PTY LTD;** Level 33, 477 Collins St, Melbourne, Victoria 3000 (AU).(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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.(84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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).(54) **Title:** FLOW CHEMISTRY PROCESS FOR PREPARING AZA-BICYCLIC HETEROARYL COMPOUNDS

Figure 4

(57) **Abstract:** The present disclosure relates to a continuous flow process for synthesis of heterocyclic methanone compounds, and in particular 3'-substituted, 3-hydroxyl-(8-aza-bicyclo[3.2.1]oct-8-yl)-[5-(1h-pyrazol-4-yl)-thiophen-3-yl]-methanone compounds, and aza-bicyclo intermediates thereof. In particular, the present disclosure also relates to a continuous flow process that can be utilised toward the synthesis of Xanamem.

[Continued on next page]

Published:

- *with international search report (Art. 21(3))*
- *in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE*