

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
23 July 2020 (23.07.2020)



(10) International Publication Number
WO 2020/148619 A1

(51) International Patent Classification:

C07D 215/12 (2006.01) C07C 311/54 (2006.01)
C07D 319/16 (2006.01) C07D 241/12 (2006.01)
C07D 233/54 (2006.01) C07D 277/22 (2006.01)

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, ST, SV, SY, TH, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(21) International Application Number:

PCT/IB2020/050216

(22) International Filing Date:

13 January 2020 (13.01.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

201921001555 14 January 2019 (14.01.2019) IN

(71) Applicant: CADILA HEALTHCARE LIMITED

[IN/IN]; Zydus Corporate Park, Scheme No. 63, Survey No. 536, Khoraj (Gandhinagar), Nr. Vaishnodevi Circle, Sarkhej – Gandhinagar Highway, Ahmedabad, Gujarat 382481 (IN).

(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).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

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))
— in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE

(72) Inventors: SHARMA, Rajiv; Cadila Healthcare Limited,

Zydus Corporate Park, Scheme No. 63, Survey No. 536, Khoraj (Gandhinagar), Nr. Vaishnodevi Circle, Sarkhej – Gandhinagar Highway, Ahmedabad, Gujarat 382481 (IN).
AGARWAL, Sameer; Cadila Healthcare Limited, Zydus Corporate Park, Scheme No. 63, Survey No. 536, Khoraj (Gandhinagar), Nr. Vaishnodevi Circle, Sarkhej – Gandhinagar Highway, Ahmedabad, Gujarat 382481 (IN).

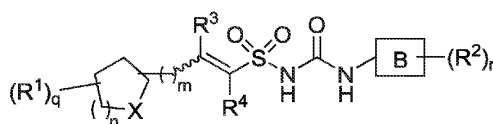
(74) Agent: ELANGBAM, Nanda et al.; Subramaniam & Associates,

7th Floor, M3M Cosmopolitan, Sector 66, Golf Course Extension Road, Gurugram, National Capital Region 122001 (IN).

(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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME,

(54) Title: NOVEL SUBSTITUTED SULFONYLUREA DERIVATIVES



Formula (I)

(57) Abstract: The present invention relates to novel heterocyclic compounds of the general formula (I) their pharmaceutically acceptable salts, pharmaceutically acceptable solvates, enantiomers, diastereomers and polymorphs. The invention also relates to processes for the preparation of the compounds of invention, pharmaceutical compositions containing the compounds and their use as the compounds of the invention belong to the family of NOD-like receptor family (NLR) protein NLRP3 modulators. The present invention thus relates to novel NLRP3 modulators as well as to the use of the novel inhibitor compounds in the treatment of diseases or conditions in which interleukin 1 β activity is implicated.