

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
04 August 2022 (04.08.2022)



(10) International Publication Number
WO 2022/164857 A1

(51) International Patent Classification:

C07D 231/12 (2006.01) C07D 401/04 (2006.01)
C07D 231/16 (2006.01) A01N 43/56 (2006.01)
C07D 249/06 (2006.01) A01N 43/647 (2006.01)
C07D 257/04 (2006.01) A01N 43/713 (2006.01)

(21) International Application Number:

PCT/US2022/013839

(22) International Filing Date:

26 January 2022 (26.01.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/142,365 27 January 2021 (27.01.2021) US

(71) Applicant: FMC CORPORATION [US/US]; 2929 Walnut Street, Patent Dept., Philadelphia, PA 19104 (US).

(72) Inventors: ZHANG, Wenming; c/o FMC Corporation-Patent Dept., 2929 Walnut Street, Philadelphia, PA 19104 (US). SANA, Kasinath; c/o FMC Corporation-Patent Dept., 2929 Walnut Street, Philadelphia, PA 19104 (US). ROSSI, Michael, Alan; c/o FMC Corporation-Patent Dept., 2929 Walnut Street, Philadelphia, PA 19104 (US). BOLGUNAS, Stephen, P.; c/o FMC Corporation-Patent Dept., 2929 Walnut Street, Philadelphia, PA 19104 (US).

(74) Agent: EPELBAUM, Sabine, U.; FMC Corporation-Patent Dept., 2929 Walnut Street, Philadelphia, PA 19104 (US).

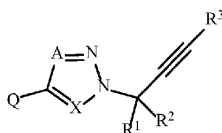
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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, 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, 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, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: AZOLE COMPOUNDS FOR CONTROLLING INVERTEBRATE PESTS



(57) Abstract: Disclosed are compounds of Formula 1, including all geometric and stereoisomers, N-oxides, and salts thereof, Wherein R¹, R², R³, A, X and Q are as defined in the disclosure. Also disclosed are compositions containing the compounds of Formula 1 and methods for controlling an invertebrate pest comprising contacting the invertebrate pest or its environment with a biologically effective amount of a compound or a composition of the disclosure.