

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
24 April 2025 (24.04.2025)



(10) International Publication Number
WO 2025/085791 A1

(51) International Patent Classification:

C07D 471/04 (2006.01) A61K 31/5025 (2006.01)
A61P 35/00 (2006.01)

(21) International Application Number:

PCT/US2024/052035

(22) International Filing Date:

18 October 2024 (18.10.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/545,142 20 October 2023 (20.10.2023) US

(71) Applicant: **MIRATI THERAPEUTICS, INC.** [US/US];
Route 206 and Province Line Road, Princeton, New Jersey
08543 (US).

(72) Inventors: **DING, Xiaodan**; c/o J-Star Research, Inc., 6
Cedarbrook, Cranbury, New Jersey 08512 (US). **SHAH,**
Harsh; c/o J-Star Research, Inc., 6 Cedarbrook, Cran-
bury, New Jersey 08512 (US). **KUANG, Shanming**; c/o J-
Star Research, Inc., 6 Cedarbrook, Cranbury, New Jersey
08512 (US). **CHADHA, Aastha**; c/o Bristol-Myers Squibb

Company, Route 206 and Province Line Road, Princeton,
New Jersey 08543 (US). **SCATTOLIN, Thomas**; c/o Bris-
tol-Myers Squibb Company, Route 206 and Province Line
Road, Princeton, New Jersey 08543 (US). **CHEN, Ron**; c/
o Bristol-Myers Squibb Company, Route 206 and Province
Line Road, Princeton, New Jersey 08543 (US).

(74) Agent: **ISSAC, Roy** et al.; Bristol-Myers Squibb Company,
Route 206 and Province Line Road, Princeton, New Jersey
08543 (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, 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.

(54) Title: CRYSTALLINE FORMS OF MRTX0902

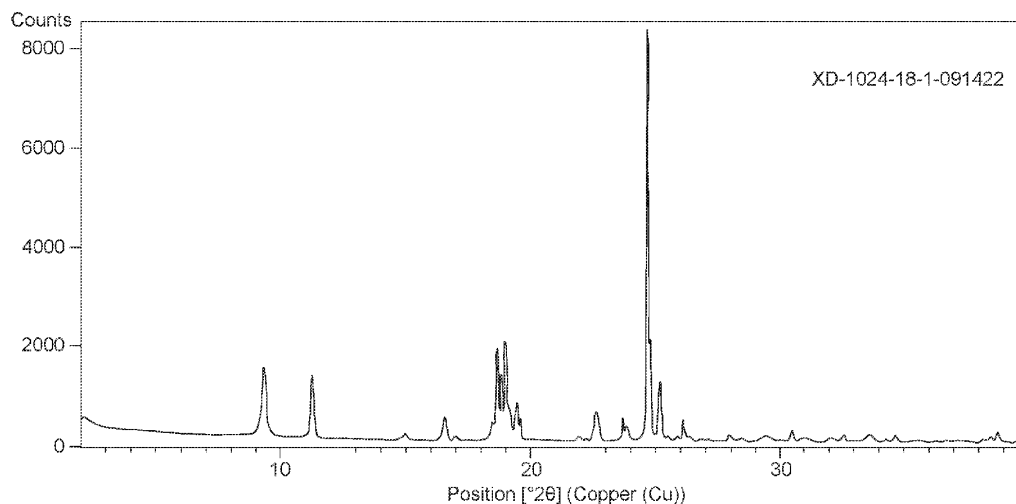


Figure 1

(57) Abstract: The present invention relates to crystalline forms of MRTX0902 ((R)-2-methyl-3-(1-((4-methyl-7-morpholinop
yrido[3,4-d]pyridazin-1-yl)amino)ethyl)benzonitrile), pharmaceutical compositions comprising the crystalline forms, processes for
preparing the crystalline forms and methods of use thereof.

[Continued on next page]

WO 2025/085791 A1

(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).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*