

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
25 August 2022 (25.08.2022)



(10) International Publication Number
WO 2022/175225 A1

(51) International Patent Classification:
G03F 7/40 (2006.01)

(21) International Application Number:
PCT/EP2022/053584

(22) International Filing Date:
15 February 2022 (15.02.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2021-024064 18 February 2021 (18.02.2021) JP

(71) Applicant: **MERCK PATENT GMBH** [DE/DE]; Frank-
furter Strasse 250, 64293 Darmstadt (DE).

(72) Inventor: **IKEDA, Hirokazu**; c/o Merck Electronics Ltd.,
3330, Chihama, Kakegawa-shi, Shizuoka, 437-1412 (JP).

(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, JM, 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, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Published:

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

(54) Title: RESIST FILM THICKENING COMPOSITION AND METHOD FOR MANUFACTURING THICKENED PATTERN

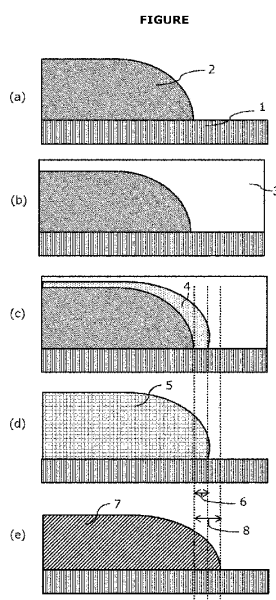


Figure 1

(57) Abstract: [Problem] To provide a resist film thickening composition. [Means for Solution] The resist film thickening composition comprises a polymer (A), a nitrogen-containing compound (B) and a solvent (C): wherein the nitrogen-containing compound (B) is a 5- or 6-membered nitrogen-containing unsaturated heterocyclic compound substituted with one or two substituents selected from the group consisting of hydroxy, amino, C₁₋₄ hydroxyalkyl and C₁₋₄ aminoalkyl.



WO 2022/175225 A1