

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
26 June 2025 (26.06.2025)



(10) International Publication Number
WO 2025/134877 A1

(51) International Patent Classification:
H01L 21/304 (2006.01)

(21) International Application Number:
PCT/JP2024/043719

(22) International Filing Date:
11 December 2024 (11.12.2024)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/613,764 22 December 2023 (22.12.2023) US

(71) Applicants: **FUJIFILM CORPORATION** [JP/JP];
26-30, Nishiazabu 2-chome, Minato-ku, Tokyo, 1068620
(JP). **FUJIFILM ELECTRONIC MATERIALS U.S.A.,
INC.** [US/US]; 6550 S Mountain Rd, Mesa Arizona, 85212
(US).

(72) Inventors: **KAMIMURA Tetsuya**; c/o FUJIFILM Cor-
poration, 4000, Kawashiri, Yoshida-cho, Haibara-gun,
Shizuoka, 4210396 (JP). **MIZUTANI Atsushi**; c/o FU-
JIFILM Corporation, 4000, Kawashiri, Yoshida-cho,
Haibara-gun, Shizuoka, 4210396 (JP). **HU Bin**; c/o FU-
JIFILM Electronic Materials U.S.A., Inc., 6550 S Mountain
Rd, Mesa Arizona, 85212 (US). **LIANG Yannan**; c/o FU-
JIFILM Electronic Materials U.S.A., Inc., 6550 S Moun-
tain Rd, Mesa Arizona, 85212 (US). **SUGIMURA Nobua-
ki**; c/o FUJIFILM Electronic Materials U.S.A., Inc., 6550 S
Mountain Rd, Mesa Arizona, 85212 (US). **HUANG Ting-
Kai**; c/o FUJIFILM Electronic Materials U.S.A., Inc., 6550
S Mountain Rd, Mesa Arizona, 85212 (US). **FAN Hanyu**;
c/o FUJIFILM Electronic Materials U.S.A., Inc., 6550 S
Mountain Rd, Mesa Arizona, 85212 (US). **LI Wei**; c/o FU-
JIFILM Electronic Materials U.S.A., Inc., 6550 S Mountain
Rd, Mesa Arizona, 85212 (US). **LEE Hyosang**; c/o FU-
JIFILM Electronic Materials U.S.A., Inc., 6550 S Mountain
Rd, Mesa Arizona, 85212 (US).

(74) Agent: **ITOH Hideaki** et al.; XYMAX Iwamoto-cho
Building 6F., 3-3, Iwamoto-cho 2-chome, Chiyoda-ku,
Tokyo, 1010032 (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, 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).

Published:

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

(54) Title: KIT AND METHOD FOR MANUFACTURING SEMICONDUCTOR DEVICE

(57) Abstract: Provided are a kit including a polishing liquid and a washing liquid and a method for manufacturing a semiconductor device using the kit. The kit, when used for a treatment in which a treatment target is subjected to chemical mechanical polishing and the treatment target subjected to chemical mechanical polishing is further washed, can suppress the occurrence of scratches on the treatment target surface and leaves less organic residues on the treatment target surface. The kit for use in subjecting a treatment target to chemical mechanical polishing and further washing the treatment target subjected to chemical mechanical polishing includes a polishing liquid and a washing liquid. The polishing liquid includes an abrasive grain, a nonionic surfactant, and a specific azole compound selected from the group consisting of benzotriazole and derivatives thereof and has a pH of 7.0 or more, and the washing liquid includes an amine compound.



WO 2025/134877 A1