

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
14 July 2022 (14.07.2022)



(10) International Publication Number
WO 2022/148759 A1

(51) International Patent Classification:
G03F 7/022 (2006.01) G03F 7/023 (2006.01)
(21) International Application Number:
PCT/EP2022/050108
(22) International Filing Date:
05 January 2022 (05.01.2022)

(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data:
63/134,608 07 January 2021 (07.01.2021) US
63/280,310 17 November 2021 (17.11.2021) US

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

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))



WO 2022/148759 A1

(54) Title: POSITIVE-WORKING PHOTORESIST COMPOSITION WITH IMPROVED PATTERN PROFILE AND DEPTH OF FOCUS (DOF)

(57) Abstract: The disclosed subject matter relates to resist compositions that include the following components: Component a) a blend of two Novolak polymers having structures (I) and (II); component b) a diazo-naphthoquinone sulfonate (DNQ-PAC) component which is a single material or a mixture of materials having general formula having structure (III) or having general formula (III-I); is a dissolution enhancer component comprising a polyphenolic compound which is a single compound or a mixture of at least two compounds selected from the group consisting of an oligomeric fractionated Novolak, a compounds having general structure (VI) and a compound having general structure (VII), wherein R_{de1}, R_{de2}, R_{de3}, R_{de4} and R_{de5} are individually selected from a C-1 to C-4 alkyl; component d) a surfactant; and component e) an organic spin casting solvent, and an optional component f) a heterocyclic thiol.