

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

(19) World Intellectual Property
Organization
International Bureau



(10) International Publication Number
WO 2021/018927 A1

(43) International Publication Date
04 February 2021 (04.02.2021)

(51) International Patent Classification:

G03F 7/032 (2006.01) G03F 7/105 (2006.01)
G03F 7/038 (2006.01) G03F 7/00 (2006.01)
G03F 7/075 (2006.01)

(21) International Application Number:

PCT/EP2020/071329

(22) International Filing Date:

29 July 2020 (29.07.2020)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

2019-141025 31 July 2019 (31.07.2019) JP

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

(72) Inventors: **SHIBAYAMA, Seishi**; c/o Merck Performance Materials Ltd., 3330, Chihama, Kagegawa-shi, Shizuoka 437-1412 (JP). **YOKOYAMA, Daishi**; c/o Merck Performance Materials Ltd., 3330, Chihama, Kagegawa-shi, Shizuoka 437-1412 (JP). **NOYA, Atsuko**; c/o Merck Performance Materials Ltd., 3330, Chihama, Kagegawa-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, 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: NEGATIVE TYPE PHOTSENSITIVE COMPOSITION COMPRISING BLACK COLORANT

(57) Abstract: [Problem] To provide a negative type photosensitive composition which is capable of forming a cured film having high resolution and high light shielding properties. [Means for Solution] A negative type photosensitive composition comprising (I) an alkali-soluble resin, (II) a black colorant, (III) a polymerization initiator, and (IV) a solvent, wherein the black colorant (II) has a transmittance ratio represented by [transmittance at the wavelength of 365 nm] / [transmittance at the wavelength of 500 nm] of 1.2 or more.



WO 2021/018927 A1