

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
03 July 2025 (03.07.2025)



(10) International Publication Number
WO 2025/140970 A1

(51) International Patent Classification:

C07C 1/32 (2006.01) C07C 41/30 (2006.01)
C07C 15/14 (2006.01) C07C 43/285 (2006.01)
C07C 15/16 (2006.01)

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.

(21) International Application Number:

PCT/EP2024/087848

(22) International Filing Date:

20 December 2024 (20.12.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/615,303 28 December 2023 (28.12.2023) US

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

(72) Inventors: **LARBIG, Gregor**; c/o Merck Electronics KGaA, Frankfurter Strasse 250, 64293 Darmstadt (DE). **FADLER, Eva**; c/o Merck Electronics KGaA, Frankfurter Strasse 250, 64293 Darmstadt (DE). **HENGST, Matthias**; c/o Merck Electronics KGaA, Frankfurter Strasse 250, 64293 Darmstadt (DE). **EDELMANN, Celine Juliana**; c/o Merck Electronics KGaA, Frankfurter Strasse 250, 64293 Darmstadt (DE). **SCHERM, Annika**; c/o Merck Electronics KGaA, Frankfurter Strasse 250, 64293 Darmstadt (DE). **OSTHOFF, Julian**; c/o Merck Electronics KGaA, Frankfurter Strasse 250, 64293 Darmstadt (DE).

(74) Agent: **MERCK PATENT ASSOCIATION**; c/o Merck Patent GmbH, 64271 Darmstadt (DE).

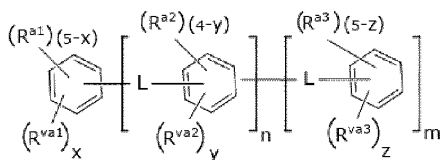
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,

(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))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE

(54) Title: SUZUKI COUPLING ON BI- AND TRIPHENYL COMPOUNDS



(Ia1)

(57) Abstract: The present invention relates to a new method for synthesizing a chemical compound, comprising at least a following step; (I^x) Applying Suzuki-Coupling to a precursor compound represented by the following chemical formula (I^{a1}) in the presence of an organoboron compound containing a group selected from one or members of the group selected from a vinyl group, alkyl vinyl group having carbon atoms 3 to 5 and a vinyl alcohol group. The synthesized compound can be a kind of advanced material or high performance material, and can be used for Inkjet Adaptive Planarization composition. It can be used in the nanotechnology process to make semiconductor device/display device application, for example liquid crystal, quantum dot or OLED display fabricated on a substrate, and controlled by semiconductors.

WO 2025/140970 A1