

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
15 February 2024 (15.02.2024)



(10) International Publication Number
WO 2024/032894 A1

(51) International Patent Classification:
B41J 2/06 (2006.01) *B41J 2/145* (2006.01)

(21) International Application Number:
PCT/EP2022/072592

(22) International Filing Date:
11 August 2022 (11.08.2022)

(25) Filing Language: English

(26) Publication Language: English

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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, 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, 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, SC, SD, SL, ST, SZ,

(54) Title: ELECTROHYDRODYNAMIC PRINT HEAD WITH DISTRIBUTED FEED STRUCTURE

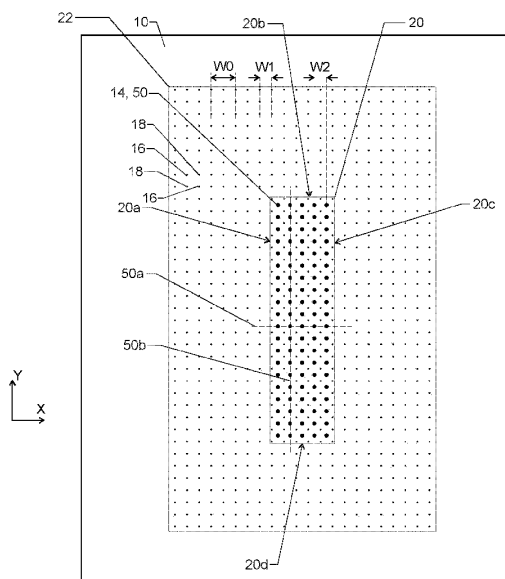


Fig. 2

(57) Abstract: The electrohydrodynamic print head comprises ink nozzles (50) as well as blow openings (16) for dry gas and suction openings (18) at its front side. In addition, humid gas is fed through the print head to the nozzles (50). The front side (10) has an elongate active region (20) surrounded by a passive region (22), with all the ink nozzles (50) being arranged in the active region (20). The blow and suction openings (16, 18) are arranged in the active and the passive regions (20, 22) such that the active region is surrounded by ventilation openings (16, 18). Ink feed slit vias (48) beneath the rows of the nozzles provide a homogenous ink supply. In one of the bottom layers of the print head, bulk feed and withdrawal ducts (38 - 44) distribute the fluids to smaller ducts above them. Manifolds (52, 88, 108, 118) are provided in the print head in order to homogenize the feed and withdrawal of the fluids. Manifolds are used to further homogenize with fluid flows.

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