

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
01 December 2022 (01.12.2022)



(10) International Publication Number
WO 2022/251149 A1

- (51) **International Patent Classification:**
A61M 25/06 (2006.01) *A61M 25/09* (2006.01)
- (21) **International Application Number:**
PCT/US2022/030635
- (22) **International Filing Date:**
24 May 2022 (24.05.2022)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/193,497 26 May 2021 (26.05.2021) US
- (71) **Applicant: BECTON, DICKINSON AND COMPANY**
[US/US]; 1 Becton Drive, Franklin Lakes, New Jersey 07417 (US).
- (72) **Inventors: BURKHOLZ, Jonathan, Karl;** 1971 South Wasatch Drive, Salt Lake City, Utah 84108 (US). **HARDING, Weston, F.;** 2421 N 910 W, Lehi, Utah 84043 (US). **SCHERICH, Megan;** 253 E. Wilson Avenue, Salt Lake City, Utah 84115 (US).
- (74) **Agent: QUEEN, Lara, Northrop et al.;** The Webb Law Firm, One Gateway Center, 420 Ft. Duquesne Blvd., Suite 1200, Pittsburgh, Pennsylvania 15222 (US).
- (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, 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, 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,

(54) **Title:** INTRAVENOUS CATHETER DEVICE HAVING A PROBE WITH A SELECTIVELY PERMEABLE DISTAL END

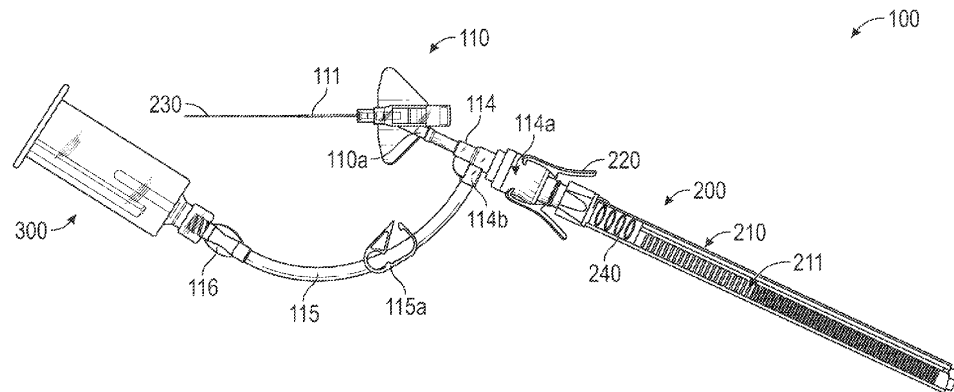


FIG. 1

(57) **Abstract:** An intravenous catheter device can have a probe with a selectively permeable distal end. The probe can be inserted through a catheter while the catheter is positioned intravenously to facilitate fluid flow into or out from the catheter such as by removing an occlusion or repositioning the catheter. Due to its selective permeability, the distal end of the probe can minimize the likelihood of the probe becoming occluded while it is inserted intravenously and may provide control over the rate of fluid flow into or out from the catheter.

[Continued on next page]

WO 2022/251149 A1

TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*