

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
05 May 2022 (05.05.2022)



(10) International Publication Number
WO 2022/093578 A1

(51) International Patent Classification:

A61B 5/15 (2006.01) A61M 39/06 (2006.01)
A61M 39/04 (2006.01)

(21) International Application Number:

PCT/US2021/055599

(22) International Filing Date:

19 October 2021 (19.10.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

202011175769.9 29 October 2020 (29.10.2020) CN

(71) Applicant: **BECTON, DICKINSON AND COMPANY**
[US/US]; 1 Becton Drive, Franklin Lakes, New Jersey
07417 (US).

(72) Inventors: **CHEN, Xiwei**; 9F/10F, Tower 3, JingAn Kerry
Centre No 1228, Yan'an Road Middle, JingAn District,
Shanghai, Shanghai 200040 (CN). **YAN, Bo**; 9F/10F, Tow-
er 3, JingAn Kerry Centre No 1228, Yan'an Road Middle,
JingAn District, Shanghai, Shanghai 200040 (CN).

(74) Agent: **BLAIR, Whitney**; Kirton McConkie, 36 South
State Street, Suite 1900, Salt Lake City, Utah 84111 (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, 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).

Declarations under Rule 4.17:

— 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))
— 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))

(54) Title: CATHETER SYSTEM INSERT

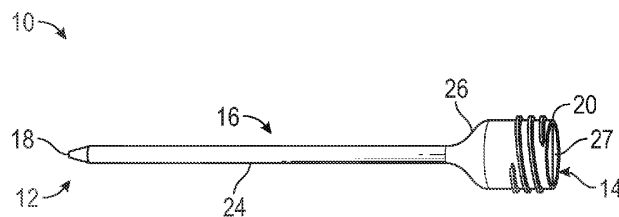


FIG. 1A

(57) Abstract: An insert for a catheter system may include a distal end, a proximal end, and a middle portion disposed between the distal end and the proximal end. The distal end of the insert may include a male port, and the proximal end of the insert may include a female port opposite the male port. The insert may be configured to extend through an adapter and/or a needleless connector of a catheter system to reduce exposure of the adapter and/or the needleless connector to blood, which may flow through a lumen of the insert. The lumen of the insert may extend through the male port, the middle portion, and the female port.

WO 2022/093578 A1