



(51) International Patent Classification:

C23C 28/00 (2006.01) C25D 9/02 (2006.01)
C23C 22/30 (2006.01) C25D 13/04 (2006.01)
C25D 5/34 (2006.01)

(21) International Application Number:

PCT/US2009/049660

(22) International Filing Date:

6 July 2009 (06.07.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/183,384 31 July 2008 (31.07.2008) US

(71) Applicant (for all designated States except US): **PPG INDUSTRIES OHIO, INC.** [US/US]; 3800 West 143rd Street, Cleveland, OH 44111 (US).

(72) Inventors: **PAWLIK, Michael, J.**; 400 Vilsack Road, Glenshaw, PA 15116 (US). **MARDIS, Kelly, L.**; 81 Marker Road, Farmington, PA 15437 (US). **PEFFER, Robin, M.**; 176 Dwellington Drive, Valencia, PA 16059 (US).

(74) Agents: **MEYERS, Diane, R.** et al.; PPG Industries, Inc., One PPG Place - 39th Floor, Pittsburgh, PA 15272 (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, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (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, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, 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))

Published:

— with international search report (Art. 21(3))

(54) Title: PASSIVATED METAL CORE SUBSTRATE AND PROCESS FOR PREPARING THE SAME

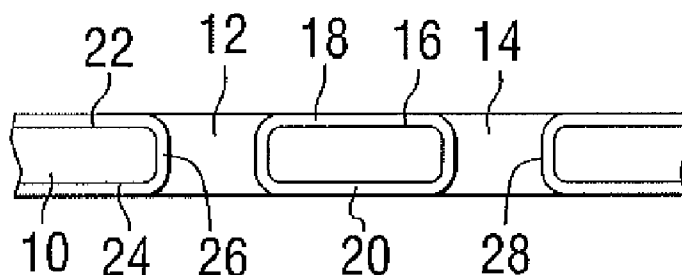


FIG. 6

(57) Abstract: A substrate includes an iron-nickel alloy core or a cobalt-nickel ferrous alloy core, a chromium conversion coating (16) on at least a portion of the core (10), and an insulating coating (18, 20) on the chromium conversion coating (16). A method of making a substrate includes: providing an iron-nickel alloy core or a cobalt-nickel ferrous alloy core, applying a chromium conversion coating (16) on at least a portion of the core (10), and applying an insulating coating (18, 20) on the chromium conversion coating (16).