



- (51) International Patent Classification:
C09D 1/00 (2006.01) *C23C 26/00* (2006.01)
- (21) International Application Number:
PCT/US2013/043718
- (22) International Filing Date:
31 May 2013 (31.05.2013)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/654,659 1 June 2012 (01.06.2012) US
- (71) Applicant: **BASF CORPORATION** [US/US]; 100 Park Avenue, Florham Park, NJ 07932 (US).
- (72) Inventors: **PETRONE, Sabino, Steven Anthony**; 9510-100 Street Northwest, Edmonton, T5K0T5 (CA). **DEUIS, Robert, Leslie**; 3723-30 Street Northwest, Edmonton, T6T1H7 (CA). **KONG, Fuwing**; 10843-33a Avenue Northwest, Edmonton, T6J3C2 (CA). **CHEN, Yan**; 2 Carmel Wynd, Sherwood Park, T8A5L1 (CA).
- (74) Agents: **BROWN, Melanie** et al.; Basf Corporation, 100 Park Avenue, Florham Park, NJ 07932 (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, 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, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, 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).

Published:

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

(54) Title: CATALYTIC SURFACES AND COATINGS FOR THE MANUFACTURE OF PETROCHEMICALS

(57) Abstract: This disclosure describes a coating composition comprising: Mn_xO_y , $MnCr_2O_4$, or combinations thereof in a first region of a coating having a first thickness, wherein x and y are integers between 1 and 7; and $X_6W_6(Si_z, C_{1-z})$ in a second region of the coating having a second thickness, wherein X is Ni or a mixture of Ni and one or more transition metals and z ranges from 0 to 1.



WO 2013/181606 A1