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| <b>(51) International Patent Classification <sup>6</sup>:</b><br><b>C25D 3/00, C23C 2/06</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>A1</b> | <b>(11) International Publication Number:</b> <b>WO 97/31137</b><br><b>(43) International Publication Date:</b> 28 August 1997 (28.08.97)                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>(21) International Application Number:</b> PCT/EP97/00864 ✓<br><b>(22) International Filing Date:</b> 20 February 1997 (20.02.97) ✓<br><b>(30) Priority Data:</b> ✓<br>96200465.1 23 February 1996 (23.02.96) EP<br><b>(34) Countries for which the regional or international application was filed:</b> AT et al.<br><br><b>(71) Applicant (for all designated States except US):</b> N.V. UNION MINIERE S.A. [BE/BE]; Rue du Marais 31, B-1000 Brussels (BE).<br><br><b>(72) Inventors; and</b><br><b>(75) Inventors/Applicants (for US only):</b> GILLES, Michael [BE/BE]; Dr.-Verwaeststraat 10, B-2440 Geel (BE). SOKOLOWSKI, Richard [FR/FR]; 323, rue F.-Debruille, F-59194 Raches (FR). |           | <b>(81) Designated States:</b> AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, <u>SG</u> , SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).<br><br><b>Published</b><br><i>With international search report.</i> |
| <b>(54) Title:</b> HOT-DIP GALVANIZING BATH AND PROCESS ✓<br><b>(57) Abstract</b><br><p>The zinc bath, which is particularly useful for batch-wise galvanizing steel articles, contains 3-15 wt.% of tin, lead at a concentration up to saturation and 0-0.06 wt.% of at least one of aluminium, calcium and magnesium, the rest being zinc and unavoidable impurities in order to diminish the influence of the silicon content of the steel to be galvanized on the coating thickness.</p>                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |