

Title (en)

METHOD OF PHOSPHATING METALLIC SURFACES

Publication

**EP 0042631 B1 19841031 (DE)**

Application

**EP 81200442 A 19810417**

Priority

DE 3023479 A 19800624

Abstract (en)

[origin: EP0042631A1] Coatings are formed on iron or steel surfaces by immersing them in a hot acidic solution comprising zinc, phosphate and nitrate and a relatively high content of manganese of at least 0.6 g/l.

IPC 1-7

**C23F 7/10**

IPC 8 full level

**C23C 22/18** (2006.01); **C23C 22/36** (2006.01)

CPC (source: EP)

**C23C 22/184** (2013.01); **C23C 22/364** (2013.01)

Citation (examination)

DE 1287412 B 19690116 - METALLGESELLSCHAFT AG

Cited by

US5976272A; US5234509A; EP0172806A4; EP0186823A3; EP0298827A1; FR2618164A1; US5045130A; US5039361A; US4681641A; EP0106459A1; US9506151B2; WO9609422A1; WO0123638A1

Designated contracting state (EPC)

BE DE FR NL SE

DOCDB simple family (publication)

**EP 0042631 A1 19811230; EP 0042631 B1 19841031**; DE 3023479 A1 19820114; DE 3166907 D1 19841206; ES 502507 A0 19830416; ES 8305052 A1 19830416; GB 2078788 A 19820113; GB 2078788 B 19841003; IT 1137254 B 19860903; IT 8122510 A0 19810623; PT 73117 A 19810701; PT 73117 B 19820715

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**EP 81200442 A 19810417**; DE 3023479 A 19800624; DE 3166907 T 19810417; ES 502507 A 19810526; GB 8118779 A 19810618; IT 2251081 A 19810623; PT 7311781 A 19810602