

Title (en)  
PHOSPHATIZING PROCESS FOR ELECTROLYTICALLY GALVANIZED METAL OBJECTS

Publication  
**EP 0219779 B1 19911211 (DE)**

Application  
**EP 86114075 A 19861010**

Priority  
DE 3537108 A 19851018

Abstract (en)  
[origin: ES2002422A6] A method for phosphate coating zinc or nickel-zinc alloy electrolytically coated metal surfaces, in which they are exposed to a phosphating solution containing zinc, manganese, and phosphate ions, and optionally cobalt and/or nitrate ions. The method is conducted at an elevated temperature for up to slightly more than 5 seconds.

IPC 1-7  
**C23C 22/18**

IPC 8 full level  
**C23C 22/12** (2006.01); **C23C 22/13** (2006.01); **C23C 22/18** (2006.01)

CPC (source: EP KR US)  
**C23C 2/04** (2013.01 - KR); **C23C 22/182** (2013.01 - EP US)

Cited by  
US5516372A; EP0564287A3; WO9102829A3

Designated contracting state (EPC)  
AT BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)  
**EP 0219779 A2 19870429; EP 0219779 A3 19881221; EP 0219779 B1 19911211**; AT E70314 T1 19911215; AU 581789 B2 19890302; AU 6415686 A 19870430; CA 1240905 A 19880823; DE 3537108 A1 19870423; DE 3682865 D1 19920123; ES 2002422 A6 19880801; JP H086183 B2 19960124; JP S6299478 A 19870508; KR 870004164 A 19870507; KR 930010339 B1 19931016; US 4762572 A 19880809; ZA 867903 B 19870527

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**EP 86114075 A 19861010**; AT 86114075 T 19861010; AU 6415686 A 19861017; CA 520902 A 19861020; DE 3537108 A 19851018; DE 3682865 T 19861010; ES 8602645 A 19861017; JP 24825186 A 19861018; KR 860008719 A 19861017; US 92166586 A 19861020; ZA 867903 A 19861017