

Title (en)  
NICKEL-FREE PHOSPHATIZATION PROCESS.

Title (de)  
NICKELFREIE PHOSPHATIERVERFAHREN.

Title (fr)  
PROCEDE DE PHOSPHATATION EXEMPT DE NICKEL.

Publication  
**EP 0633950 A1 19950118 (DE)**

Application  
**EP 92924684 A 19921207**

Priority  
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• EP 9202827 W 19921207

Abstract (en)  
[origin: WO9320259A1] The invention concerns a process for the manufacture of copper-containing nickel-free phosphate films, with a defined copper content and a defined phosphate-crystal edge length, on metal surfaces, using phosphatization solutions which, in addition to zinc, copper and phosphate ions, contain hydroxylammonium salts, hydroxylamine complexes and/or hydroxylamine as accelerators.

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IPC 8 full level  
**B05D 3/10** (2006.01); **B05D 7/14** (2006.01); **C23C 22/08** (2006.01); **C23C 22/12** (2006.01); **C23C 22/17** (2006.01); **C23C 22/18** (2006.01); **C23C 22/22** (2006.01); **C23C 28/00** (2006.01)

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Citation (search report)  
See references of WO 9320259A1

Cited by  
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**WO 9320259 A1 19931014**; AT E138112 T1 19960615; CA 2133455 A1 19931014; DE 4210513 A1 19931007; DE 59206327 D1 19960620; EP 0633950 A1 19950118; EP 0633950 B1 19960515; ES 2086782 T3 19960701; JP H07505445 A 19950615; US 6197126 B1 20010306

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