

Title (en)
PHOSPHATING METHOD ACCELERATED BY N-OXIDES

Title (de)
MIT N-OXIDEN BESCHLEUNIGTES PHOSPHATIERVERFAHREN

Title (fr)
PROCEDE DE PHOSPHATATION ACCELERE PAR N-OXYDES

Publication
EP 1005578 B1 20021009 (DE)

Application
EP 98943785 A 19980725

Priority

- DE 19733978 A 19970806
- DE 19750301 A 19971113
- EP 9804669 W 19980725

Abstract (en)
[origin: WO9907916A1] The invention relates to an acidic aqueous phosphating solution, containing 0.2 to 3g/l zinc ions, 3 to 50g/l phosphate ions, calculated as PO₄³⁻, and 0.05 to 4 g/l of an organic N-oxide. The N-oxide is preferably chosen from the N-oxides of substituted or non-substituted pyridines and morpholines, especially from pyridine-N-oxide, 2-methylpyridine-N-oxide, 4-methylpyridine-N-oxide, morpholine-N-oxide and N-methylmorpholine-N-oxide. The phosphating solution contains a co-accelerator; preferably chlorate, hydrogen peroxide, nitroguanidine and/or m-nitrobenzol sulfonate.

IPC 1-7
C23C 22/12; **C23C 22/36**

IPC 8 full level
C23C 22/12 (2006.01); **C23C 22/36** (2006.01)

CPC (source: EP US)
C23C 22/12 (2013.01 - EP US); **C23C 22/364** (2013.01 - EP US)

Cited by
DE102008044143A1; DE102008044143B4

Designated contracting state (EPC)
DE ES FR GB IT

DOCDB simple family (publication)
WO 9907916 A1 19990218; AU 9156398 A 19990301; CA 2300276 A1 19990218; DE 59805918 D1 20021114; EP 1005578 A1 20000607; EP 1005578 B1 20021009; ES 2185213 T3 20030416; US 6379474 B1 20020430

DOCDB simple family (application)
EP 9804669 W 19980725; AU 9156398 A 19980725; CA 2300276 A 19980725; DE 59805918 T 19980725; EP 98943785 A 19980725; ES 98943785 T 19980725; US 48527401 A 20010110