

Title (en)
Electroless nickel-boron plating.

Title (de)
Stromlose Nickel-Bor-Plattierung.

Title (fr)
Placage sans courant avec nickel-bore.

Publication
EP 0073583 A1 19830309 (EN)

Application
EP 82304210 A 19820810

Priority
US 29552381 A 19810824

Abstract (en)
The boron content of an electroless nickel-boron deposit is enhanced by including in the bath a source of zirconyl ions or vanadyl ions, which bath can be operated at moderate temperature and pH despite the fact that boranes can be used as reducing agents. The deposit laid down has a boron content of at least about 2 weight %, based on the total weight of the deposit. The source of the ions may be for example zirconyl chloride, vanadyl sulfate or sodium metavanadate at a concentration between 0.001 and 0.1 mol per liter of the bath.

IPC 1-7
C23C 3/02

IPC 8 full level
C23C 18/32 (2006.01); **C23C 18/34** (2006.01); **H05K 3/18** (2006.01)

CPC (source: EP)
C23C 18/34 (2013.01)

Citation (search report)

- [A] GB 1360592 A 19740717 - RCA CORP
- [Y] GB 2066857 A 19810715 - VMEI LENIN NIS
- [Y] US 4019910 A 19770426 - MALLORY JR GLENN O
- [Y] US 4139660 A 19790213 - TUR WLADIMIR
- [Y] US 4151311 A 19790424 - FELDSTEIN NATHAN [US]
- [X] US 4167416 A 19790911 - ZOLLA BRUNO
- [Y] US 4259376 A 19810331 - FELDSTEIN NATHAN
- [Y] DE 1198167 B 19650805 - DU PONT

Cited by
US6908504B2; EP1211334A3; CN111118480A; EP0084937A1; US4503131A; US7279231B2

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

DOCDB simple family (publication)
EP 0073583 A1 19830309; **EP 0073583 B1 19860312**; CA 1176404 A 19841023; DE 3269823 D1 19860417; JP H0153352 B2 19891114;
JP S5842766 A 19830312

DOCDB simple family (application)
EP 82304210 A 19820810; CA 407217 A 19820714; DE 3269823 T 19820810; JP 14675182 A 19820824