

Title (en)
Method of nitriding steel.

Title (de)
Verfahren der Nitrierung von Stahl.

Title (fr)
Procédé de nitruration d'acier.

Publication
EP 0516899 A1 19921209 (EN)

Application
EP 91305033 A 19910604

Priority
• EP 91305033 A 19910604
• CN 91104154 A 19910624

Abstract (en)
This invention relates to a method for forming a uniform, deep nitride layer on and in steel works at low cost, wherein a steel work is fluorided in heated condition in an atmosphere of a mixed gas composed of fluorine gas and inert gas with or without nitrogen trifluoride gas and, then, nitrated in heated condition in an atmosphere of nitriding gas.

IPC 1-7
C23C 8/34

IPC 8 full level
C23C 4/02 (2006.01); **C23C 4/18** (2006.01); **C23C 8/02** (2006.01); **C23C 8/26** (2006.01); **C23C 8/34** (2006.01)

CPC (source: EP)
C23C 4/02 (2013.01); **C23C 4/18** (2013.01); **C23C 8/02** (2013.01); **C23C 8/26** (2013.01); **C23C 8/34** (2013.01)

Citation (search report)
• [XD] EP 0408168 A1 19910116 - DAIDO OXYGEN [JP]
• [A] EP 0352061 A2 19900124 - HASHIMOTO CHEMICAL IND [JP]
• [A] US 2851387 A 19580909 - SIDNEY LOW
• [A] SU 638635 A1 19781228 - MO AVTOMOBILNO DOROZHNYJ INST [SU]

Cited by
EP0877175A3; EP0744471A3; EP1544317A4; EP0802339A3; US5833373A; ES2112786A1; WO2019057555A1; WO2018086930A1; WO2004029320A1; US11492693B2; US11885027B2; US11193197B2; US11649538B2

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

DOCDB simple family (publication)
EP 0516899 A1 19921209; EP 0516899 B1 19951011; AT E129023 T1 19951015; CN 1032375 C 19960724; CN 1067929 A 19930113; DE 69113789 D1 19951116; DE 69113789 T2 19960425; DK 0516899 T3 19960226; ES 2082138 T3 19960316

DOCDB simple family (application)
EP 91305033 A 19910604; AT 91305033 T 19910604; CN 91104154 A 19910624; DE 69113789 T 19910604; DK 91305033 T 19910604; ES 91305033 T 19910604