

Title (en)

A PROCESS TO FORM A SULPHIDE CASE AT THE SURFACE OF A METAL PART

Publication

**EP 0218916 B1 19911227 (EN)**

Application

**EP 86112510 A 19860910**

Priority

CN 85106828 A 19850910

Abstract (en)

[origin: EP0218916A1] The present invention relates to a process and the corresponding equipment, with which a case of sulphide forms at the surface of metal part (5) by heating and gasifying sulphur, the metal part (5) is on the table (4) of cathode in a vacuum reacting chamber (1) of said equipment while a vapourizer (6) is provided in the same vacuum reacting chamber (1), the vapourizer (6) being heated with a low voltage supply (11) and used to hold solid sulphur. Under vacuum condition, solid sulphur will be gasified by heating and the gasified sulphur will be ionized and discharged with glow under the action of a direct electric field at high voltage between the anode (2) and cathode (4), under the glow discharge conditions, the positive sulphur ions will bombard the metal parts (5) which are located on the cathode table (4) and a sulphide case will be formed at the surfaces of parts (5).

IPC 1-7

**C23C 14/32**

IPC 8 full level

**C23C 8/36** (2006.01); **C23C 8/38** (2006.01)

CPC (source: EP)

**C23C 8/38** (2013.01)

Citation (examination)

- Heat Treatment of Metals, Vol. 3, 1983, p. 6-9
- J. of China Textile Engineering Assoc., vol. 4, No. 2, 1983, p. 5-10
- Hubei-Mechanics, vol. 4, 1981, p.10-12

Cited by

US6468679B1; FR2688010A1

Designated contracting state (EPC)

DE FR GB IT SE

DOCDB simple family (publication)

**EP 0218916 A1 19870422; EP 0218916 B1 19911227**; CN 85106828 A 19870311; CN 85106828 B 19870909; DE 3683119 D1 19920206; JP S6289858 A 19870424; JP S6357501 B2 19881111

DOCDB simple family (application)

**EP 86112510 A 19860910**; CN 85106828 A 19850910; DE 3683119 T 19860910; JP 21372286 A 19860910