

Title (en)

Vanadium alloy having improved oxidation resistance.

Title (de)

Vanadiumlegierung mit Korrosionsbeständigkeit.

Title (fr)

Alliage de vanadium possédant une résistance à l'oxydation.

Publication

EP 0176379 A1 19860402 (EN)

Application

EP 85401562 A 19850731

Priority

US 63892684 A 19840809

Abstract (en)

A vanadium alloy including chromium and titanium constituents is employed as a substrate for a structural member. To improve the oxidation resistance of the member, chromium or aluminum is diffused into a surface of the substrate thereby forming a gradient of the diffused metal through the substrate and defining an enriched surface layer. The resulting member performs well as a first wall and/or blanket in a fusion reactor in the presence of an oxidizing coolant.

IPC 1-7

C23C 10/10; **C23C 10/32**; **C23C 10/48**; **C23C 10/38**; **C23C 10/56**

IPC 8 full level

C23C 10/08 (2006.01); **C23C 10/10** (2006.01); **C23C 10/32** (2006.01); **C23C 10/38** (2006.01); **C23C 10/48** (2006.01); **C23C 10/56** (2006.01)

CPC (source: EP)

C23C 10/10 (2013.01); **C23C 10/32** (2013.01); **C23C 10/38** (2013.01); **C23C 10/48** (2013.01); **C23C 10/56** (2013.01)

Citation (search report)

- [X] US 3127283 A 19640331
- [X] FR 1453876 A 19660722 - CT TECH DE L IND HORLOGERE
- [A] FR 1566639 A 19690509
- [A] FR 706456 A 19310624 - ALSTHOM CGEE
- [A] FR 2000202 A1 19690829 - ALBRIGHT & WILSON

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0176379 A1 19860402; AU 4463285 A 19860213; JP S61106764 A 19860524

DOCDB simple family (application)

EP 85401562 A 19850731; AU 4463285 A 19850705; JP 17128485 A 19850805