

Title (en)

STAINLESS STEEL OBJECT HAVING A SURFACE MODIFIED WITH CHROMIUM

Title (de)

GEGENSTAND AUS EDELSTAHL MIT EINER MIT CHROM MODIFIZIERTEN OBERFLÄCHE

Title (fr)

OBJET EN ACIER INOXYDABLE AYANT UNE SURFACE MODIFIÉE AVEC DU CHROME

Publication

EP 3850121 A1 20210721 (EN)

Application

EP 19769790 A 20190916

Priority

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- EP 2019074689 W 20190916

Abstract (en)

[origin: WO2020053443A1] Disclosed herein is a process for the manufacture of a stainless steel object having a surface modified with chromium, comprising the steps of providing a stainless steel object comprising 12-25% by weight chromium, 2-25 % by weight nickel, 0-4% by weight molybdenum, 0.1% by weight or less carbon, and to 100% by weight iron; enriching a surface layer of the stainless steel object in chromium by a thermochemical surface treatment; treating the stainless steel object having a surface enriched in chromium at a temperature of 900°C to 1180°C in an inert atmosphere or vacuum; and subsequently, quenching the stainless steel object at a cooling rate of 0.5°C/s to 50°C/s to a temperature of 500 °C or less. The surface-modified stainless steel objects obtained by the process shows high corrosion resistance.

IPC 8 full level

C23C 10/06 (2006.01); **C23C 10/08** (2006.01); **C23C 10/10** (2006.01); **C23C 10/12** (2006.01); **C23C 10/18** (2006.01); **C23C 10/20** (2006.01); **C23C 10/24** (2006.01); **C23C 10/32** (2006.01); **C23C 10/34** (2006.01); **C23C 10/36** (2006.01); **C23C 10/38** (2006.01); **C23C 10/40** (2006.01); **C23C 10/42** (2006.01); **C23C 10/60** (2006.01)

CPC (source: EP)

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Citation (search report)

See references of WO 2020053443A1

Cited by

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