

Title (en)

Quaternary cobalt-nickel-chromium-molybdenum fatigue resistant alloy for intravascular medical devices

Title (de)

Quaternäre Kobalt-Nickel-Chrom-Molybän ermüdungsbeständige Legierung für medizinische intravaskuläre Einrichtungen

Title (fr)

Alliage quaternaire cobalt-nickel-chrome-molybdène résistant à la fatigue pour dispositifs médicaux intravasculaire

Publication

EP 1657318 A1 20060517 (EN)

Application

EP 05256860 A 20051105

Priority

US 98406204 A 20041109

Abstract (en)

A biocompatible solid-solution alloy may be formed into any number of implantable medical devices. The solid-solution alloy comprises a combination of elements in specific ratios that improve its fatigue resistance while retaining the characteristics required for implantable medical devices. The biocompatible solid-solution alloy is a quaternary cobalt-nickel-chromium-molybdenum alloy having substantially reduced titanium content. In one embodiment the alloy comprises nickel in the range from about 33 weight percent to about 37 weight percent, chromium in the range from about 19 weight percent to about 21 weight percent, molybdenum in the range from about 9 weight percent to about 11 weight percent, iron in the range from about 0 weight percent to about 1 weight percent, manganese in the range from about 0 weight percent to about 0.15 weight percent, silicon in the range from about 0 weight percent to about 0.15 weight percent, carbon in the range from about 0 to about 0.025 weight percent, phosphorous in the range from about 0 to about 0.015 weight percent, boron in the range from about 0 to about 0.015 weight percent, sulfur in the range from about 0 to about 0.010 weight percent, titanium in an amount not to exceed 0.015 weight percent and the remainder cobalt.

IPC 8 full level

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CPC (source: EP US)

C22C 19/051 (2013.01 - EP US); **C22C 19/07** (2013.01 - EP US); **C22F 1/10** (2013.01 - EP US)

Citation (search report)

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