

Title (en)

Superalloy component with dispersion-containing protective coating, and method of preparation.

Title (de)

Superlegierung-Komponente mit Dispersions-Schutzlegierung und Verfahren zur Herstellung.

Title (fr)

Composant en super-alliage pourvu d'un revêtement protecteur contenant des dispersions et procédé de sa fabrication.

Publication

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Application

EP 92308099 A 19920908

Priority

US 75694791 A 19910909

Abstract (en)

A coated superalloy component includes a substrate article formed of a superalloy and an adherent coating over the substrate. The coating is a nickel-base superalloy containing at least about 0.1 volume percent or more of a dispersed oxide of yttrium, hafnium and/or a rare earth, and, preferably, grain boundary strengthening elements such as carbon, zirconium, and boron. The oxide dispersoids improve the performance of the coating in service, reducing the incidence failures due to thermal fatigue, oxidation, and corrosion damage. The dispersoid-containing coating may be formed by directly depositing the oxide-containing coating, or by depositing a metallic coating and then forming the dispersoids by subsequent heat treatment. <IMAGE>

IPC 1-7

C23C 4/06; **C23C 4/18**; **C23C 30/00**

IPC 8 full level

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Citation (search report)

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