

Title (en)

Corrosion resistant high temperature contacts or electrical connectors and method of fabrication thereof.

Title (de)

Hochtemperaturfeste Korrosionbeständige Kontakte oder elektrische Verbinder und Verfahren zu ihrer Herstellung.

Title (fr)

Contacts ou connecteurs électriques anticorrosion résistants aux températures élevées et méthode de fabrication.

Publication

EP 0531099 A2 19930310 (EN)

Application

EP 92307943 A 19920902

Priority

US 75526191 A 19910905

Abstract (en)

The invention provides a composite material specifically adapted for use as high temperature corrosion resistant electrical connectors. A conductible nickel-base substrate alloy having corrosion resistance, strength and creep resistance is used to hold shape at 200 DEG C. An interlayer of substantially pure nickel is electrolytically plated over the nickel-base substrate. A noble metal surface is diffusion bonded to the electrolytic nickel interlayer. The noble metal surface cannot be hardened by organic additives which accelerate corrosion at 200 DEG C. Alternatively, if a copper-base substrate is used, a layer of wrought pure nickel is bonded to the substrate then a layer of electroplated nickel is used to overplate the wrought nickel and the copper-base substrate. A noble metal surface is then diffusion bonded to the electrolytic nickel layer.

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