

Title (en)
IMPROVEMENTS RELATING TO COATINGS FOR METAL ALLOY COMPONENTS

Title (de)
VERBESSERUNGEN IM ZUSAMMENHANG MIT BESCHICHTUNGEN FÜR METALLLEGIERUNGSKOMPONENTEN

Title (fr)
AMÉLIORATIONS APPORTÉES À DES REVÊTEMENTS POUR DES COMPOSANTS D'ALLIAGE MÉTALLIQUE

Publication
EP 3502315 A1 20190626 (EN)

Application
EP 17208479 A 20171219

Priority
EP 17208479 A 20171219

Abstract (en)
A coating for a component, such as a turbine aerofoil, which may provide said component with corrosion resistance and which may also provide enhanced resistance to fractures and crack propagation as well as low cycle fatigue resistance, is disclosed. The coating is a platinum aluminide comprising chromium, aluminium, platinum and silicon. The coating is formed of fine grains of the platinum aluminide and coarse grains of the platinum aluminide. The coating may provide an effective outermost coating on said component. A component comprising such a coating, a method of forming such a coating on a component and a cold spraying apparatus for applying such a coating are also disclosed. Furthermore the relative amounts of fine and coarse grains can be altered in different regions of the coating to provide chemical and/or mechanical properties which are tailored to the requirements in particular regions of a component.

IPC 8 full level
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Citation (applicant)
• US 6514629 B1 20030204 - RIGNEY JOSEPH D [US], et al
• US 7989020 B2 20110802 - STRANGMAN THOMAS E [US], et al
• US 7749569 B2 20100706 - WILKINS MELVIN HOWARD [US], et al

Citation (search report)
• [XYI] US 6372321 B1 20020416 - RIGNEY JOSEPH D [US], et al
• [Y] EP 2072759 A2 20090624 - GEN ELECTRIC [US]
• [Y] US 6435835 B1 20020820 - ALLEN WILLIAM PATRICK [US], et al
• [XYI] EP 1712657 A2 20061018 - UNITED TECHNOLOGIES CORP [US]
• [A] WO 0185386 A2 20011115 - OPTOMECH DESIGN [US]
• [A] EP 2781616 A1 20140924 - ALSTOM TECHNOLOGY LTD [CH]
• [A] EP 2612954 A2 20130710 - GEN ELECTRIC [US]

Designated contracting state (EPC)
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