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54 **Coating for metallic substrates, method of production and use of the coating.**

57 A coating comprising aluminum and at least one of the transition metals of the groups IVB, VB and VIB, are prepared comprising a unique microstructure which may be a solid solution of the transition metal in an aluminide matrix or a pseudo solid solution of the transition metal in an aluminum matrix. By means of special processes a super fine distribution of the transition metal within the matrix may be obtained in the form of a metastable pseudo solid solution even though thermodynamic considerations disfavour such fine distributions. The coating may, with advantage, be applied to superalloys and be heat treated together with the substrate in order to form a stable aluminide coating comprising transition metal dispersions in an aluminide matrix. One of the preferred manufacturing processes of such coatings is the electrodeposition thereof from non-aqueous electrolytes.

EP 0 184 985 A3



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EUROPEAN SEARCH REPORT

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EP 85 81 0521

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
A	EP-A-0 023 762 (NIHON MEDEL)		C 25 D 3/56 C 25 D 5/50
D, X P, E	<p>---</p> <p>EP-A-0 148 122 (ELTECH SYSTEMS)</p> <p>* Whole patent *</p>	1-13	
A	<p>---</p> <p>CHEMICAL ABSTRACTS, vol. 77, no. 26, 25th December 1972, page 521, abstract no. 171827u, Columbus, Ohio, US; Ch.V. GERASIMOVICH et al.: "Electroplating aluminum on copper and steel", & CHEM. CHEM. TECHNOL. 1971, No. 13, 275-8</p>		
A	<p>---</p> <p>CHEMICAL ABSTRACTS, vol. 67, no. 14, 2nd October 1967, page 6581, abstract no. 70034w, Columbus, Ohio, US; A. LEVINSKAS et al.: "The phase diagram and electrolysis of the aluminum bromide-diethyl ether system", & ELEKTROKHIMIYA 3(6), 781-5(1967)</p> <p>-----</p>		<p>TECHNICAL FIELDS SEARCHED (Int. Cl. 4)</p> <p>C 25 D 3/56</p>
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 07-10-1987	Examiner VAN LEEUWEN R.H.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone</p> <p>Y : particularly relevant if combined with another document of the same category</p> <p>A : technological background</p> <p>O : non-written disclosure</p> <p>P : intermediate document</p> <p>T : theory or principle underlying the invention</p> <p>E : earlier patent document, but published on, or after the filing date</p> <p>D : document cited in the application</p> <p>L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>			