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**Zincate type zinc-iron alloy electroplating bath.**

A zincate type Zn-Fe alloy electroplating bath is disclosed which comprises a Zn compound, an alkali hydroxide, a Fe(II, III) salt, a complexing agent for dissolving the Fe(II, III) salt and a brightening agent. The brightening agent comprises a compound obtainable by quaternizing a derivative of thiourea with an alkylating agent bearing C<sub>1</sub>-C<sub>4</sub> alkyl groups, and an alkylated polyalkylene polyamine obtainable by alkylating one or more of the basic nitrogen atoms of a polyalkylene polyamine with an alkylating agent bearing C<sub>1</sub>-C<sub>3</sub> alkyl groups.



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# EUROPEAN SEARCH REPORT

Application Number

EP 92 30 7553

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.5)
A	US-A-4 983 263 (Y. YASUDA ET AL) Abstract	1,2	C25D3/56
A	<p>---</p> <p>CHEMICAL ABSTRACTS, vol. 114, no. 25, 25 February 1991, Columbus, Ohio, US; abstract no. 71148n, 'ZINCATE-TYPE ZINC ALLOY PLATING BATH' * abstract * &amp; JP-A-02 141 596 (YUKEN INDUSTRIES) 30 May 1990</p> <p>-----</p>	1,2	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			C25D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 19 JULY 1993	Examiner GOOVAERTS R.E.
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure F : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>&amp; : member of the same patent family, corresponding document</p>			

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