Title (en)

Electrodeposit of a pink gold alloy, its preparation and electroplating bath.

Title (de)

Galvanische Abscheidung einer rosafarbenen Goldlegierung, ihre Herstellung und galvanisches Bad.

Title (fr)

DépÔt électrolytique d'un alliage d'or rose, sa préparation et bain électrolytique.

Publication

EP 0018753 A1 19801112 (EN)

Application

EP 80301243 A 19800417

Priority

GB 7914220 A 19790424

Abstract (en)

Electrodeposition of a hard, bright, pore-free ductile gold alloy having a pink coloration, useful for decorative purposes, is effected using an aqueous cyanide-free electroplating bath essentially comprising: (a) from 4 to 20 g/l of gold, (b) from 0.1 to 3.0 g/l of copper, (c) from 0.2 to 5.0 of palladium, (d) from 5 to 200 g/l of free sulphite ion, (e) from 0 to 150 g/l of one or more buffering agents and/or conducting salts, (f) from 0.001 to 0.5 g/l of a brightening element selected from arsenic, antimony and thallium, (g) from 0.01 to 5.0 g/l of a surface active agent, and (h) water. The bath has a pH in the range from 7 to 11.5, preferably about 9.5 and electrodeposition of the pink alloy can be carried out at a cathode current density of from 0.1 to 1.5 amp/dm<2> and a temperature of 40 to 80 DEG C, preferably with moderate agitation of the cathode during the electroplating process. The pink alloy will normally contain from 2 to 8 parts by weight copper, from 2 to 6 parts by weight palladium and the balance gold. Such a bath is less prone to the colour stability and pollution problems encountered with conventional electroplating baths for producing pink gold electrodeposits.

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IPC 8 full level

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CPC (source: EP)

C25D 3/62 (2013.01)

Citation (search report)

- AT 335814 B 19770412 - SCHERING AG [DE]
- US 4048023 A 19770913 - STEVENS PETER
- CH 534215 A 19730228 - OXY METAL FINISHING EUROP S A [CH]
- AT 310522 B 19731010 - SEL REX CORP [US]

Cited by

CN104357883A; CN110699713A

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EP 0018753 A1 19801112; AU 5711280 A 19801030; DK 172980 A 19801025; FI 801200 A 19801025; FR 2455097 A1 19801121; GB 2047749 A 19801203; GB 2047749 B 19830202; HK 31084 A 19840413; IT 8067643 A0 19800423

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EP 80301243 A 19800417; AU 5711280 A 19800402; DK 172980 A 19800423; FI 801200 A 19800415; FR 8008379 A 19800415; GB 8012744 A 19800417; HK 31084 A 19840405; IT 6764380 A 19800423