

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALEXANDER S. KOZLOV, THIRUMALAI PALANISAMY
and DAVE NARASIMHAN

Appeal No. 2002-0843
Application No. 09/611,182

ON BRIEF

Before KIMLIN, TIMM and JEFFREY T. SMITH, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-4, 7, 9-23, 25 and 26. The examiner has indicated that claims 5, 6 and 8 define allowable subject matter. Claim 1 is illustrative:

1. An electroless plating composition comprising an aqueous solution comprising:

a) a water soluble, platinum nitrite salt or platinum ammine-nitrite salt;

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b) a water soluble rhodium nitrite salt or rhodium ammine-nitrite salt;

c) ammonium hydroxide; and

d) hydrazine hydrate.

The examiner relies upon the following references as evidence of obviousness:

Rhoda et al. (Rhoda)	3,486,928	Dec. 30, 1969
Ishihara et al. (Ishihara)	5,032,694	Jul. 16, 1991
Chang et al. (Chang)	5,980,345	Nov. 9, 1999
Torikai et al. (JP '168) (Japanese Kokai patent publication)	JP 58204168	Nov. 28, 1983

Appellants' claimed invention is directed to a composition and process for electroless plating of a platinum-rhodium alloy. The composition comprises an aqueous solution which includes a platinum nitrite salt or platinum ammine-nitrite salt and a rhodium nitrite salt or rhodium ammine-nitrite salt.

Appealed claims 1, 2, 4, 7, 9-21, 23, 25 and 26 stand rejected under 35 U.S.C. § 103 as being unpatentable over Rhoda in view of Chang. Claim 3 stands rejected under 35 U.S.C. § 103 as being unpatentable over the stated combination of references further in view of JP '168. Also, claim 22 stands rejected under 35 U.S.C. § 103 as being unpatentable over Rhoda and Chang further in view of Ishihara.

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Upon careful consideration of the opposing arguments presented on appeal, we find that the examiner has not established a prima facie case of obviousness for the claimed subject matter. Accordingly, we will not sustain the examiner's rejections.

Rhoda, the examiner's primary reference, discloses the electroless plating of a platinum-rhodium alloy but, as appreciated by the examiner, the reference does not disclose the use of the claimed platinum salt in the plating solution. To remedy this deficiency the examiner relies upon Chang's disclosure of employing platinum diammine dinitrite in the electroless plating of platinum. According to the examiner, "[i]t would have been obvious to one skilled in the art to use the platinum diammine dinitrite of Chang et al., as the platinum salt material in Rhoda et al., with the expectation of providing the desired electroless plating results" (page 4 of Answer, second paragraph).

The flaw in the examiner's reasoning is that Rhoda provides no teaching or suggestion that platinum salts, in general, can be used in the electroless deposition of a platinum-rhodium alloy. Rather, Rhoda focuses specifically on a singular platinum compound for use in the plating solution, namely, platinum IV

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hydroxide. In particular, Rhoda discloses that "[t]he special bath provided in accordance with the invention may be considered, particularly with reference to platinum, as a solution in aqueous sodium (or potassium) hydroxide of a platinum salt" (column 5, lines 30-33). Rhoda simply provides no teaching that any other salt of platinum can be used in the disclosed electroless plating process. Consequently, since Chang is directed to the deposition of platinum only, and not a platinum alloy, we cannot agree with the examiner that the collective teachings of Rhoda and Chang would have suggested the use of the presently claimed plating solution for depositing a platinum-rhodium alloy.

As for separately rejected claims 3 and 22, the examiner does not rely upon JP '168 or Ishihara for teaching the deficiency of the combined teachings of Rhoda and Chang discussed above.

This application is remanded to the examiner to consider a rejection of the appealed claims, as well as the allowed claims, over JP '168. Appellants' specification, at page 4, acknowledges that JP '168 "teaches a process for electroless plating of platinum-rhodium alloy onto a substrate using an aqueous plating bath comprising a platinum and rhodium as ammine chlorides, hydroxylamine salt as a stabilizer and the hydrazine as a

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reducing agent" (lines 5-8). Also, it does not appear that appellants have taken issue with the examiner's factual finding that JP '168 utilizes a rhodium salt "in the form of an ammine-nitrite salt, which meets the limitations of the applicant's Claim 3" (page 4 of Answer, last paragraph). Also, JP '168 discloses that the electroless plating bath may contain the ammine complex salt of other metals, such as platinum, in addition to the ammine complex salt of rhodium (page 3 of translation, third paragraph). Furthermore, although appellants' specification describes the plating bath of JP '168 as comprising platinum and rhodium ammine chlorides, the reference also discloses that the ammine salt can be a nitrite as well as a halide, i.e., "X is a halogen, NO₂ etc." (id., fourth paragraph). The reference further discloses that "[i]n the case of plating the rhodium alloy, it is preferred to treat the mixed salt of the salts of rhodium, platinum, rutheniums, iridium, nickel and cobalt similarly with the hot ammonia water under pressurization and use it as a stable mixed ammine salt complex solution" (id., last paragraph). As for the substrate to be plated, the reference teaches substrates of metal, synthetic resin, glass and ceramics (see page 6 of translation, paragraph six). Accordingly, the examiner should determine whether JP '168

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establishes a prima facie case of obviousness for electroless plating solutions comprising platinum and rhodium salts within the scope of the appealed claims.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is reversed, and the application is remanded to the examiner for the reasons outlined.

This application, by virtue of its "special" status, requires immediate action by the examiner. See the Manual of Patent Examining Procedure, § 708.01(D) (8th ed., Aug. 2001). It is important that the Board of Patent Appeals and Interferences be informed promptly of any action affecting the appeal in this case.

REVERSED AND REMANDED

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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CATHERINE TIMM)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
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