

The opinion in support of the decision being entered today was *not* written for publication 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 EDWARD LEE ARRINGTON,
JOHN CHRISTOPHER CAMP, ROBERT JEFFREY DAY,
EDMOND OTTO FEY, CURTIS MICHAEL GUNTHER
and THOMAS RICHARD MILLER

Appeal No. 2000-1005
Application 08/813,765

ON BRIEF

Before WARREN, KRATZ and DELMENDO, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

Decision on Appeal and Opinion

We have carefully considered the record in this appeal under 35 U.S.C. § 134, including the opposing views of the examiner, in the answer, and appellants, in the brief, and based on our review, find that we cannot sustain the rejection of appealed claims 5, 9 through 11, 13 and 16 through 18 under 35 U.S.C. § 103(a) as being unpatentable over Babu et al. (Babu) in view of Karas et al. (Karas); of appealed claims 6 through 8 under 35 U.S.C. § 103 as being unpatentable over Babu in view of Karas further in view of Ott et al. (Ott); and of appealed claims 14 and 15

under 35 U.S.C. § 103 as being unpatentable over Babu in view of Karas further in view of Canestaro.^{1,2}

It is well settled that in order to establish a *prima facie* case of obviousness under § 103(a), the examiner must show that some objective teaching, suggestion or motivation in the applied prior art taken as a whole and/or knowledge generally available to one of ordinary skill in this art would have led that person to the claimed invention as a whole, including each and every limitation of the claims, without recourse to the teachings in appellants' disclosure. *See generally, In re Rouffet*, 149 F.3d 1350, 1358, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998); *Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629-30 (Fed. Cir. 1996); *In re Fritch*, 972 F.2d 1260, 1265-66, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992); *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Laskowski*, 871 F.2d 115, 10 USPQ2d 1397 (Fed. Cir. 1989); *In re Fine*, 837 F.2d 1071, 1074-76, 5 USPQ2d 1596, 1598-1600 (Fed. Cir. 1988). The requirement for objective factual underpinnings for a rejection under § 103(a) extends to the determination of whether the references can be combined. *See In re Lee*, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002), and cases cited therein.

We find that, when considered in light of the written description in the specification as interpreted by one of ordinary skill in this art, *see, e.g., In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000); *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997), *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989), the plain language of appealed claims 5 and 13 requires that the claimed method comprises the steps of “pretreating the catalyst layer and the circuit pattern to remove a portion of the catalyst layer *and* a portion of residual circuit materials from the substrate” (emphasis supplied), “oxidizing the *remaining residual circuit materials*” (emphasis supplied) and “removing the remaining catalyst layer *and the oxidized residual circuit materials* from the substrate” (emphasis supplied).

¹ These are all of the claims in the application. See the amendment of May 18, 1998 (Paper No. 7).

² Answer, pages 3-5.

In comparing the process steps required in appealed claims 5 and 13 with the prior art as applied by the examiner, we must agree with appellants that the combination of references would not result in the claimed process encompassed by these claims and that one of ordinary skill in this art would not have combined the teachings of these references. Appellants point out that Babu does not address the matter of the “seeped circuit material,” that is, the “residual circuit materials,” and the “plasma discharge to facilitate removal of the [catalyst] seed particles” does not completely remove the remaining circuit material (specification, page 2, lines 10-16; *see* brief, page 5). *See* Babu, col. 1, l. 51, to col. 2, l. 12. Thus, contrary to the difference with respect to Babu noted by the examiner (answer, page 3), it is not “oxidizing the seed particles” that is at issue, but the oxidizing of the remaining circuit material. Therefore, while Karas teaches the removal of the “residual precious metal catalyst” without “degrading the plated [circuit] metal” (e.g., col. 3, ll. 44-47 and 65-67, col. 4, ll. 3-6) as recognized by the examiner (answer, page 3), such teachings even if applied to the process of Babu DOES not result in either the required pretreatment step or the required step of oxidizing the remaining circuit materials. The teaching of the “deactivation step” in Ott relied on by the examiner (answer, page 4) even if correctly applied to appealed claims 5 and 13, which it is not (brief, page 6, first sentence), does not cure this matter because the reference clearly teaches that the “deactivation step is performed after generation of the pattern of conductive traces and before The step of chemical deposition” (col. 2, ll. 64-66).

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Suite 201
3 Lear Jet Lane
Latham, NY 12110