

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHN P. CRONIN, ANOOP AGRAWAL
and MICHAEL TROSKY

Appeal No. 95-2718
Application 07/914,852¹

ON BRIEF

Before KIMLIN, GARRIS and OWENS, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-31. Claims 32 and 33, the other claims remaining in the present application, stand withdrawn from consideration.

Claim 1 is

illustrative:

¹ Application for patent filed July 15, 1992.

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A method for reducing the haze in a conductive tin oxide film on a substrate comprising:

providing a substrate having a conductive tin oxide surface film;

providing a solution of a metallic oxide precursor in a suitable carrier solvent;

coating said conductive tin oxide surface with said coating solution by a wet chemical solution deposition process to form a coating of a desired thickness; and

removing said solvent and converting said precursor to a solid-state metal oxide film overlying said tin oxide surface.

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

Moser et al. (Moser)	4,996,083	Feb. 26, 1991
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Appellants' claimed invention is directed to a method for reducing the haze in a conductive tin oxide film that is situated on a substrate. The method entails coating the conductive tin oxide film with a solution of a metallic oxide precursor, removing the solvent of the solution, and converting the precursor to a solid-state metal oxide film which overlies the tin oxide film.

Appellants submit at page 4 of the principal Brief that claims 1-4, 11, 13-18 and 21-25 stand or fall together.

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Appealed claims 1-31 stand rejected under 35 U.S.C. § 112, second paragraph. Claims 1-4, 6-11, 13-18, 21, 23-27, 29 and 30 stand rejected under 35 U.S.C. § 103 as being unpatentable over Moser.

We consider first the rejection of the appealed claims under 35 U.S.C. § 112, second paragraph. It is the examiner's position that the claim 1 language "suitable carrier solvent" and "a desired thickness" are indefinite. However, we fully concur with appellants that when the claim language is read in light of the relevant portions of the present specification, as it must be, one of ordinary skill in the art would readily understand which solvents are suitable and what is a desired thickness. We note that the Examiner's Answer offers no response to appellants' argument that one of ordinary skill in the art would understand the meaning of the claim language when such is read in light of the present specification. Likewise, the examiner has not established a prima facie case of indefiniteness of the claim language "metallic oxide precursor" or the claim 26 language "solid-state precursor." Accordingly, we will not sustain the examiner's rejection of the appealed claims under 35 U.S.C. § 112, second paragraph.

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We now turn to the § 103 rejection of claims 1-4, 6-11, 13-18, 21, 23-27, 29 and 30 over Moser. Like appellants, Moser discloses a method of forming a metal oxide film on the surface of a conductive tin oxide film by coating the tin oxide film with a solution comprising a metallic oxide precursor, removing the solvent, and converting the precursor to a metal oxide film. Appellants contend that "Moser et al. do not disclose or even suggest the use of tin oxide on glass" (page 4 of Reply Brief). However, this argument is not germane to the claimed subject matter inasmuch as claim 1 does not call for a tin oxide film on glass, but rather, on a substrate. Furthermore, at column 4, lines 1 et seq., Moser discloses that a substrate, such as glass, is rendered conductive by a surface coating by applying a conductive coating prior to the solution of metal oxide precursor. Although Moser teaches that indium tin oxide coatings are most preferred, we find that Moser would have suggested to one of ordinary skill in the art that a conductive tin oxide film can also be used. We note that page 1 of appellants' specification acknowledges that it was known in the art that "[t]he most widely used transparent conductors are indium

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oxide doped with tin (ITO) and doped tin oxide coatings, with doped tin oxide being widely used in displays and as solar coatings. Tin oxide coatings are also widely used in electrochromic devices." Moreover, we find that the claim language "a conductive tin oxide film" encompasses a conductive coating of indium tin oxide.

Appellants also maintain that Moser does not recognize the problem of poor optical quality of tin oxide films, which the claimed method addresses. However, it is well settled that the prior art need not disclose the same purpose for a claimed method in order to establish its obviousness under 35 U.S.C. § 103. In re Dillon, 919 F.2d 688, 693, 16 USPQ2d 1897, 1901 (Fed. Cir. 1990), cert. denied, 500 U.S. 409 (1991). Since it is our view that one of ordinary skill in the art would have found it obvious to select tin oxide as the conductive surface coating in the Moser method, any haze contained therein would have been necessarily reduced by the metal oxide coating. In addition, we note that appellants base no argument upon objective evidence of nonobviousness.

Page 3 of the Examiner's Answer indicates that appealed claim 5 is free of the prior art. Indeed, we find no teaching

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or suggestion in Moser that the metallic oxide precursor is a metal-peroxy acid ester, as claimed. Since, as pointed out by appellants, claims 6-10 are all ultimately dependent upon claim 5, the § 103 rejection of claims 6-10 cannot be sustained. Likewise, claims 12, 19 and 20, which also define the metallic oxide precursor as a metal-peroxy acid ester, are indicated as free of the prior art. In addition, the examiner has indicated in the Supplemental Answer that claims 28 and 31 are free of the art. Since claims 29 and 30 ultimately depend on claim 28, they, likewise, are free of the art.

We note that there is a discrepancy in the examiner's treatment of appealed claim 21. Page 3 of the Answer states that claim 21 would be allowable if rewritten to overcome the § 112 rejection, whereas page 4 of the Answer states that appealed claim 21 stands rejected under § 103. Since we find that Moser discloses a metallic oxide precursor that yields an electrically conductive metal oxide, we will sustain the § 103 rejection of claim 21 and claims 23-25 dependent thereon, as well as claims 26 and 27.

In conclusion, based on the foregoing, the examiner's rejection of claims 1-31 under 35 U.S.C. § 112, second

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paragraph, is reversed. The examiner's rejection of claims 1-4, 11, 13-18, 21 and 23-27 under 35 U.S.C. § 103 is affirmed. The examiner's rejection of claims 6-10, 29 and 30 under 35 U.S.C. § 103 is reversed. Claims 5, 12, 19, 20, 22, 28 and 31 remain free of prior art rejections.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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BRADLEY R. GARRIS)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
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