

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* HISASHI OHTANI, MISAKO NAKAZAWA, and SATOSHI MURAKAMI

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Appeal No. 2006-0129  
Application No. 09/550,598

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HEARD: January 11, 2006

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Before JERRY SMITH, GROSS, and LEVY, *Administrative Patent Judges*.

GROSS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 2, 4, 5, 7, 9, 11, 12, 14, 18, 20 through 27, and 29, which are all of the claims pending in this application.

Appellants' invention relates to a method of making a semiconductor device having an active matrix display device. Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A method for producing a semiconductor device having an active matrix display device, comprising:

forming a first conductive layer;

forming an insulating layer comprising an organic resin over said first conductive layer;

forming an opening in said insulating layer to expose said first conductive layer at a bottom of said opening;

forming an embedded conductive layer comprising an organic resin to cover said insulating layer and said opening;

etching or polishing said embedded conductive layer to expose a portion of the insulating layer;

forming a second conductive layer on said insulating layer and said embedded conductive layer; and

forming a pixel electrode by patterning the second conductive layer, wherein said second conductive layer is reflective.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

|                              |             |                       |
|------------------------------|-------------|-----------------------|
| Liu et al. (Liu)             | 5,536,950A  | Jul. 16, 1996         |
| Fukunaga et al. (Fukunaga)   | 5,706,064A  | Jan. 06, 1998         |
| Jun                          | 5,948,705A  | Sep. 07, 1999         |
| Kobayashi et al. (Kobayashi) | 6,221,140B1 | Apr. 24, 2001         |
|                              |             | (filed Jul. 09, 1999) |
| Izumi                        | 6,400,428B1 | Jun. 04, 2002         |
|                              |             | (filed Mar. 20, 1996) |

Claims 1, 5, 7, 9, 14, 18, 20 through 27, and 29 stand rejected under 35 U.S.C. § 103 as being unpatentable over Fukunaga in view of Liu and Izumi.

Claims 2 and 11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Fukunaga in view of Liu, Izumi, and Kobayashi.

Claims 4 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Fukunaga in view of Izumi, Jun, and Kobayashi.

Reference is made to the Examiner's Answer (mailed June 16, 2005) for the examiner's complete reasoning in support of the rejections, and to appellants' Brief (filed April 13, 2005) and Reply Brief (filed August 18, 2005) for appellants' arguments thereagainst.

## OPINION

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by appellants and the examiner. As a consequence of our review, we will reverse the obviousness rejections of claims 1, 2, 4, 5, 7, 9, 11, 12, 14, 18, 20 through 27, and 29.

The examiner (Answer, page 3) relies on insulating layer 413/414 of Fukunaga for the insulating layer that is to be formed over the first conductive layer in each of the independent claims. As pointed out by appellants (Brief, page 7), insulating layer 413/414 is used as a color filter by Fukunaga. If one were to make the second conductive layer (or pixel electrode) reflective, as suggested by the examiner (Answer, page 4) to make the device reflective, the color filter layer would no longer be functional, as light would be reflected before reaching the color filter layer. The Federal Circuit has held that "a proposed modification [is] inappropriate for an obviousness inquiry when the modification render[s] the prior art reference inoperable for its intended purpose. *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)." *In re Fritch*, 972 F.2d 1260, 1265-1266 n.12, 23 USPQ2d 1780, 1783 n.12 (Fed. Cir. 1992). Therefore, we cannot accept the examiner's proposed modification of Fukunaga. Since all of the examiner's rejections depend upon this modification, we cannot sustain any of the rejections.

CONCLUSION

The decision of the examiner rejecting claims 1, 2, 4, 5, 7, 9, 11, 12, 14, 18, 20 through 27, and 29 under 35 U.S.C. § 103 is reversed.

REVERSED

JERRY SMITH )  
Administrative Patent Judge )  
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 ) BOARD OF PATENT  
ANITA PELLMAN GROSS ) APPEALS  
Administrative Patent Judge ) AND  
 ) INTERFERENCES  
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STUART S. LEVY )  
Administrative Patent Judge )

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