

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HOWARD E. RHODES

Appeal No. 2002-0578
Application No. 09/190,055¹

ON BRIEF

Before PAK, WARREN, and DELMENDO, Administrative Patent Judges.

PAK, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the examiner's refusal to allow claims 1, 2, 4-71, 99 and 100, which are all the claims pending in this application.

¹ Application for patent filed November 12, 1998.

APPEALED SUBJECT MATTER

The subject matter on appeal is directed toward a CMOS imaging device and its use in generating output signals corresponding to an image focused on a sensor array. The output signal is generated by transferring charge from a floating diffusion region of an activated sensor to an output transistor. The charge is transferred via a buried conductor that forms the output transistor and an interconnect portion that “extends over and is formed in contact with” a **field oxide** that separates the output transistor from the floating diffusion region. Additional details of the claimed subject matter are provided in representative claims 18 and 31 reproduced below:

18. An imaging device comprising:

a semiconductor integrated circuit substrate;

a photosensitive device formed on said substrate for accumulating photo-generated charge in an underlying region of said substrate;

a floating diffusion region in said substrate for receiving said photo-generated charge;

a readout circuit comprising at least an output transistor formed in said substrate;
and

said floating diffusion region being connected to said output transistor via an interconnect portion that extends over and is formed in contact with a field oxide located between said floating diffusion region and said output transistor.

31. A method for generating output signals corresponding to an image focused on a sensor array having rows and columns of pixel sensors, the method comprising:

sequentially activating each row of sensors of said array for a period of time;

resetting the voltage of a node of an activated sensor to a first predetermined voltage by a reset transistor;

The examiner's Sections 102 and 103 rejections are premised upon, inter alia, interpreting the claimed "field oxide" as including the insulation oxide layer described in the admitted prior art or Merrill. The dispositive question is, therefore, whether the examiner has properly interpreted the claimed "field oxide" as including the insulation layer described in the admitted prior art and Merrill. On this record, we answer this question in the negative.

As argued by the appellant (e.g., Reply Brief, page 5), both the specification and Merrill clearly distinguish the claimed "field oxide" from the "insulating layer" relied upon by the examiner.² See the specification, pages 12-13, 20 and 22 and Merrill, column 4, lines 55-67 and column 5, lines 1-9. In fact, Merrill teaches away from forming any field oxide in its imaging device. See column 6, lines 35-40. It follows that the prior art relied upon by the examiner does not teach or suggest forming an interconnect portion in contact with and extending above a field oxide as required by the claims on appeal. Accordingly, the examiner, on this record, has not established a prima facie case of unpatentability under Sections 102 and 103.

² See In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1321-22 (Fed. Cir. 1989) ("When the applicant states the meaning that the claim terms are intended to have, the claims are examined with that meaning, in order to achieve a complete exploration of the applicant's invention and its relation to the prior art").

Appeal No. 2002-0578
Application No. 09/190,055

CONCLUSION

In view of the foregoing, the decision of the examiner is reversed.

TIME PERIOD

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

REVERSED

CHUNG K. PAK)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
CHARLES F. WARREN)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
ROMULO H. DELMENDO)	
Administrative Patent Judge)	

CKP:hh

Appeal No. 2002-0578
Application No. 09/190,055

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