

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte ADAM R. BROWN, DAGOBERT M. DE LEEUW,  
EDSKO E. HAVINGA, and COLIN P. JARRETT

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Appeal No. 2000-0834  
Application No. 08/798,679

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ON BRIEF

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Before FLEMING, GROSS, and SAADAT, Administrative Patent Judges.  
GROSS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 2 through 4 and 6 through 9, which are all of the claims pending in this application.

Appellants' invention relates to an electrical memory element which has between two electrodes a layer of an organic conjugated compound formed of a soluble polymer or oligomer and a dopant that is capable by a redox reaction of changing the oxidation state of the organic compound. Claim 9 is illustrative of the claimed invention, and it reads as follows:

9. A write once-read many electrical memory element which comprises two electrodes between which electrodes a layer of a material containing an organic conjugated compound is sandwiched,

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characterized in that the layer comprises a dopant capable, by a redox reaction of changing the oxidation state of the organic conjugated compound, the material is soluble, the organic conjugated compound is a polymer or an oligomer, and the electroconductivity of the layer in a written state is permanently lower than in an unwritten state.

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

Marrocco, III (Marrocco)	4,945,257	Jul. 31, 1990
Atkins	EP 0,115,191	Aug. 08, 1984

Claims 2 through 4 and 6 through 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Marrocco in view of Atkins.

Reference is made to the Examiner's Answer (Paper No. 23, mailed January 11, 2000) for the examiner's complete reasoning in support of the rejections, and to appellant's Brief (Paper No. 22, filed November 18, 1999) and Reply Brief (Paper No. 24, filed March 13, 2000) for appellant's arguments thereagainst.

#### OPINION

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by appellant and the examiner. As a consequence of our review, we will reverse the obviousness rejection of claims 2 through 4 and 6 through 9.

Regarding sole independent claim 9, the examiner asserts (Answer, page 3) that "Marrocco teaches an organic material based

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memory element wherein the material switches like a 'fuse' from a low resistance to a high resistance to form a ROM type device." The examiner further states that "Atkins teaches an organic based conjugated material including a dopant which similarly switches from a low resistance to a high resistance to form a 'fuse'." The examiner concludes that it would have been obvious to "apply the doped conjugated organic 'fuse' material of Atkins in a memory array as Marrocco to form a desireable [sic] ROM 'fuse' type memory device," since a ROM is "an obvious application of a known 'fuse' material."

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is required to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). Such determinations include the scope and content of the prior art and differences between the prior art and the claims at issue. Further, under *Graham* the examiner must provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally

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available to one having ordinary skill in the art. **Uniroyal, Inc. v. Rudkin-Wiley**, 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), *cert. denied*, 488 U.S. 825 (1988). These showings by the examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. Note **In re Oetiker**, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Furthermore, "[t]hat knowledge can not come from the applicant's invention itself." **Oetiker**, 977 F.2d at 1447, 24 USPQ2d at 1446.

The examiner has provided no evidence that a ROM is an obvious application of a fuse material, nor any teaching or suggestion in the prior art why the skilled artisan would have been motivated to substitute materials of Atkins' fuse for the electrolyte layer of Marrocco's memory element. Thus, the examiner has failed to establish a *prima facie* case of obviousness. Consequently, we cannot sustain the rejection of claim 9 or its dependents, claims 2 through 4 and 6 through 8.

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CONCLUSION

The decision of the examiner rejecting claims 2 through 4 and 6 through 9 under 35 U.S.C. § 103 is reversed.

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

MICHAEL R. FLEMING	)	
Administrative Patent Judge	)	
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	)	BOARD OF PATENT
ANITA PELLMAN GROSS	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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MAHSHID D. SAADAT	)	
Administrative Patent Judge	)	

apj/vsh

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