

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. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRANCIS G. CELII, ALAN J. KATZ,
YUNG-CHUNG KAO, and THEODORE S. MOISE

Appeal No. 2000-1801
Application No. 08/667,660

HEARD: March 19, 2002

Before CAROFF, LIEBERMAN, and PAWLIKOWSKI, Administrative Patent Judges.

CAROFF, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 11-16, all the claims remaining in the appellants' application.

The claims relate to an apparatus for growing layers on the surface of a wafer by molecular beam epitaxy (MBE).

While we have considered each of the claims separately, claim 11, the sole independent claim, is reproduced below as illustrative of the subject matter on appeal:

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11. An apparatus for molecular beam epitaxy layer growth by using a process model of non-thickness data having model data relating to layer growth, comprising:

a MBE growth chamber for directing a first beam of a first growth species at a wafer in a growth chamber to grow a first layer of said first growth species;

a mass spectrometer for measuring the flux of the reflection of said first beam from said wafer to obtain a first thickness measurement of said first layer;

a controller for comparing said first thickness measurement with said process model of non-thickness data based on said model data relating to said layer growth and to obtain second target thickness of a second layer to be grown;

said MBE growth chamber directing a beam of a second growth species at said wafer in said growth chamber; and

said MBE growth chamber terminating said second beam of said second growth species when said second target thickness has been reached in response to said controller.

All of the appealed claims stand rejected for obviousness under 35 USC § 103 based upon the following single prior art reference:¹

Celii et al. (Celii) 5,399,521 March 21, 1995
(filing date: Oct. 8, 1993)

Based upon the record before us, we agree with the appellants that the examiner has failed to establish a prima facie case to support the rejection which has been applied against the appealed

¹ We note that in a related case (Appeal No. 98-1956), a distinct ground of rejection was applied against a group of method claims.

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claims. Accordingly, we shall reverse that rejection for the following reasons.

A key feature of the claimed apparatus is embodied in the following limitation:

“. . . a controller for comparing said first thickness measurement with said process model of non-thickness data based on said model data relating to said layer growth and to obtain second target thickness of a second layer to be grown; . . . ”

The disposition of this appeal depends upon the interpretation which is to be given to this limitation. In our view, a proper construction of the language in question is governed by the provisions of the sixth paragraph of 35 USC § 112. These provisions require that an element in a claim (the controller here), which is expressed as a means for performing a specified function, shall be construed as being limited to the corresponding structure described in the specification and equivalents thereof. Cf. Mas-Hamilton Group, Inc. v. La Gard Inc., 156 F.3d 1206, 1213, 48 USPQ 2d 1010, 1016-17 (Fed. Cir. 1998) (absence of the catch phrase “means for” does not prevent a limitation from being construed as a means-plus-function limitation in accordance with section 112, paragraph 6); In re Donaldson Co., 16 F.3d 1189, 1194-95, 29 USPQ 2d 1845, 1850 (Fed. Cir. 1994).

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Referring to appellants' specification to identify the corresponding structure that performs the function specified in the claims, we construe the "controller for . . ." to include a computer (or equivalent) programmed to perform as claimed. See page 5 of the specification. There is no dispute that the prior art Celii reference does not teach or suggest a computer specifically programmed to perform the particular functions defined by appellants' claims. The computer-controller of the Celii reference may be capable of being so programmed, but this is not tantamount to a disclosure of the same programming mode. In this regard, a programmed computer is considered to be physically different than the same computer without that program. In re Bernhart, 417 F.2d 1395, 1400, 163 USPQ 611, 616 (CCPA 1969).

Looked at another way, the claim limitation in question is not merely a statement of the intended use of the controller but, rather, breathes life, meaning, and vitality into the claim since there is direct and specific linkage in the claim between the recited function of the controller and the limitation relating to termination of the second growth species beam in response to the calculation of a second target thickness by the controller. In this regard, see Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 480-81 (CCPA 1951). Accordingly, the functional limitations

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included in appellants' apparatus claims must be given full weight in this case, and may not be disregarded in evaluating the patentability of the subject matter so defined.

For the foregoing reasons, the decision of the examiner is reversed.

REVERSED

MARC L. CAROFF)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
PAUL LIEBERMAN)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
BEVERLY A. PAWLIKOWSKI)	
Administrative Patent Judge)	

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JUDGE CAROFF

APPEAL NO. 2000-1801

APPLICATION NO. 08/667,660

APJ CAROFF

APJ LIEBERMAN

APJ PAWLIKOWSKI

DECISION: **REVERSED**

PREPARED: Jun 6, 2003

OB/HD

PALM

ACTS 2

DISK (FOIA)

REPORT

BOOK