

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte CHI-I LANG, SHIN-PUU JENG, YEMING JIM MA, FONG CHANG,  
PETER WAI-MAN LEE, and DAVID W. CHEUNG

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Appeal No. 2003-1007  
Application No. 09/336,368

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ON BRIEF

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Before OWENS, DELMENDO, and PAWLIKOWSKI, Administrative Patent Judges.

DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 (2002) from the examiner's refusal to allow claims 21, 22, and 24 through 26 (final Office action mailed Nov. 6, 2001, paper 8), which are the only claims pending in the above-identified application.

The subject matter on appeal relates to a process for depositing a copolymer material on a substrate. Further details of this appealed subject matter are recited in representative

claim 21, the only independent claim on appeal, reproduced below:

21. A process for depositing a copolymer material, comprising:

activating p-xylylene, or a derivative thereof, and a comonomer having at least two carbon-carbon double bonds and at least one Si-O bond, at a constant RF power level from about 10W to about 80W;

condensing the p-xylylene and the comonomer on a substrate; and

polymerizing a copolymer layer on the substrate, wherein the copolymer layer comprises at least 1% by weight of polymerized comonomer.

The examiner relies on the following prior art references as evidence of unpatentability:

Spaulding	3,900,600	Aug. 19, 1975
Lee et al. (Lee)	6,051,321	Apr. 18, 2000 (filed Oct. 24, 1997)
Gomi	6,130,171	Oct. 10, 2000 (filed Nov. 17, 1998)

Claims 21, 22, and 24 through 26 on appeal stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite.

(Examiner's answer mailed Jan. 8, 2003, paper 17, pages 4-6.)

Also, claims 21 and 24 through 26 on appeal stand rejected under 35 U.S.C. § 103(a) as unpatentable over Lee in view of Spaulding or Gomi. (Id. at page 6.) Further, claim 22 on appeal stands rejected under 35 U.S.C. § 103(a) as unpatentable over Lee in view of Gomi. (Id.)

We reverse these rejections for the reasons set forth in the appellants' briefs.

35 U.S.C. § 112, ¶2

The examiner criticizes the language of claim 21 for several reasons (answer, pages 4-6), but we do not find any of them sufficient to establish a prima facie case of indefiniteness.

The examiner argues that "what is condensed is not clearly related to a 'copolymer layer; i.e., has no necessary or positively claimed relationship [sic]..." (Answer, page 4.) We disagree. Appealed claim 21, when read in light of the specification (page 5, lines 28-31 and page 27, lines 25-26), reasonably apprises one skilled in the relevant art that the p-xylylene and the comonomer are condensed on a substrate and then polymerized to form a copolymer layer on the substrate. In this regard, we remind the examiner that the test for definiteness under 35 U.S.C. § 112, second paragraph, is whether one skilled in the art would understand the bounds of the claim when read in light of the specification. Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). That is, a claim complies with the second paragraph of section 112 if, when read in light of the specification, it reasonably apprises those skilled in the art of the scope of the

invention. Hybritech Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1385, 231 USPQ 81, 94 (Fed. Cir. 1986).

The examiner also argues that "the claims still fail to particularly point out and distinctly claim how the RF power is used in the activating step." (Answer, page 5.) This argument is also unpersuasive. Appealed claim 21 recites a process in which the RF power level is from about 10W to about 80W. Other than what is expressly recited, appealed claim 21 places no limitation on "how" the RF power is used in the activation step. This, of course, does not raise any issue of indefiniteness. In re Goffe, 526 F.2d 1393, 1398, 188 USPQ 131, 135 (CCPA 1975).

For these reasons, we cannot uphold the examiner's rejection on this ground.

35 U.S.C. § 103(a)

The examiner's prior art rejections based on Lee as a primary reference are premised on the belief that the aromatic groups on Lee's siloxane derivatives (column 8, lines 12-40) contain "carbon-carbon double bonds," as required by appealed claim 21. (Answer, pages 6 and 11.) But as pointed out by the appellants (substitute appeal brief filed Sep. 3, 2002, paper 16, page 4; reply brief filed Mar. 7, 2003, paper 18, page 3), it has long been established that aromatic rings such as benzene contain carbon-carbon bonds which are intermediate between single and

double bonds. Robert T. Morrison & Robert N. Boyd, Organic Chemistry 579-83 (4<sup>th</sup> ed. 1983). Accordingly, Lee does not disclose or suggest the comonomer recited in appealed claim 21.

While Gomi teaches a copolymer of tetravinyl-tetramethyl-cyclotetrasiloxane and parylene-N (column 7, lines 13-18), this reference, like Spaulding, does not disclose or suggest the use of RF power. Instead, Gomi teaches the use of a pyrolizer. (Column 3, line 62 to column 4, line 35.)

The examiner alleges that thermal polymerization deposition is equivalent to deposition in which RF power is used. (Answer, page 9.) We note, however, that the examiner has not identified any evidence to support this allegation. Contrary to the examiner's stated position, Lee, Gomi, and Spaulding do not suggest the equivalence of thermal polymerization deposition to RF deposition. Quite oppositely, Lee admonishes one skilled in the relevant art that the monomer vapors may be deposited by "cold dissociation" methods but not by methods that "appreciably heat the precursors." (Column 12, lines 2-8.)

For these reasons, we cannot affirm.

#### Summary

In summary, we reverse the examiner's rejections under: (i) 35 U.S.C. § 112, second paragraph, of appealed claims 21, 22, and

Appeal No. 2003-1007  
Application No. 09/336,368

24 through 26 as indefinite; (ii) 35 U.S.C. § 103(a) of appealed claims 21 and 24 through 26 as unpatentable over Lee in view of Spaulding or Gomi; and (iii) 35 U.S.C. § 103(a) of appealed claim 22 as unpatentable over Lee in view of Gomi.

The decision of the examiner is reversed.

REVERSED

Terry J. Owens	)	
Administrative Patent Judge	)	
	)	
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	)	BOARD OF PATENT
Romulo H. Delmendo	)	
Administrative Patent Judge	)	APPEALS AND
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	)	INTERFERENCES
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	)	
Beverly A. Pawlikowski	)	
Administrative Patent Judge	)	

RHD/dal

Appeal No. 2003-1007  
Application No. 09/336,368

APPLIED MATERIALS INC  
2881 SCOTT BLVD M/S 2061  
SANTA CLARA CA 95050