

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte MARK E. BAIER, ROBERT D.  
MILLER and GREGORY M. WALLRAFF

---

Appeal No. 95-1326  
Application 08/078,808<sup>1</sup>

---

ON BRIEF

---

Before RONALD H. SMITH, PAK and WARREN, Administrative Patent Judges.

RONALD H. SMITH, Administrative Patent Judge.

**DECISION ON APPEAL**

This is an appeal from the final rejection of claims 1-6, all the pending claims in the application.

The subject matter relates to a method for forming a positive tone resist image in a film of poly(C<sub>2</sub>-C<sub>12</sub> alkylphenyl)

---

<sup>1</sup> Application for patent filed June 17, 1993. According to appellants, the application is a continuation of Application 07/981,903, filed November 23, 1992, now abandoned, which is a continuation of Application 07/664,259, filed March 4, 1991, now abandoned.

Appeal No. 95-1326  
Application 08/078,808

silane. Claim 1, the only independent claim, is illustrative of the appealed claims and reads as follows:

1. A process for generating a positive tone resist image in a film of poly(C<sub>2</sub>-C<sub>12</sub> alkylphenyl) silane comprising the steps of (a) forming a film of poly(C<sub>2</sub>-C<sub>12</sub> alkylphenyl) silane; (b) imagewise exposing the film to radiation at a wavelength of about 200-500 nm. and (c) developing the image.

Claims 1-6 stand rejected under 35 USC § 103 over seven references listed in the answer and in the brief. We reverse.

Appellants admit that the prior art discloses polysilanes for use as a photoresist and teaches (methyl phenyl) silane as the closest prior art compound for use as a photoresist. On page 5 of the brief, appellants concede that the examiner has established a prima facie case of obviousness in view of the prior art references. However, appellants urge that they have submitted experimental comparative data which demonstrates that the claimed process possesses an unexpected degree of effectiveness compared to the closest compound disclosed by the prior art. It is appellant's position that the comparative data is sufficient to rebut the prima facie case of obviousness. We agree.

The examiner acknowledges on page 7 of the answer that the evidence "shows an unexpected result for the polymers of the

Appeal No. 95-1326  
Application 08/078,808

instant invention ... as compared to the prior art polymers." However, the examiner points out that the comparative evidence utilizes a wavelength of exposure of 254 nm., whereas claim 1 recites exposing at a wavelength of about 200-500 nm. It is the examiner's position that the evidence presented by appellants is not commensurate in scope with the claims.

After carefully considering the examiner's position, we have decided that the comparative evidence is sufficient to rebut the prima facie case of obviousness. As noted by the Court in In re Chupp, 816 F.2d 643, 646, 2 USPQ2d 1437, 1439 (Fed. Cir. 1987), it is not required that a compound "must produce superior results in every environment in which the compound may be used". Rather, evidence that a compound is unexpectedly superior in one of a spectrum of properties, as here, can be sufficient to rebut a prima facie case of obviousness. Appellants have demonstrated the superiority of the claimed compounds for use as photoresists.

Appeal No. 95-1326  
Application 08/078,808

The decision of the examiner is reversed.

**REVERSED**

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

Appeal No. 95-1326  
Application 08/078,808

Robert B. Martin  
IBM Corporation  
Department K02/802  
650 Harry Road  
San Jose, CA 95120-6099