

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(2) is not binding precedent of the Board.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. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte CHENGJIU, WU,  
MICHAEL J. MCFARLAND  
and KARL W. BEESON

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Appeal No. 1997-0704  
Application 08/324,855

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ON BRIEF/HEARD: MARCH 6, 2000

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Before GARRIS, OWENS and WALTZ, Administrative Patent Judges.  
WALTZ, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal pursuant to 35 U.S.C. § 134 from the  
examiner's refusal to allow claims 35, 37 through 48 and  
51 through 54 as amended subsequent to the final rejection  
(see the amendment dated Jan. 4, 1996, Paper No. 15, entered  
as per the Advisory Action dated Jan. 23, 1996, Paper No. 16,

Appeal No. 1997-0704  
Application No. 08/324,855

which states that the final rejection under § 112 for "new matter" is overcome by entry of this amendment). Claims 28 through 34, the only other claims remaining in this application, stand withdrawn from further consideration by the examiner (Brief, page 3).

According to appellants, the invention is directed to a combination of specified monomer classes to achieve a thermal stabilization of an optically transparent waveguide such that the waveguide exhibits much less yellowing, cracking and delamination from the substrate (Brief, page 6). Claim 35 is illustrative of the subject matter on appeal and a copy of this claim is attached as an Appendix to this decision.

The examiner has relied upon the following references to support the rejections on appeal:

Dueber et al. (Dueber) 1986	4,613,560	Sep. 23,
Kistner 1986	4,623,676	Nov. 18,
Klun et al. (Klun) 1990	4,956,265	Sep. 11,
Moyer et al. (Moyer) 1992	5,136,682	Aug. 4,
McKeever et al. (McKeever) 1994	5,288,589	Feb. 22,

(filed Dec. 3,

Appeal No. 1997-0704  
Application No. 08/324,855

1992)

Claims 35 and 37-48 stand rejected under 35 U.S.C. § 102(b) as anticipated by Dueber (Answer, page 4). Claims 35 and 37-48 stand rejected under 35 U.S.C. § 102(e) as anticipated by Moyer (Id.). Claims 35, 37-41, 45-48 and 51-54 stand rejected under 35 U.S.C. § 102(e) as anticipated by McKeever (Id.). Claims 35, 37-48 and 51-54 stand rejected under 35 U.S.C.

Appeal No. 1997-0704  
Application No. 08/324,855

§ 103 as unpatentable over Moyer in view of Klun (Answer, page 5). Claims 35, 37-48 and 51-54 stand rejected under 35 U.S.C.

§ 103 as unpatentable over Dueber in view of Klun (Answer, page 6). Claims 35, 37-41, 45-48 and 51-54 stand rejected under

35 U.S.C. § 103 as unpatentable over McKeever (Answer, page 7). Claims 35, 37-48 and 51-54 stand rejected under 35 U.S.C.

§ 103 as unpatentable over Kistner in view of Klun (Answer, page 8). We reverse all of the examiner's rejections for reasons which follow.

#### OPINION

##### A. The Rejections under § 102

"To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either expressly or inherently." Glaxo Inc. v. Novopharm Ltd., 52 F.3d 1043, 1047, 34 USPQ2d 1565, 1567 (Fed. Cir. 1995); see also In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986); Kalman v. Kimberley-Clark Corp., 713 F.2d 760, 771, 218 USPQ 781, 789 (Fed. Cir. 1983). The examiner bears the initial

Appeal No. 1997-0704  
Application No. 08/324,855

burden, on review of the prior art, of presenting a prima facie case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

The examiner states, for each rejection under § 102, that "[i]t is inherent that when the prior art method step is the same as the claimed method performed with the same composition then the prior art has the same properties as is claimed." (Answer, pages 3-4). However, the examiner has not met the initial burden of establishing that the prior art discloses the same composition as the method of claim 35 on appeal.

The examiner finds that Dueber teaches the specific unsaturated monomers recited in the method of appellants' claims, citing column 7, line 7-column 8, line 53 (Answer, page 4). Although Dueber does list some monomers from the first class of "unsaturated" monomers recited in claim 35 on appeal, the examiner has not pointed to any monomers listed by Dueber that are included in the second class of "ethylenically unsaturated monomer" recited in claim 35 on appeal,<sup>1</sup> much less in the amounts recited in the claimed method. Furthermore, the mere listing of a long list of monomers, as in Dueber, has not been shown by the examiner to "describe" the claimed

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<sup>1</sup>The only bisphenol-A type monomers listed by Dueber do not fall within the second class of monomers listed in claim 35 on appeal (see Dueber, column 7, lines 42-45).

Appeal No. 1997-0704  
Application No. 08/324,855

subject matter on appeal within the meaning of 35 U.S.C. § 102. The reference must clearly and unequivocally disclose the claimed subject matter or direct those skilled in the art to the claimed subject matter without any need for picking, choosing and combining various disclosures not directly related to each other by the teachings of the cited reference. In re Arkley, 455 F.2d 586, 587, 172 USPQ 524, 526 (CCPA 1972); see also In re Ruschig, 343 F.2d 965, 974, 145 USPQ 274, 282 (CCPA 1965). For the foregoing reasons, the rejection of claims 35 and 37-48 under § 102(b) over Dueber is reversed.

The examiner finds that Moyer teaches "the claimed method including the specific unsaturated monomers," citing column 8, lines 10-50 and Examples 1-3 (Answer, page 4). Moyer, which is the only prior art applied which is directed to waveguides, teaches increased stability of waveguides at elevated temperatures by forming the waveguides from polymerizable compositions including "at least one" polyfunctional unsaturated monomer listed at column 8, lines 34-50 (see column 1, lines

Appeal No. 1997-0704  
Application No. 08/324,855

8-11; column 4, lines 1-12; and column 8, lines 10-19). This list of polyfunctional unsaturated monomers includes monomers from each class recited in claim 35 on appeal. Examples 1-3 cited by the examiner do not show polymerizable compositions with one monomer from each class recited in the claimed method on appeal.<sup>2</sup> Therefore, the examiner has not met the initial burden of establishing that the reference clearly and unequivocally discloses the claimed method without any need for picking, choosing and combining various disclosures from the generic list of monomers at column 8 of the reference, including the amount of the second class of monomer as recited in claim 35 on appeal. See Arkley, supra. Accordingly, the rejection of claims 35 and 37-48 under § 102(e) over Moyer is reversed.

The examiner also finds that McKeever teaches the claimed method "including the specific unsaturated monomers" (Answer, page 5, citing column 8, lines 15-63 and column 16, lines 47-

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<sup>2</sup>On this record, there is no evidence that Novacure 3700, employed by Moyer in Examples 1-3, is the same monomer as recited in claim 35 on appeal, i.e., Novacure 3700 is not disclosed as a diacrylate and has epoxide functionalities rather than the claimed ethoxylated/propoxylated groups.

Appeal No. 1997-0704  
Application No. 08/324,855

57). The cited disclosure of McKeever lists a disclosure of monomers which "can be used as the sole monomer or in combination with others" (column 8, lines 28-29). However, this generic disclosure of McKeever does not list monomers from each class as required by the claims on appeal.<sup>3</sup> McKeever does disclose an ethoxylated bisphenol A diacrylate used in the specific examples (column 16, lines 54-55). However, the examiner has not established how this specific listing of a monomer "clearly and unequivocally" discloses the combination of this specific monomer with a monomer from the first class of monomers in the method of claim 35 on appeal, much less in the amounts recited in the claimed method. See Arkley, supra. The examiner has not pointed to any examples in McKeever which combine monomers from the two classes recited in claim 35 on appeal, in the amounts recited in the claimed method. Accordingly, the rejection of claims 35, 37-41, 45-48 and 51-54 under § 102(e) over McKeever is

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<sup>3</sup>The specific bisphenol-A monomers recited in claim 35 on appeal are not listed in the generic disclosure of McKeever, who instead lists various tetrachloro-/tetrabromo-bisphenol-A ethers and "bisphenol A diacrylate" (column 8, lines 36-41 and 50-51).

Appeal No. 1997-0704  
Application No. 08/324,855

reversed.

B. The Rejections under § 103

The examiner has combined Klun with each of Dueber and Moyer to support two of the rejections under § 103, with Klun cited to show the use of stabilizers in acrylate compositions as recited in claims 51-54 on appeal (Answer, pages 6 and 12). Therefore Klun does not remedy the deficiencies discussed above with respect to Dueber and Moyer (McKeever is applied alone under § 103 and the following remarks also pertain to this rejection). Accordingly, the examiner has not met the initial burden of establishing a prima facie case of obviousness merely by citing a list of monomers in each reference which is generic to the combination of monomers from two classes as recited in claim 35 on appeal. See In re Baird, 16 F.3d 380, 383, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994); In re Jones, 958 F.2d 347, 351, 21 USPQ2d 1941, 1943 (Fed. Cir. 1992).

The remaining rejection under § 103 not discussed above is based on Kistner in view of Klun (with Klun applied, as

Appeal No. 1997-0704  
Application No. 08/324,855

previously noted, to show the conventional use of stabilizers and antioxidants as recited in claims 51-54 on appeal). The examiner finds that Kistner teaches the claimed method "including the specific ethylenically unsaturated monomers" (Answer, page 8, citing column 4, lines 17-66). Again we note that Kistner discloses "at least one polymerizable acrylic compound" while listing many examples (column 4, line 22, with the examples at column 4, lines 29-49). Included in this list are monomers from each class of monomers recited in claim 35 on appeal. However, Kistner does not teach that the monomers recited in claim 35 on appeal are preferred (column 4, lines 50-66); does not exemplify any monomers from the second class; does not exemplify any combinations of monomers from each class as recited in claim 35 on appeal; and does not disclose/suggest the recited amount of the second class of monomers as found in claim 35 on appeal. The examiner has not met the initial burden of establishing the

Appeal No. 1997-0704  
Application No. 08/324,855

prima facie case of obviousness by merely citing the generic disclosure of Kistner. See Baird, supra.

For the foregoing reasons, all of the examiner's rejections under § 103 are reversed.

C. Summary

The rejection of claims 35 and 37-48 under § 102(b) over Dueber is reversed. The rejection of claims 35 and 37-48 under § 102(e) over Moyer is reversed. The rejection of claims 35, 37-41, 45-48 and 51-54 under § 102(e) over McKeever is reversed. The rejection of claims 35, 37-48 and 51-54 under § 103 over Moyer in view of Klun is reversed. The rejection of claims 35, 37-48 and 51-54 under § 103 over Dueber in view of Klun is reversed. The rejection of claims 35, 37-41, 45-48 and 51-54 under § 103 over McKeever is reversed. The rejection of claims 35, 37-48 and 51-54 under § 103 over Kistner in view of Klun is reversed.

Appeal No. 1997-0704  
Application No. 08/324,855

The decision of the examiner is reversed.

REVERSED

	)	
BRADLEY R. GARRIS	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
TERRY J. OWENS	)	)
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
THOMAS A. WALTZ	)	
Administrative Patent Judge	)	

TAW:hh

Appeal No. 1997-0704  
Application No. 08/324,855

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APPENDIX

35. A method of thermally stabilizing an optically transparent waveguide, which waveguide comprises a patterned photopolymer on a substrate formed by photopolymerizing a photopolymerizable composition, the photopolymerizable composition comprising one or more unsaturated monomers selected from the group consisting of 1,6-hexanediol diacrylate, trimethylolpropane triacrylate, pentaerythritol triacrylate, ethoxylated trimethylolpropane triacrylate, glyceryl propoxylated triacrylate, pentaerythritol tetraacrylate, dipentaerythritol pentaacrylate and di(trimethylolpropane)tetracrylate, and at least one photoinitiator capable of activating polymerization of said monomers when said photopolymerizable composition is exposed to actinic radiation the method comprising incorporating into said photopolymerizable composition from about 35% to about 99.9% by weight of the photopolymerizable composition of at least one ethylenically unsaturated monomer selected from the group consisting of ethoxylated bisphenol A diacrylate, ethoxylated hexafluorobisphenol A diacrylate, and propoxylated bisphenol A diacrylate wherein said photopolymer exhibits a coloration on the Gardner Color Scale equal to or less than 8 as determined by ASTM D1544-80 upon exposure to a temperature of 190°C in air for 24 hours.