

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHN D. MOON, GEORGE F. VESLEY
and LOUISE A. ZIEGLER

Appeal No. 1996-1782
Application 08/131,036¹

HEARD: NOVEMBER 15, 1999

Before KIMLIN, OWENS and SPIEGEL, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ Application for patent filed October 4, 1993. According to appellants, the application is a continuation of Application 07/871,386, filed April 21, 1992, now abandoned, which is a continuation-in-part of Application 07/820,057, filed January 16, 1992, now abandoned, which is a continuation-in-part of Application 07/662,122, filed February 28, 1991, now abandoned.

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This is an appeal from the examiner's final rejection of claims 1-20, 22-26, 28 and 29, which are all of the claims remaining in the application.

THE INVENTION

Appellants claim a process for producing an acrylic-based composition wherein about 5-70 wt% conversion of a specified monomer mixture or partially prepolymerized syrup to an acrylic copolymer is obtained in an irradiation stage at a recited relatively low radiation intensity, and then at least substantially complete conversion is achieved at a recited higher intensity. Appellants state that the multi-stage irradiation process increases the speed, relative to a one-step irradiation process, at which acrylic-based compositions such as adhesives and acrylic-based pressure sensitive adhesive tapes having acceptable properties are produced.

Claim 1 is illustrative and reads as follows:

1. A multi-stage irradiation process for the production of an acrylic-based composition comprising the sequential steps of:

(a) forming a solvent-free monomeric mixture or solvent-free partially prepolymerized syrup comprising:

(i) about 50-100 parts by weight of at least one acrylic acid ester of an alkyl alcohol, said alcohol

containing from 1 to 14 carbon atoms;

(ii) about 0-50 parts by weight of at least one copolymerizable monomer; and

(iii) a photoinitiator;

(b) irradiating the resulting monomeric mixture or partially prepolymerized syrup with electromagnetic radiation of from about 280 to 500 nanometers wavelength and from .01 to 20 milliwatts per centimeter squared (mW/cm^2) average light intensity to effect conversion of from about 5-70 weight % of said monomeric mixture or partially prepolymerized syrup to an acrylic copolymer; and

(c) thereafter, further irradiating the resulting acrylic copolymer resulting from step (b) with electromagnetic radiation of from about 280 to 500 nm wavelength and having an average light intensity of greater than $20\text{mW}/\text{cm}^2$ to at least substantially complete the polymerization reaction of said acrylic copolymer.

THE REFERENCES

Martens et al. (Martens)	4,181,752	Jan. 1, 1980
Bartissol et al. (Bartissol)	4,404,073	Sep. 13, 1983
Yada et al. (Yada)	4,762,862	Aug. 9, 1988
Nakasuga (Nakasuga '981)	2-60981	Mar. 1, 1990
Nakasuga (Nakasuga '180)	2-110180	Apr. 23, 1990

THE REJECTIONS

Claims 1-20, 22-26, 28 and 29 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-18 and 20-24 of copending Application 08/131,037. These claims also stand rejected

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under 35 U.S.C. § 103 as being unpatentable over Martens considered with one of Nakasuga '981, Nakasuga '180, Yada and Bartissol.

OPINION

Appellants do not challenge the provisional obviousness-type double patenting rejection (brief, page 5). We therefore summarily affirm this rejection.

As for the rejection under 35 U.S.C. § 103, we have carefully considered all of the arguments advanced by appellants and the examiner and agree with the examiner that appellants' claimed invention is unpatentable over the applied prior art. We affirm the aforementioned rejection. However, because our rationale differs substantially from that of the examiner, we denominate the affirmance as involving a new ground of rejection under 37 CFR § 1.196(b).

Appellants state that the claims stand or fall together (brief, page 9). We therefore limit our discussion to one claim, namely, claim 1. See *In re Ochiai*, 71 F.3d 1565, 1566 n.2, 37 USPQ2d 1127, 1129 n.2 (Fed. Cir. 1995); 37 CFR § 1.192(c)(7)(1995).

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Nakasuga '981 discloses in comparative example 3 a multi-stage irradiation process for producing an acrylic based composition, including the sequential steps of forming a solvent-free mixture of 95 g of 2-ethyl hexyl acrylate and 5 g of acrylic acid, irradiating the mixture with electromagnetic radiation of 360 nm wavelength and 8 mW/cm² intensity to effect conversion of 75 wt% of the monomer mixture, and further irradiating the resulting acrylic copolymer with electromagnetic radiation of 360 nm wavelength and 25 mW/cm² intensity to obtain a conversion of as high as 99.9 wt% (table 2).

Appellants argue that this comparative example differs from appellants' claimed invention because the conversion in the first stage is 75 wt% whereas it is only 5 to 70 wt% in appellants' claimed process.

Actually, the first stage conversion in appellants' claim 1 is about 5-70 wt%. We give the term "about 5-70 wt%" its broadest reasonable interpretation in view of appellants' specification. See *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *In re Sneed*, 710 F.2d 1544, 1548,

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218 USPQ 385, 388 (Fed. Cir. 1983); *In re Herz*, 537 F.2d 549, 551, 190 USPQ 461, 463 (CCPA 1976); *In re Okuzawa*, 537 F.2d 545, 548, 190 USPQ 464, 466 (CCPA 1976). We do not find in the specification any indication that the term "about" applies only to "5" and not to "70". Thus, we consider the upper limit of appellants' recited first stage conversion to be about 70 wt%. We also do not find in the specification any indication that example 2, wherein the first stage conversion is 77.1 wt%, falls outside the scope of appellants' claim 1. When we give appellants' claim 1 its broadest reasonable interpretation in view of the specification, we conclude, therefore, that the upper limit of the first stage conversion encompasses a conversion of 75 wt%. Accordingly, we find that the process recited in appellants' claim 1 is anticipated by comparative example 3 of Nakasuga '981. Because anticipation is the epitome of obviousness, see *In re Skoner*, 517 F.2d 947, 950, 186 USPQ 80, 83 (CCPA 1975); *In re Pearson*, 494 F.2d 1399, 1402, 181 USPQ 641, 644 (CCPA 1974), we affirm the rejection under 35 U.S.C. § 103.

Even if there is some difference between "about 70" and

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"75", the difference is sufficiently small that *prima facie*, one of ordinary skill in the art would have reasonably expected a partially polymerized monomeric mixture having each conversion to have substantially the same properties. See *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 783, 227 USPQ 773, 779 (Fed. Cir. 1985). Thus, if there is any difference between "about 70" and "75", it would have been *prima facie* obvious to one of ordinary skill in the art, given comparative example 3 of Nakasuga '981, to use a first stage conversion of about 70 wt%. Consequently, we affirm the rejection under 35 U.S.C. § 103 for this additional reason.²

DECISION

The rejections of claims 1-20, 22-26, 28 and 29 under the judicially created doctrine of obviousness-type double patenting over claims 1-18 and 20-24 of copending Application 08/131,037 and under 35 U.S.C. § 103 over Martens considered with one of Nakasuga '981, Nakasuga '180, Yada and Bartissol,

² A discussion of Martens, Yada, Bartissol and Nakasuga '180 is not necessary to our decision.

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are affirmed. We denominate the affirmance under 35 U.S.C. § 103 as involving a new ground of rejection under 37 CFR § 1.196(b).

In addition to affirming the examiner's rejection of one or more claims, this decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b) (amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides, "A new ground of rejection shall not be considered final for purposes of judicial review."

Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

(b) Appellant may file a single request for rehearing within two months from the date of the original decision

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37

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CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Should the appellant elect to prosecute further before the Primary Examiner pursuant to 37 CFR § 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellant elects prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for reconsideration thereof.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED, 37 CFR § 1.196(b)

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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TERRY J. OWENS)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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CAROL A. SPIEGEL)	
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