

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. 32

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JEAN M. FRECHET  
CRAIG J. HAWKER and KATHRYN UHRICH

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Appeal No. 1997-3621  
Application 08/094,392

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ON BRIEF

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

WARREN, *Administrative Patent Judge*.

*Decision on Appeal and Opinion*

We have carefully considered the record in this appeal under 35 U.S.C. § 134, including the opposing view of the examiner, in the answer, and appellants, in the brief, and based on our review, find that we cannot sustain the rejection of appealed claims 1 through 28, all of the claims in the application, under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as being obvious over Kricheldorf et al. (Kricheldorf).<sup>1</sup> Indeed, the examiner has failed to make out a *prima facie* case of anticipation, *see, e.g., In re Spada*, 911 F.2d 705, 707-08, 15 USPQ2d 1655, 1657

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<sup>1</sup> Answer, pages 3-8.

(Fed. Cir. 1990), or of obviousness, *see, e.g., In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985), of these product-by-process claims. *See Id.*

The dispositive issue in this appeal is whether, as a matter of fact, the appealed claims which, as seen from independent product-by-process claims 1, 13 and 22, are drawn to a hyperbranched aromatic polyester polymer having at least 40% branching, encompass the branched poly(m-hydroxybenzoate) polymers having a molecular weight ranging from 10,000 to at least 28,900, and prepared from the bi-functional monomer 3-trimethylsiloxybenzoyl chloride and the tri-functional co-monomer 3,5-bis(trimethylsiloxy)benzoyl chloride in a mole ratio, wherein the monomer ranges from 20 through 160 and the co-monomer is no more than 1, that are disclosed in Nos. 1 through 4 in Table 7 of Kricheldorf (see pages 1827-29), but for which the percent branching is not disclosed. The examiner “takes the position that said degree of branching would be inherent in the prior art” compositions because said tri-functional monomer is encompassed by the appealed claims; the reaction temperature is within the range set forth in claim 1; a gaseous by-product is generated as set forth in claim 1; and the molecular weight falls within the appealed claims (answer, pages 6-7). Appellants submit that the examiner has not shown how the branched polymers of Kricheldorf meet the “key 40% branching limitation” and point out that the polymers are “primarily a linear polymer using a linear A-R-B monomer,” which is said bifunctional monomer, as “only minor mounts of A-R-B<sub>2</sub> co-monomer,” said tri-functional monomer, are used; that it has not been shown that there is any correspondence between molecular weight and branching; and that ¶ 6 of the Frechet declaration shows that the possible degree of branching of a polymer in Table 7 of Kricheldorf, regardless of molecular weight, is much less than 40% (brief, pages 2 and 6-7).<sup>2</sup> With respect to the Frechet declaration, the examiner merely concludes that the “opinionated declaration submitted does not lead one of ordinary skill in the art to an independent decision of there being a showing of clear and convincing unexpected results” without explaining this position vis-à-vis the evidence in ¶ 6 of the Frechet declaration (answer, page 8).

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<sup>2</sup> The Frechet declaration was filed in the present application on July 19, 1994 (Paper No. 19).

Based on the evidence in the record, we must agree with appellants that the examiner has failed to demonstrate that any of the branched polyester copolymers in Table 7 of Kricheldorf have at least 40% branching. Indeed, when the mole ratios favoring the bi-functional monomer by at least “5:1” are considered in light of equations “(1)” and “(3)” at page 1827 of Kricheldorf, it reasonably appears that the linear moieties “ $-(C-)_n-$ ” derived from this monomer would form much more than 60% of the polymer. On this basis, and in the absence of evidence or explanation to the contrary by the examiner, we must agree with Dr. Frechet’s analysis in ¶ 6 of his declaration. See also the present specification, paragraphs bridging pages 3-4 and 5-6.

Accordingly, as a matter of fact, none of the six branched polymers of Kricheldorf reasonably appears to be identical to those claimed and thus, this reference does not *prima facie* anticipate the claimed branched polymers. See *Spada*, 911 F.2d at 708-09, 15 USPQ2d at 1657-58. Furthermore, we find that Kricheldorf does not disclose any utility for the branched polymers and the examiner has not established on this record that one of ordinary skill in this art would have recognized that such polymers would have utility. Thus, we agree with appellants, relying on *In re Stemniski*, 444 F.2d 581, 585-86, 170 USPQ 343, 347 (CCPA 1971) (brief, pages 4-5), that there is no factual basis on which to predicate a teaching, suggestion or motivation to modify the teachings of Kricheldorf in order to arrive at the claimed branched polymers, and, therefore, no *prima facie* case of obviousness.

The examiner's decision is reversed.

*Reversed*

EDWARD C. KIMLIN	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
CHARLES F. WARREN	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
TERRY J. OWENS	)	
Administrative Patent Judge	)	

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Bruce F. Jacobs  
124 Mt. Auburn Street  
Suite 200  
Cambridge, MA 02138-5700