

The opinion in support of the decision being entered today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID W. KNOEPPEL, TIM J. COFFY,
HENRY ENRIQUEZ, and STEVEN D. GRAY

Appeal 2007-2656
Application 11/133,685
Technology Center 1700

Decided: July 27, 2007

Before CHUNG K. PAK, CHARLES F. WARREN, and
PETER F. KRATZ, *Administrative Patent Judges*.

KRATZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the Examiner's final rejection of claims 2-7, the only claims that remain pending in this application. We have jurisdiction pursuant to 35 U.S.C. §§ 6 and 134.

Appellants' claimed invention is directed to a catalyst. The described and averred inventive catalyst of the present application is said to be a Ziegler-Natta type polyolefin catalyst (Specification ¶ 002). Claim 5 is illustrative and reproduced below:

5. A catalyst produced by a process comprising:

- a) contacting a catalyst component with an organometallic preactivating agent, wherein the catalyst component is produced by a process comprising,
 - i) contacting a magnesium dialkoxide compound with a halogenating agent to form a reaction product A;
 - ii) contacting reaction product A with a first halogenating/titanating agent to form reaction product B;
 - iii) contacting reaction product B with a second halogenating/titanating agent to form reaction product C; and
 - iv) contacting reaction product C with a third halogenating/titanating agent to form a catalyst component.

The Examiner relies on the following prior art reference as evidence in rejecting the appealed claims:

Shamshoum US 5,817,591 Oct. 6, 1998

Claims 2-7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Shamshoum.

Appellants argue the rejected claims as a group. Thus, we select claim 5 as the representative claim on which we shall decide this appeal.

Because we are in agreement with the Examiner's position as set forth in the Answer, we adopt the Examiner's findings as our own and affirm the stated rejection for substantially the reasons as presented in the Answer. We add the following for emphasis.

At the outset, we note that the catalyst of representative appealed claim 5 is described, at least in part, by a process of preparing the same. In assessing the patentability of such a product-by-process claim, the product made is the focus of our inquiry. In this regard, the patentability of a product is a separate consideration from that of the process by which it is made. *See In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985); *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). “To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently.” *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997); *accord Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1047, 34 USPQ2d 1565, 1567 (Fed. Cir. 1995). However, anticipation by a prior art reference does not require that the reference recognize either the inventive concept of the claimed subject matter or the inherent properties that may be possessed by the prior art reference. *See Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 633, 2 USPQ2d 1051, 1054 (Fed. Cir.), *cert. denied*, 484 U.S. 827 (1987).

Anticipation under this section is a factual determination. *See In re Baxter Travenol Labs.*, 952 F.2d 388, 390, 21 USPQ2d 1281, 1283 (Fed. Cir. 1991) (citing *In re Bond*, 910 F.2d 831, 833, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990)).

The Examiner has found that Shamshoum describes a catalyst corresponding to the catalyst of representative claim 5 by describing the process by which the catalyst is prepared (Answer 3-4). As correctly determined by the Examiner (*id.*), Shamshoum describes a Ziegler-Natta type catalyst that is made via a method that corresponds to the method that the claimed catalyst is made by, including the preparation of a catalyst component using a magnesium dialkoxide that was contacted with a halogenation agent followed with three successive titanating contacting steps (Shamshoum: abstract; col. 2, ll. 11-25 and 39-42; col. 3, ll. 7-24; col. 4, l. 43 – col. 5, l. 51; and col. 5, ll. 28-40). Shamshoum discloses that the co-catalyst component made by the above described method is combined (contacted) with an organoaluminum co-catalyst component (Shamshoum; col. 5, ll. 28-30). In light of the catalyst described by Shamshoum and the Examiner’s findings respecting same, we determine that the Examiner has made out a *prima facie* case of anticipation of representative claim 5.

Appellants contend that the co-catalyst of Shamshoum does not meet the claimed organometallic preactivating agent (Br. 3; Reply Br. 1-2). Moreover, Appellants contend that the catalyst component of Shamshoum is not prepared with a step of contacting reaction product A (product of magnesium dialkoxide compound halogenation contacting step) with a first titanating agent (Br. 3; Reply Br. 2).

Hence, the issue before us in this appeal is: Have Appellants identified reversible error in the Examiner’s anticipation rejection by the above-noted contentions and the arguments with respect thereto as more

fully set forth in the Briefs? We answer this question in the negative, and we affirm the Examiner’s rejection on this record.

With regard to Appellants’ argument that the method of preparation of the claimed catalyst differs because Shamshoum discloses solubilizing reaction product A before the first titanating agent treatment step, we observe that representative claim 5 describes the catalyst made in a product-by-process format without limiting the method of preparation to the exclusion of other steps during the catalyst preparation. In this regard, Appellants employ the open transitional word “comprising” in setting forth the method by which the claim 5 product is produced. *See Exxon Chemical Patents Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1555, 35 USPQ2d 1801, 1802 (Fed. Cir. 1995); *In re Baxter*, 656 F.2d 679, 686-87, 210 USPQ 795, 802-03 (CCPA 1981). Additionally, we note that Appellants disclose that a solvent is used for combination with the halogenation product “A” prior to the first halogenation/titanation treatment step in the disclosed process of making the catalyst (Specification ¶¶ 0038 and 0039).

Moreover, even if claim 5 were considered to exclude such a solubilizing step (which it does not), Appellants have not persuasively argued, much less substantiated with evidence, how the claimed catalyst product differs from the catalyst of Shamshoum, which latter catalyst is made with a solubilizing step.

Appellants’ assertion that the organometallic preactivating agent contacting step of the catalyst preparation method differentiates the claimed catalyst from the catalyst described in Shamshoum is not persuasive. In particular, Shamshoum describes the use of an organoaluminum co-catalyst,

such as trialkylaluminum, for combination with the catalyst component prepared from a magnesium dialkoxide that was contacted with a halogenation agent followed with three successive titanating contacting steps (Shamshoum col. 5, ll. 28-39). Here, representative claim 5 is not so limited as to exclude the described organometallic co-catalyst of Shamshoum by use of the claim phrase “preactivating agent.” *See In re Self*, 671 F.2d 1344, 1350-1351, 213 USPQ 1, 7 (CCPA 1982). Indeed, Appellants disclose that the claimed preactivation agent is inclusive of an organometallic compound (Specification ¶¶ 0044 and 0045) and the same trialkyl aluminum as the organometallic preactivating agent is specified in claim 3. It follows that this argument is not persuasive of any reversible error in the stated rejection.

Having reconsidered the Examiner’s anticipation rejection in light of Appellants’ arguments as presented in the Briefs, we remain persuaded that the representative claim 5 catalyst is anticipated by the catalyst described in Shamshoum.

ORDER

The decision of the Examiner to reject claims 2-7 under 35 U.S.C. § 102(b) as being anticipated by Shamshoum is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED

sld

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