

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

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* STEVEN D. GRAY, TIM J. COFFY,  
EDWAR S. SHAMSHOUM and HONG CHEN

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Appeal 2007-3668  
Application 11/031,587  
Technology Center 1700

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Decided: September 6, 2007

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Before BRADLEY R. GARRIS, CATHERINE Q. TIMM, and  
JEFFREY T. SMITH, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from a final rejection of claims 2, 3, and 5-10. We have jurisdiction under 35 U.S.C. § 6.

Claim 6 and 10 are illustrative:

6. A process for modifying a Ziegler-Natta type catalyst comprising:
  - providing a Ziegler-Natta type catalyst; and

contacting the catalyst with olefin monomer to form a prepolymerized catalyst, wherein the Ziegler-Natta type catalyst is made using a level of magnesium precursor, the magnesium precursor chosen from the group consisting of dibutylmagnesium and butylethylmagnesium and wherein the level of magnesium precursor is adapted to produce a polymer having a percentage of polymer fines of less than 0.5%.

10. A process for modifying a Ziegler-Natta type catalyst comprising:

providing a Ziegler-Natta type catalyst; and

contacting the catalyst with olefin monomer to form a prepolymerized catalyst, wherein the Ziegler-Natta type catalyst is formed using an organoaluminum compound, wherein the organoaluminum compound comprises triisobutylaluminum and wherein the prepolymerized catalyst is capable of producing a polymer having a percentage of polymer fines that is reduced when compared to prepolymerized catalysts prepared with organoaluminum compounds other than triisobutylaluminum.

Appellants' claimed invention is directed to a process for modifying a Ziegler-Natta type catalyst. The polymer resulting from polymerization with the claimed catalyst is described as having a percentage of polymer fines of less than 0.5% (claim 6); and having a percentage of polymer fines that is reduced when compared to prepolymerized catalysts prepared with organoaluminum compounds other than triisobutylaluminum (claim 10).

Appealed claims 2, 3, and 5-10 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the original Specification in such a way as to reasonably convey that Appellants were in possession of the invention now claimed at the time of filing. This

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is the only rejection on appeal. The rejection questions the support for independent claims 6 and 10. We will limit our discussion to these two claims.

Based on the totality of the record, we *affirm* the rejection of claim 10 under the first paragraph of § 112 for lack of written description essentially for the reasons stated in the Answer as well as those reasons set forth below. We *reverse* the rejection of claims 2, 3, and 6-9 under the first paragraph of § 112 for lack of written description essentially for the reasons stated in the Brief and Reply Brief, as well as those reasons noted below.

#### THE SUBJECT MATTER OF CLAIM 10.

As correctly argued by the Examiner the original specification only provides support for comparing polymers produced from catalyst comprising triisobutylaluminum and polymers produced from catalyst comprising triethyl aluminum not any organoaluminum except triisobutylaluminum (Answer 4 and 6-7). The Examiner asserted that Ziegler catalysts are recognized to generally be unpredictable in nature (Answer 6). As such, the Examiner concluded that “one [of ordinary skill in the art] cannot predict that reduced polymer fines due to replacing triisobutylaluminum with triethyl aluminum in the catalyst composition would extend to the process by replacing triisobutylaluminum with any organoaluminum” (Answer 6).

Appellants have not disagreed with the Examiner's contention that Ziegler catalysts are recognized to generally be unpredictable in nature (See Reply Br. generally). Rather, Appellants contend that those skilled in the art

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would have recognized that the disclosed invention was broader than a comparison only with triethyl aluminum (Br. 4, Reply Br. 2).

We do not agree. It is well recognized that in the “unpredictable” fields of science, it is appropriate to recognize the variability in the science in determining the scope of the coverage to which the inventor is entitled. Such a decision usually focuses on the exemplification in the specification. See, e.g., *Enzo Biochem, Inc. v. Gen-Probe, Inc.*, 323 F.3d 956, 968, 63 USPQ2d 1609, 1616 (Fed. Cir. 2002) (Even if a claim is supported by the Specification, the language of the Specification, to the extent possible, must describe the claimed invention so that one skilled in the art can recognize what is claimed.); *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) (two chemical compounds were insufficient description of subgenus); *In re Smith*, 458 F.2d 1389, 1394-95 173 USPQ 679, 683 (CCPA 1972) (disclosure of genus and one species was not sufficient description of intermediate subgenus).

#### THE SUBJECT MATTER OF CLAIM 6.

The issue presented is: Has the Examiner established that the subject matter of claim 6 does not meet the written description requirement of 35 U.S.C. § 112, first paragraph? We answer this question in the negative.

The Examiner contends that the Specification does not have written description support for the subject matter of claim 6. Specifically, the Examiner contends that there is no support in the Specification for the claim limitation wherein the level of magnesium precursor is adapted to produce a

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polymer having a percentage of polymer fines of less than 0.5%. (Answer 4-5).

Appellant contends that support for the presently claimed invention can be found throughout the specification including original claims 20 and 22 (Br. 2 and Reply Br. 1-2). The Specification discloses:

[A]nother embodiment of the invention is a polymerization process comprising providing a Ziegler-Natta type catalyst and contacting the Ziegler-Natta type catalyst with triisobutylaluminum to form a precontacted catalyst. The precontacted catalyst is then contacted with olefin monomer to form a prepolymerized catalyst. The prepolymerized catalyst is contacted with olefin monomer under polymerization reaction conditions to produce polymer fluff particles. The precontacted catalyst is at least 20% larger in average particle size than the Ziegler-Natta type catalyst and the prepolymerized catalyst has at least 50% fewer particles with a size of 40 microns or less than the precontacted catalyst less than 5% of the polymer fluff particles are 700 microns or less in size and the number of polymer fines produced is less than 0.5%.

(Specification 0009).

An *ipsis verbis* disclosure is not necessary to satisfy the written description requirement of Section 112. Instead, the disclosure need only reasonably convey to persons skilled in the art that the inventor had possession of the subject matter in question. *See In re Edwards*, 568 F.2d 1349, 1351-52, 196 USPQ 465, 467 (CCPA 1978). We agree with the Appellant, the Specification as originally filed clearly discloses the prepolymerized catalyst is contacted with olefin monomer under polymerization reaction conditions to produce a polymer having a

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percentage of polymer fines of less than 0.5%. Moreover, we note the Examiner in the Interview Summary, dated October 24, 2006, acknowledges that paragraph “[009] only provide support for the Ziegler catalyst treated with triisobutylaluminum providing polymer with less than 0.5% polymer fines.”

The Examiner has failed to adequately explain why the Specification would not have reasonably conveyed to a person of ordinary skill in the art the scope of the presently invention claimed.

Accordingly, we are constrained to reverse the Examiner’s 35 U.S.C. § 112, first paragraph, rejection of claims 2, 3, and 5-9 as lacking an adequate written description for the subject matter presently claimed.

#### ORDER

The rejection of claims 2, 3, and 5-9 under 35 U.S.C. § 112, first paragraph is reversed. The rejection of claim 10 under 35 U.S.C. § 112, first paragraph 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).

**AFFIRMED-IN-PART**

tc/ls

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