

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROQUETTE FRERES, S.A.,
Petitioner,

v.

TATE & LYLE INGREDIENTS AMERICAS LLC,
Patent Owner.

Case IPR2017-01506
Patent 7,608,436 B2

Before LORA M. GREEN, GRACE KARAFFA OBERMANN,
and JACQUELINE T. HARLOW, *Administrative Patent Judges*.

OBERMANN, *Administrative Patent Judge*.

DECISION

Institution of *Inter Partes* Review
35 U.S.C. § 314; 37 C.F.R. § 42.108

I. INTRODUCTION

Petitioner filed a Petition for *inter partes* review of claims 1–36 of U.S. Patent No. 7,608,436 B2 (Ex. 1001, “the ’436 patent”). Paper 1 (“Pet.”). Patent Owner filed a Preliminary Response. Paper 7 (“Prelim. Resp.”). Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail at trial with respect to at least one challenged patent claim, we institute review of claims 1–4, 15–29, 31, and 32 of the ’436 patent.

The following findings of fact and conclusions of law are not final, but are made for the sole purpose of determining whether Petitioner meets the threshold for initiating review. Any final decision shall be based on the full trial record, including any response timely filed by Patent Owner. Any arguments not raised by Patent Owner in a timely-filed response shall be deemed waived, even if they were presented in the Preliminary Response.

Taking account of the information provided at this stage of the proceeding, we determine that Petitioner shows sufficiently the following facts for the purposes of trial institution.

A. *Related Proceedings*

Petitioner submits that there are no related proceedings. Pet. 1. Petitioner states that it filed, concurrently with the instant Petition, a petition for *inter partes* review of a related patent, U.S. Patent No. 8,057,840 B2. *Id.*; see Case IPR2017-01507 (“IPR1507”). Concurrently herewith, we issue a decision in IPR1507.

B. *The ’436 Patent (Ex. 1001)*

The ’436 patent is entitled “Process for Producing Saccharide Oligomers.” Ex. 1001, Title. The specification discloses “a need for edible

materials which have a reduced content of easily digestible carbohydrates, and which can be used in place of, or in addition to, conventional carbohydrate products in foods,” such as candy and yogurt. Ex. 1001, 1:17–20, 18:60–19:38 (Examples 11, 12, and 13).

The specification further discloses a process for making a slowly digestible saccharide oligomer composition that is suitable for use in foods. *Id.* at 2:33–35. The process may be performed on a feed composition that includes monosaccharides and oligosaccharides in a dry solids concentration of up to at least about 70% by weight. *Id.* at 2:62–64. Suitable starting materials for the feed composition include dextrose syrups, corn syrup, and maltodextrose solutions. *Id.* at 3: 11–15. The feed composition may be subjected to a heating step and a contacting step. *Id.* at 3:42–60, 4:20–38, 19:41–58 (claim 1). During the contacting step, the feed composition may be contacted with a catalyst, such as an enzyme or acid, for a period of time sufficient to accelerate the rate of cleavage or formation of glucosyl bonds to cause formation of non-linear oligosaccharides. *Id.* at 15:23–60 (Example 6), 16:29–66 (Example 8), 19:48–51 (claim 1).

According to the specification, “[t]he product composition produced by the treatment with acid, enzyme, or both, has an increased concentration on a dry solids basis of non-linear saccharide oligomers.” *Id.* at 5:28–30. The “product composition” has “a higher concentration of non-linear oligosaccharides than linear oligosaccharides” and is characterized by “non-linear saccharide oligomers having a degree of polymerization of at least three in a concentration of at least about 20% by weight on a dry solids basis.” *Id.* at 19:51–58 (claim 1).

C. Illustrative Claim

Claim 1, the only independent claim, is reproduced below:

1. A process for preparing saccharide oligomers, comprising:

heating an aqueous feed composition that comprises at least one monosaccharide or linear saccharide oligomer, and that has a solids concentration of at least about 70% by weight, to a temperature of at least about 40° C; and

contacting the feed composition with at least one catalyst that accelerates the rate of cleavage or formation of glucosyl bonds for a time sufficient to cause formation of non-linear saccharide oligomers, wherein a product composition is produced that contains a higher concentration of non-linear saccharide oligomers than linear saccharide oligomers; wherein the product composition comprises non-linear saccharide oligomers having a degree of polymerization of at least three in a concentration of at least about 20% by weight on a dry solids basis.

D. Evidence Relied Upon

The Petition asserts the following prior art references in the grounds of unpatentability:

(1) US Pat. No. 4,518,581, issued to Toshio Miyake et al. on May 21, 1985 (Ex. 1005, “Miyake”);

(2) US Pat. No. 5,424,418, issued to Pierrick Dufлот on June 13, 1995 (Ex. 1006, “Dufлот”);

(3) WO 98/41545 patent application to Pankaj Shah et al., published September 24, 1998 (Ex. 1008, “Shah”);

(4) S.A.S. Craig et al., *Polydextrose as Soluble Fiber and Complex Carbohydrate*, in *Complex Carbohydrates in Foods* 229–247 (Susan Sungsoo Cho et al. eds. 1999) (Ex. 1009, “Craig”);

(5) US Pat. No. 2,610,930, issued to James E. Cleland on September 16, 1952 (Ex. 1007, “Cleland”);

(6) US Pat. No. 7,638,151 B2, issued to Gang Duan et al. on December 29, 2009 (Ex. 1010, “Duan”).

The Petition is supported by the Declaration of Dr. Alexei Demchenko, which the Petition identifies as Exhibit 1002 (Pet. v), but which appears in the record as Paper 4. For the purposes of this decision, we determine that Dr. Demchenko is qualified to opine from the perspective of a person of ordinary skill in the art at the time of the invention. Ex. 1003 (Dr. Demchenko’s curriculum vitae).

E. The Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1–36 of the ’436 patent on the following grounds (Pet. 5):

Claims	Basis	References
1, 3, 4, 7–9, 11, 15, 25–30, 32	§ 102(b)	Mikaye
1–13, 15, 16, 23–30, 32	§ 103	Miyake ¹
1, 3–9, 11, 13–17, 23–29, 31–33	§ 102(b)	Duflot
1–9, 11, 13–29, 31–33	§ 103	Duflot and Cleland
1–4, 15–18, 23–29, 31, 32	§ 102(b)	Shah
1–4, 15–18, 23–29, 31, 32	§ 103	Shah and Craig
1–4, 15–29, 31, 32	§ 102(b)	Shah, Craig, and Cleland
1–8, 11–16, 23–31, 34–36	§ 102(b)	Duan

¹ The Petition identifies “a POSA’s knowledge” as prior art evidence in the grounds based on obviousness. Pet. 5. We consider evidence, reflecting the

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.