

No.

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**In the Supreme Court of the United States**

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PACTIV, LLC,

*Petitioner,*

v.

MICHELLE K. LEE, UNDER SECRETARY OF  
COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR, PATENT AND TRADEMARK OFFICE,

*Respondent.*

—————  
**On Petition for a Writ of Certiorari to  
the United States Court of Appeals  
for the Federal Circuit**

—————  
**PETITION FOR A WRIT OF CERTIORARI**

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## QUESTION PRESENTED

Congress has established an *ex parte* reexamination mechanism at the U.S. Patent & Trademark Office (“PTO”), which permits any individual to submit prior art references and request reexamination of a granted patent claim. Before initiating an *ex parte* reexamination, the PTO Director must first find that the prior art reference raises a “substantial *new* question of patentability.” If the Director determines that such a question is raised, “the determination will include an order for reexamination of the patent *for resolution of the question.*” 35 U.S.C. § 304 (emphasis added). The question presented is:

Whether, because Section 304 requires the Director to issue an order for a reexamination “for resolution of the question,” the “substantial new question of patentability” included in the Director’s order delineates the scope of the *ex parte* reexamination.

**CORPORATE DISCLOSURE STATEMENT**

Pactiv, LLC is privately held by Reynolds Group Holdings Limited, which is wholly owned by Rank Group Limited.

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## PETITION FOR A WRIT OF CERTIORARI

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Petitioner Pactiv, LLC respectfully petitions for a writ of certiorari to review the judgment of the U.S. Court of Appeals for the Federal Circuit in this case.

### OPINIONS BELOW

The opinion of the court of appeals (App., *infra*, 1a) is not reported. The decisions of the Patent Trial and Appeal Board (*id.* at 12a-56a, 57a-94a) are not reported.

### JURISDICTION

The judgment of the court of appeals was entered on March 16, 2016 (App., *infra*, 1a). On May 11, the Chief Justice extended the time for the filing of a petition for certiorari until August 12, 2016. See No. 15a1164. This Court's jurisdiction rests on 28 U.S.C. § 1254(1).

### STATUTORY PROVISIONS INVOLVED

Title 35, U.S. Code § 303(a) provides in pertinent part:

- (a) Within three months following the filing of a request for reexamination under the provisions of section 302, the Director will determine whether a substantial new question of patentability affecting any claim of the patent concerned is raised by the request, with or without consideration of other patents or printed publications. On his own initiative, and any time, the Director may determine whether a substantial new question of patentability is raised by patents and publications discovered by him or cited under the provisions of section 301 or 302.

Title 35, U.S. Code § 304 provides in pertinent part:

If, in a determination made under the provisions of subsection 303(a), the Director finds that a substantial new question of patentability affecting any claim of a patent is raised, the determination will include an order for reexamination of the patent for resolution of the question. The patent owner will be given a reasonable period, not less than two months from the date a copy of the determination is given or mailed to him, within which he may file a statement on such question, including any amendment to his patent and new claim or claims he may wish to propose, for consideration in the reexamination.

Title 35, U.S. Code. § 305 provides in full:

After the times for filing the statement and reply provided for by section 304 have expired, reexamination will be conducted according to the procedures established for initial examination under the provisions of sections 132 and 133. In any reexamination proceeding under this chapter, the patent owner will be permitted to propose any amendment to his patent and a new claim or claims thereto, in order to distinguish the invention as claimed from the prior art cited under the provisions of section 301, or in response to a decision adverse to the patentability of a claim of a patent. No proposed amended or new claim enlarging the scope of a claim of the patent will be permitted in a reexamination proceeding under this chapter. All reexamination proceedings under this section, including any appeal to the Patent Trial and

Appeal Board, will be conducted with special dispatch within the Office.

### STATEMENT

An inventor obtains a patent by applying to the U.S. Patent & Trademark Office (PTO). During patent prosecution, a patent examiner considers whether, among other things, the inventor's claims are patentable in light of the relevant prior art.

On some occasions, the patent examiner may not be aware of relevant prior art, or the patent examiner may not understand how certain prior art relates to the claimed invention. As a result, Congress has created mechanisms by which the PTO may later review issued patent claims. Relevant here, any party (including the PTO Director) may submit prior art references and request the PTO to institute an *ex parte* reexamination of issued patent claims.

Cognizant that an unbridled review system could impose enormous burden and undue harassment on patentees, Congress crafted a threshold safeguard to protect patentees against complete review of patents against their will. The PTO may initiate an *ex parte* reexamination only if it first determines that the request raises a "substantial new question of patentability." That is a demanding standard: it requires a showing of a *new* question not previously considered by the Patent Office. *Ex parte* reexaminations are not complete patentability reviews (unlike reissue proceedings, which differ materially, see, *infra*, 15-16).

This case presents a question fundamental to all *ex parte* reexaminations: whether, after the PTO initiates an *ex parte* reexamination, that proceeding is limited in scope to the question determined to qualify as the "substantial new question of patentability."

Here, the PTO initiated *ex parte* reexaminations of two patents owned by petitioner on the basis of certain prior art references. But the examiner subsequently rejected several claims due to wholly different prior art references. There was never any determination under 35 U.S.C. § 303 that these other references raised a “substantial new question of patentability,” nor did the Director issue the order required under Section 304 identifying a “substantial new question of patentability” based on these wholly different prior art references. The patent examiner, Patent Trial and Appeal Board, and the Federal Circuit all rejected petitioner’s argument that the examiner’s final office action exceeded the proper scope of *ex parte* reexamination. That issue warrants review.

**First**, this question is quite significant, as its answer will determine the framework for the several hundred *ex parte* reexaminations conducted annually. The approach taken by the PTO—and affirmed below—guts the safeguards Congress has imposed to protect patentees from undue burden.

**Second**, the Federal Circuit has deviated from the plain language of the Patent Act. When the PTO Director “finds that a substantial new question of patentability affecting any claim of a patent is raised,” the Director shall then issue an order “for reexamination of the patent for *resolution of the question*.” 35 U.S.C. § 304 (emphasis added). The statute is unambiguous: the scope of an *ex parte* reexamination is limited to those issues identified in the Director’s order as raising a “substantial new question of patentability.”

**Third**, the Federal Circuit’s summary affirmation in this case heightens the need for review. The Federal Circuit may not avoid scrutiny of thorny

questions of statutory interpretation through persistent use of its Circuit Rule 36. At the very least, the Court should grant the petition, vacate the judgment below, and remand for further proceedings.

### A. Statutory background.

An inventor obtains patent protection by applying to the Patent Office. 35 U.S.C. §§ 101 *et seq.* A patent examiner “reviews an applicant’s patent claims, considers the prior art, and determines whether each claim meets the applicable patent law requirements.” See *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2137 (2016). During this process, if the examiner rejects a claim, the applicant can submit an amended, often narrowed, claim. *Ibid.* Ultimately, the Patent Office determines whether the proposed claim is allowable. *Ibid.*

Congress has established certain mechanisms by which the Patent Office may reevaluate granted patent claims post-issuance. *Cuozzo*, 136 S. Ct. at 2137. At issue here is *ex parte* reexamination. See 35 U.S.C. §§ 301-307.<sup>1</sup>

Any person—including any third party, the patent owner, or the Director of the Patent Office—may request an *ex parte* reexamination. 35 U.S.C. §§ 301-303; *Cuozzo*, 136 S. Ct. at 2137. The requester provides the PTO prior art that allegedly renders a patent claim invalid—and it must pay the relevant fil-

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<sup>1</sup> Congress has created other modes of post-grant review—*inter partes* review (35 U.S.C. §§ 311-319), post-grant review (*id.* §§ 321-329), covered business method review (*id.* § 321 note), and—of particular relevance here—voluntary reissue proceedings (*id.* §§ 251-257). One feature of the “*ex parte*” reexamination is that, once instituted, third parties are not entitled to participate in subsequent proceedings. *Id.* § 305.

ing fee. 35 U.S.C. § 302. The PTO transmits the request for reexamination to the patent owner. *Ibid.*

The Director of the PTO must then determine “whether a substantial new question of patentability affecting any claim of the patent concerned is raised by the request, with or without consideration of other patents or printed publications.” *Id.* § 303(a).<sup>2</sup> Further, “the Director may determine whether a substantial new question of patentability is raised by patents and publications discovered by him or cited under the provisions of section 301 or 302.” *Ibid.* When considering whether a request for *ex parte* reexamination raises a “substantial new question of patentability,” patent examiners may therefore identify and consider a broad range of prior art, and are expressly permitted (at that stage) to search beyond the art submitted by the third-party requester.

The Patent Office has carefully defined the meaning of the statutory term “a substantial new question of patentability.” See Dep’t of Commerce, Manual of Patent Examining Procedure § 2216 (“MPEP”). It is not enough that the requester has supplied *some* ground for rejecting a patent claim—the ground must be *new*. That is, “it is not sufficient that a request for reexamination merely proposes one or more rejections of a patent claim or claims as a basis for reexamination.” *Ibid.* Rather:

It must first be demonstrated that a patent or printed publication that is relied upon in a proposed rejection presents *a new, non-*

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<sup>2</sup> The Director has delegated the authority to determine whether a third party’s request poses a “substantial new question of patentability” to patent examiners. 37 C.F.R. § 1.515(a).

*cumulative* technological teaching that was *not previously considered and discussed* on the record during the prosecution of the application that resulted in the patent for which reexamination is requested, and during the prosecution of any other prior proceeding involving the patent for which reexamination is requested.

*Ibid.* (emphasis added).

If the Director finds that there is no “substantial new question of patentability,” the Director will terminate the reexamination. 35 U.S.C. § 303(c). If, however, “the Director finds that a substantial new question of patentability affecting any claim of a patent is raised,” then the Director’s “determination *will include an order* for reexamination of the patent for resolution of the question.” *Id.* § 304 (emphasis added).

After the Director initiates an *ex parte* reexamination upon the finding of a “substantial new question of patentability” by issuing such an order, the patent owner is afforded a minimum of two months to provide a responsive statement, as well as to propose any new claims or claim amendments. *Ibid.* Subsequently, the “reexamination will be conducted according to the procedures established for initial examination under the provisions of sections 132 and 133.” *Id.* § 305. That provides the patent owner multiple opportunities to respond to any proposed rejections by the examiner.

## **B. Proceedings below.**

In March 2011, lawyers (who represent a party adverse to Pactiv in litigation) filed two *ex parte* reexamination requests, seeking review of every

claim in two patents owned by petitioner—U.S. Patent Nos. 6,315,921 (the '921 patent) and 6,395,195 (the '195 patent). App., *infra*, 168a, 175a. Both patents describe inventions that prevent packaged meat from turning brown. *Id.* at 14a, 59a.

1. A patent examiner found a substantial new question of patentability with respect to all claims of the '921 and '195 patents based on the same three prior art references: Komatsu as evidenced by the McKedy declaration (Pet. App. 170a, 177a), Yoshikawa '503 (*id.* at 171a, 178a), and Yoshikawa '652 in view of McKedy (*id.* at 172a, 179a).

Ultimately, the patent examiner sustained rejections of most claims of the '921 and '195 patents. App., *infra*, 104a-167a. Certain of these claims were rejected solely on the basis of prior art *not* addressed by the determination of a “substantial new question of patentability.” For example, with respect to the '921 patent, claims 3-5, 11-12, and 20-28 were rejected solely in view of different prior art, including Sakai, GB '853, Hamon, and Weinke. App., *infra*, 111a-122a. Likewise, certain claims of the '195 patent were rejected on the basis of prior art references not included in the substantial question of patentability determination, including Hamon, Graf, McKedy '375, Sakai, and Weinke. *Id.* at 143a-155a.

At no point did the Director issue “an order for reexamination of the patent for resolution of the question” (see 35 U.S.C. § 304) of patentability based on those references. There was, accordingly, no finding of a “substantial new question of patentability” as to any one of these references. The Director never concluded that these references were “a new, non-cumulative technological teaching that was not pre-

viously considered and discussed on the record.” MPEP § 2216.

Petitioner objected to the examiner’s resting on prior art references outside the “substantial new question” determination. Petitioner contended that “the pending rejections of claims 3-5, 11-12, and 20-28 are improper because they are based on prior art that was not cited in the original Request for Reexamination for the determination of the [substantial new question].” App., *infra*, 96a. See also *id.* at 100a. The examiner disagreed and concluded that during the reexamination, she was required to examine all art, regardless of whether they were included within the “substantial new question of patentability” determination. *Id.* at 96a, 100a-101a.

2. The Patent Trial and Appeal Board (“PTAB”) subsequently affirmed. See App., *infra*, 12a-94a.

Petitioner again argued that the examiner exceeded the proper scope of the *ex parte* reexamination by reaching beyond the “substantial new question of patentability” determination. App., *infra*, 16a-19a, 62a-65a. The PTAB rejected the argument. *Ibid.* The PTAB appears to have principally rested on 35 U.S.C. § 303(a), which permits the Director to raise, on his or her own initiative, a substantial new question of patentability. *Ibid.*

Petitioner sought rehearing on this issue, reiterating its argument “that a substantial new question (SNQ) of patentability had been found for a specific combination of publications, but subsequently the Examiner had made additional rejections which were not part of the specific SNQs of patentability.” App., *infra*, 3a. The PTAB denied the requests for rehear-

ing. App., *infra*, 2a-6a, 7a-11a. The PTAB again referenced Section 303(a). *Id.* at 6a, 11a.

3. Petitioner appealed to the Federal Circuit, asserting this same statutory construction argument. The court of appeals summarily affirmed pursuant to its Circuit Rule 36. App., *infra*, 1a.<sup>3</sup>

### REASONS FOR GRANTING THE PETITION

Section 304 of the Patent Act provides that, when the Director determines that there exists “a substantial new question of patentability,” the Director shall order “reexamination of the patent for *resolution of the question*.” 35 U.S.C. § 304 (emphasis added). The “substantial question of patentability” thus defines the proper scope of the *ex parte* reexamination.

The Federal Circuit, however, permits patent examiners to reject claims during *ex parte* reexaminations on grounds that differ from the “substantial new question of patentability.”

This Court’s review is warranted. This question is exceedingly important because it governs the protections accorded to patentees in each of the hundreds of *ex parte* reexaminations instituted every year. The result reached below, moreover, conflicts with the unambiguous text of Section 304. And this

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<sup>3</sup> In separate proceedings, the PTO rejected other claims of related patents owned by petitioner, again on grounds other than those identified in the “substantial new question of patentability” determination. The same issue as to the proper interpretation of Section 304 was raised in that case, and the Federal Circuit also issued a summary affirmance pursuant to its Circuit Rule 36. See *In re Pactiv LLC*, Nos. 14-1066, -1067, -1068, -1069, -1070 (Fed. Cir. 2014).

case is an appropriate vehicle, as the question presented controls the outcome here.

### **I. The Question Presented Is Important And Oft-Recurring.**

Whether the scope of an *ex parte* reexamination is limited to the issues addressed in the determination of a “substantial new question of patentability” is an issue of critical importance.

*First*, this question determines the extent of a patentee’s procedural rights during *ex parte* reexaminations.

Section 304 provides that a patent owner has a right to respond to a determination that there exists a “substantial new question of patentability.” 35 U.S.C. § 304. The PTO must provide the patentee at least two months to prepare and file this response. *Ibid*. Then, if an examiner identifies a basis to reject a claim, the patent owner has an *additional* opportunity to respond. *Id.* §§ 305, 132-133. The owner may submit further argument, analysis, or evidence; alternatively, the patent owner may offer an amendment to overcome the proposed rejection. *Id.* §§ 132-133. These multiple steps all occur *before* the examiner issues a final office action.

The Federal Circuit, however, has deprived the patentee of this full process. Now, an examiner can identify a new basis for rejection *after* the “substantial new question” determination. A patentee loses the right to the two-month initial response period that is created by Section 304.

Worse still, in this case the Examiner made new rejections (*i.e.*, based on art not the subject of the Director’s initial order for reexamination) in her *final*

office action. Once a “final action” issues, the patent holder loses substantial rights to further respond to the rejections. See 37 C.F.R. § 1.116(b)(1)-(3) (identifying the narrow conditions in which a response after final action may be considered by the PTO). The statute as written, however, provides the patent owner at least two opportunities as of right to *fully* respond to the substantial new question of patentability.<sup>4</sup>

**Second**, the question presented is also essential to ensure that *ex parte* reexamination proceedings do not unduly burden patent owners.

The threshold requirement for an institution of an *ex parte* reexamination—the finding of a “substantial new question of patentability” (35 U.S.C. § 304)—is more than an early look at the merits of the claim. The inquiry is whether “a patent or printed publication \* \* \* presents a new, non-cumulative technological teaching that was not previously considered and discussed.” MPEP § 2216. That is, “[t]he scope of reexamination proceedings is limited to ‘sub-

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<sup>4</sup> The approach taken below also negates an additional procedural safeguard that exists for the benefit of the public. If, as we contend, an *ex parte* reexamination is limited to issues identified in the “substantial new question of patentability” determination, then the “amendment of claims during reexamination is limited to amendment in light of prior art raising a substantial new question of patentability.” *In re Freeman*, 30 F.3d at 1468. That properly restricts the range of amendments a patentee can offer during the *ex parte* reexamination process. The contrary interpretation adopted below greatly expands the range of prior art references on which a patent examiner may base a rejection, in turn expanding the range of amendments that may be secured in the course of an *ex parte* reexamination proceeding.

stantial new questions of patentability,’ 35 U.S.C. § 303(a), which are questions that have not previously been considered by the PTO.” *In re NTP, Inc.*, 654 F.3d 1268, 1275 (Fed. Cir. 2011). See also *In re Freeman*, 30 F.3d 1459, 1468 (Fed. Cir. 1994) (“[T]he substantial new question of patentability is the focal point of every reexamination.”).

Congress designed this standard to protect patentees: “The ‘substantial new question of patentability’ requirement prevents potential harassment of patentees by ‘act[ing] to bar reconsideration of any argument already decided by the [PTO], whether during the original examination or an earlier reexamination.” *In re Swanson*, 540 F.3d 1368, 1376 (Fed. Cir. 2008) (quoting H.R. Rep. No. 1307(I), 96th Cong., 2d Sess. 7 (1980)).

As one congressional report put it, the purpose of the “substantial new question of patentability” requirement is to ensure that an *ex parte* reexamination is more than “just questioning the judgment of the examiner.” H.R. Rep. No. 120, 107th Cong., 1st Sess. 3 (2001), 2001 WL 729310, at \*3. Indeed, the “statute guard[s] against simply repeating the prior examination on the same issues and arguments.” *In re Recreative Techs. Corp.*, 83 F.3d 1394, 1397 (Fed. Cir. 1996). Diminishing that requirement would, in Congress’s view, constitute “a license to abuse patentees and waste the life of a patent.” H.R. Rep. No. 120, 107th Cong., 1st Sess. 3 (2001).

Congress thus designed *ex parte* reexaminations to serve as a scalpel: if the PTO identifies a “substantial new question of patentability,” it conducts a reexamination proceeding to resolve that question. A more expansive procedure would, in Congress’s view, unduly burden patentees.

But the Federal Circuit has approved an enormous backdoor that significantly guts this protection. Now, after finding a “substantial new question,” an examiner has license to conduct a *complete* invalidity review of the patent. Under this approach, nothing precludes an examiner from basing a rejection on prior art arguments previously considered by the PTO. This enables the very form of “harassment” that Congress sought to foreclose. *In re Swanson*, 540 F.3d at 1376.

This case is illustrative. After finding that prior art by a third-party requester identified a “substantial new question,” the examiner proceeded to conduct a complete invalidity review. The examiner never paused to consider whether the new art in fact constituted a “significant new question,” as carefully defined by Congress.

It is no answer that, pursuant to Section 303, the *PTO Director* may decide that a prior art reference forms a “substantial new question of patentability” “[o]n his own initiative.” 35 U.S.C. § 303(a). Pursuant to Section 304, this must occur *before* the reexamination process begins and thus be incorporated into the order from the Director identifying the “substantial new question of patentability.” This order *from the Director* triggers two full opportunities for the patent owner to respond. See, *supra*, 7, 11.

In addition, the Director has not delegated this authority to find a “substantial new question of patentability” “[o]n his own initiative” to patent examiners. Instead, only in “rare” and “compelling circumstances” may the Director, the Deputy Director, the Commissioner for Patents, or the Deputy Commissioner for Patent Examination Policy make such a

*sua sponte* decision. See MPEP § 2239; 37 C.F.R. § 1.520.

That the Director has not delegated this power is revealing. Such a *sua sponte* order may greatly expand the scope of an *ex parte* reexamination, thus creating additional expense and burden for the patent owner. The Director has granted the authority to expand these proceedings to only select senior officials.

**Third**, the Federal Circuit’s expansion of the scope of an *ex parte* reexamination intrudes into a separate form of administrative review—the patent reissue proceeding.

If a patentee is willing to concede that a patent is “wholly or partly inoperative or invalid,” a patentee may choose to “surrender” the patent and then apply for its “reissue.” 35 U.S.C. § 251. The “reissue application will be examined” like an original application; the examiner may consider any prior art in determining whether to allow reissue claims. 37 C.F.R. § 1.176.

A reissue proceeding may be quite valuable for a patentee, as it may permit the patentee to salvage claims that are invalid as drafted. But this benefit comes at a very steep cost—the patentee must admit that some claims are invalid, and the patent is subject to a complete invalidity review.

The approach taken below effectively renders an *ex parte* reexamination coextensive with reissue proceedings. But, because *ex parte* reexaminations (unlike reissue proceedings) are involuntary, this fundamentally upsets the careful balance Congress struck among the administrative review mechanisms.

\* \* \*

For these reasons, the question presented establishes the critical legal framework governing the scope of every *ex parte* reexamination.

Because hundreds of such proceedings occur each year, this question should be resolved. In fiscal year 2014, for example, parties filed a total of 343 requests for *ex parte* reexamination. See U.S. Patent and Trademark Office, *Ex Parte* Reexamination Filing Data—September 30, 2014, <http://goo.gl/6JEVmU>. In 2012, there were 787 reexamination filings. Historically, the PTO has instituted reexamination, having found a substantial new question of patentability, in response to approximately 92% of requests. *Ibid.*

In every one of these reexaminations, examiners may now reach far beyond the scope of the “substantial new question” determination. Examiners may base rejections on any prior art, regardless of whether it meets the “substantial new question” standard, at any time once the reexamination is initiated, and without any authority from the Director to do so. This undermines Section 304’s procedural protections, it imposes unduly burdensome reexaminations on patentees, and it blurs the careful distinction Congress drew between reexaminations and patent reissue proceedings. Review is warranted.

## **II. Section 304 Limits The Scope Of *Ex Parte* Reexaminations To The Substantial New Question Of Patentability.**

The plain text of the Patent Act establishes that the scope of an *ex parte* reexamination is limited to only those prior art references that raise “a substan-

tial new question of patentability.” Clear congressional purpose confirms this interpretation.

1. The Court “begin[s] ‘with the language of the statute.’” *Kingdomware Techs., Inc. v. United States*, 136 S. Ct. 1969, 1976 (2016). If “the statutory language is unambiguous and ‘the statutory scheme is coherent and consistent,’” then the “‘inquiry ceases.’” *Ibid.* That is the case here: the language of the statute is clear on its face, and it provides a coherent understanding of the statute.

Pursuant to Section 303, the PTO may initiate an *ex parte* reexamination only if it first determines that “a substantial new question of patentability affecting any claim of the patent concerned is raised by the request.” 35 U.S.C. § 303. And, as we explained, the PTO has developed a standard for this term—such a question exists only where “a patent or printed publication \* \* \* presents a new, non-cumulative technological teaching that was not previously considered and discussed.” MPEP § 2216.

Section 304 then provides the limitation on the scope of *ex parte* reexaminations:

If, in a determination made under the provisions of subsection 303(a), the Director finds that a substantial new question of patentability affecting any claim of a patent is raised, the determination will include an order for reexamination of the patent *for resolution of the question*.

35 U.S.C. § 304 (emphasis added).

There is no doubt that the phrase “for resolution of the question” refers to the antecedent term “substantial new question of patentability.” The sentence

would make no sense otherwise. Indeed, “there is a natural presumption that identical words used in different parts of the same act are intended to have the same meaning.” *Atl. Cleaners & Dyers, Inc. v. United States*, 286 U.S. 427, 433 (1932). What the reexamination must resolve is the “substantial new question of patentability.”

This conclusion is further supported by the second sentence of Section 304, which permits the patent owner “to file a statement on *such question*.” “Such question” again must refer back to the “substantial new question”—that is the point of the patent owner’s response. Section 304 uses the term “question” consistently throughout.

Any contrary reading would render the language “for resolution of the question” surplusage. If the initiation of the *ex parte* reexamination opened the door to rejection of claims on *any* basis, then Congress would have required the Director to issue an “order for reexamination of the patent.” That would have been it. But that is not the statute Congress wrote. Instead, Congress purposefully added five words to clarify its intent: reexamination is “for resolution of the question.”

The Court should therefore reject an interpretation of the statute that “run[s] headlong into the rule against superfluity.” *Lockhart v. United States*, 136 S. Ct. 958, 966 (2016).

2. In a closely related context, the Federal Circuit itself confirmed this statutory construction. The now-repealed *inter partes* reexamination statute used nearly identical operative language.

Prior to recent amendments, Section 312(a) conditioned initiation of an *inter partes* reexamination

upon the determination of “a substantial new question of patentability.” 35 U.S.C. § 312(a) (2002). See also *Belkin Int’l, Inc. v. Kappos*, 696 F.3d 1379, 1382 (Fed. Cir. 2012). And Section 313 used to contain language identical to Section 304:

If, in a determination made under section 312(a), the Director finds that a substantial new question of patentability affecting a claim of a patent is raised, the determination shall include an order for inter partes reexamination of the patent for resolution of the question.

35 U.S.C. § 313 (2002). See also *Belkin*, 696 F.3d at 1382.

As to the *inter partes* reexamination statute, the PTO Director took the position that the “substantial new question” confined the scope of the reexamination; the PTAB could not consider “prior art not found to raise a substantial new question of patentability.” *Belkin*, 696 F.3d at 1382. The Director “argue[d] that reexamination is ordered only ‘for resolution of the question’ identified by the Director as a substantial new question of patentability”—and not other issues. *Ibid.*

The Federal Circuit agreed. The relevant statute, Section 313, “require[d] the Director to order reexamination ‘for resolution of the question.’” *Belkin*, 696 F.3d at 1382. This statute was “clear,” the court found, in that the “‘question’ is the same substantial new ‘question’ of patentability found by the Director under § 312(a).” *Ibid.* Ultimately, the reexamination “*may not include* other prior art than what constituted the basis of the Director’s determination of a sub-

stantial question of patentability.” *Id.* at 1383 (emphasis added).

The Federal Circuit’s construction of identical language in the *inter partes* reexamination context highlights the error it made here.

3. There is a clear reason that Congress crafted the statute this way. As we explained (*supra*, 12-15), in using the term “substantial *new* question of patentability,” Congress underscored its intent for *ex parte* reexaminations to address issues that the PTO had not previously considered. These reexaminations are not an avenue for third parties to take a second bite at the apple as to prior art arguments that the PTO had already considered. The question must be a “new” one.

Nor are *ex parte* reexaminations an avenue by which to subject an issued patent to a full patentability review. To be sure, such a procedure exists—the reissue proceeding. But that requires an even higher threshold for initiation: an admission by the patent holder of actual inoperability or invalidity of the patent. To subject a patent that has met the lower threshold of having a substantial new question of patentability to the same review as one that is so fatally defective that the patent holder admits its invalidity upsets the careful balancing act performed by Congress in enacting different post-grant review regimes.

It is thus apparent that Congress intended for the “substantial new question of patentability” standard to form a bulwark against “abusive tactics and harassment of patentees through reexamination.” H.R. Rep. No. 120, 107th Cong., 1st Sess. 3 (2001). That is why Congress created boundaries on

the scope of an *ex parte* reexamination proceeding—once the “substantial new question of patentability” is resolved, the reexamination must conclude. The decision below guts this manifest congressional purpose.

### **III. The Federal Circuit’s Persistent Use Of Its Rule 36 Enhances The Need For Review.**

Although the court of appeals necessarily decided the question presented here, it declined to issue a written opinion, choosing instead to summarily affirm via use of its Circuit Rule 36. This is now a pattern; the Federal Circuit has repeatedly invoked its Circuit Rule 36, deciding each case raising this question with a single word—“Affirmed.” See, *e.g.*, *In re Pactiv LLC*, Nos. 14-1066, -1067, -1068, -1069, -1070 (Fed. Cir.).

The Federal Circuit cannot avoid answering thorny questions of statutory interpretation by routinely issuing single-word summary affirmances. The Court should grant plenary review to resolve the question presented. Alternatively, it should grant the petition, vacate the decision below, and remand for further proceedings.

#### **A. The interpretation of Section 304 governs the outcome of this case.**

The case is a proper vehicle to resolve the question presented. If the “substantial new question” of patentability delineates the proper scope of an *ex parte* reexamination, then the examiner was wrong to issue final rejections of several claims on the basis of prior art references outside the scope of the “substantial new question.”

Although the PTAB rejected petitioner’s legal argument, it implicitly recognized that this issue was outcome determinative. The PTAB, for example, cited without challenge petitioner’s demonstration that, if petitioner were correct as to the proper scope of an *ex parte* reexamination, it would be entitled to the allowance of several claims. See, *e.g.*, App., *infra*, 8a, 17a.

The government’s brief in the Federal Circuit further confirms that this issue controls the case. The government contended that, in an earlier appeal involving different patents, petitioner Pactiv “made the very same arguments”—that the examiner erred in “making a rejection in a first (or later) Office action that is based on a prior art reference, or combination of references, that is not found to raise an SNQ in the Examiner’s order granting reexamination.” App., *infra*, 182a-183a. Had petitioner “prevailed” on this ground, the government asserts that the Federal Circuit “would have reversed one or more rejections of record and remanded to the Board.” *Id.* at 184a.

If we are correct as to the law, reversal and remand to the PTO for reinstatement of the relevant claims is required.

**B. The Federal Circuit may not insulate legal questions from this Court’s review via repeated use of its Circuit Rule 36.**

The use of a summary affirmance below is no reason to deny review; “the Court grants certiorari to review unpublished and summary decisions with some frequency.” Stephen M. Shapiro et al., *Supreme Court Practice* 264 (10th ed. 2013). It routinely considers unpublished determinations. See, *e.g.*, *Bank of*

*Am., N.A. v. Caulkett*, 135 S. Ct. 1995 (2015); *Law v. Siegel*, 134 S. Ct. 1188 (2014); *Wilkins v. Gaddy*, 559 U.S. 34, 34 (2010); *Things Remembered, Inc. v. Petrarca*, 516 U.S. 124 (1995). See also *Smith v. United States*, 502 U.S. 1017, 1020 (1991) (Blackmun, J., dissenting from denial of certiorari) (“Nonpublication must not be a convenient means to prevent review.”). Recently, the Court reversed a summary affirmance by the Eighth Circuit. See *Christeson v. Roper*, 135 S. Ct. 891 (2015). Nothing about the Rule 36 posture renders this case inappropriate for review.

But there is far more lurking under the surface here. Justice Thomas recently criticized as “disturbing” that a court of appeals’ decision was “unpublished and therefore lacks precedential force.” *Plumley v. Austin*, 135 S. Ct. 828, 831 (2015) (Thomas, J., dissenting from denial of certiorari). This was in fact “another reason to grant review.” *Ibid.* See also Jeffrey Cole & Elaine E. Bucklo, *A Life Well Lived: An Interview with Justice John Paul Stevens*, 32 *Litigation* 8, 67 (Spring 2006) (Stevens, J., indicating unpublished decisions deserve a closer look “on the theory that occasionally judges will use the unpublished opinion as a device to reach a decision that might be a little hard to justify”).

The Federal Circuit has taken the process of using unpublished opinions “to avoid creating binding law for the Circuit” (*Plumley*, 135 S. Ct. at 831) to a new extreme—it routinely declines to issue an opinion *at all*. Recent statistics show that, in cases (like this one) appealed from the Patent Trial and Appeal Board, the Federal Circuit uses a Rule 36 summary affirmance 57% of the time. See Jason Rantanen, *Data on Federal Circuit Appeals and Decisions*, Patent-

ly-O (June 2, 2016), <https://perma.cc/YN5N-8KLC>. And it issues Rule 36 affirmances in 43% of cases appealed from the district court. *Ibid*.

Whatever their value may be in pedestrian cases, summary affirmances are not a means to repeatedly avoid outcome-dispositive questions of statutory interpretation. Review is thus warranted.

**C. Alternatively, the Court should grant, vacate, and remand.**

While plenary review is appropriate in these circumstances, the Federal Circuit’s repeated failure to address the important question of statutory interpretation warrants a GVR at the very least.

Indeed, the Court takes this approach with some frequency to instruct the courts of appeals to consider arguments they failed to address. See *Webster v. Cooper*, 130 S. Ct. 456 (2009) (remanding to consider a case decided *before* the lower court issued its decision). The Court also remands upon the Solicitor General’s confession of error. See, *e.g.*, *France v. United States*, 136 S. Ct. 583, 584 (2015); *Nunez v. United States*, 554 U.S. 911 (2008). Similarly, the Court vacates and remands for consideration of legal questions when intervening decisions did not affect all of the lower court’s grounds for decision. See, *e.g.*, *Wellons v. Hall*, 130 S. Ct. 727 (2010).

This Court has previously issued a GVR “[i]n the absence of an opinion clearly setting forth the views” of the Federal Circuit. *Dennison Mfg. Co. v. Panduit Corp.*, 475 U.S. 809, 811 (1986). There, the Court “grant[ed] the petition for certiorari, vacate[ed] the judgment, and remand[ed] the case to the Court of Appeals for further consideration.” *Ibid*.

The same treatment is warranted here. A GVR will ensure that this important question is definitively resolved.

**CONCLUSION**

The petition for a writ of certiorari should be granted.

Respectfully submitted.

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AUGUST 2016

## **APPENDICES**

1a

**APPENDIX A**  
**IN THE UNITED STATES COURT OF**  
**APPEALS FOR THE FEDERAL CIRCUIT**

Nos. 2015-1457, 2015-1458

In re: PACTIV, LLC  
Appellant.

Appeals from the United States Patent and  
Trademark Office, Patent Trial and Appeal Board

March 16, 2016

Before TARANTO, LINN, and HUGHES, Circuit  
Judges.

PER CURIAM:

AFFIRMED. *See* Fed. Cir. R. 36.

**APPENDIX B**  
**PATENT AND TRADEMARK OFFICE**  
**BEFORE THE PATENT**  
**TRIAL AND APPEAL BOARD**

Appeal 2014-003880  
Reexamination Control 90/011,596  
US 6,315,921 B1  
Technology Center 3900

*Ex Parte* PACTIV, LLC  
Patent Owner and Appellant.

Request for Rehearing from  
the United States Patent and Trademark Office,  
Patent Trial and Appeal Board

January 30, 2015

Before LORA M. GREEN, RICHARD M.  
LEBOVITZ, and JEFFREY B. ROBERTSON, Ad-  
ministrative Patent Judges.

LEIBOVITZ, Administrative Patent Judge:

**REQUEST FOR REHEARING**

Patent Owner requests rehearing under 37 C.F.R. § 41.52 of the Decision on Appeal entered June 30, 2013 (“Decision”) on the ground that the Board provided no explanation for its decision not to apply *Belkin Int’l Inc. v. Kappos*, 696 F.3d 1379 (Fed. Cir. 2012) to this *ex parte* reexamination. Request for Rehearing filed August 27, 2014, 2–6.

In the Appeal, Patent Owner had argued that a substantial new question (SNQ) of patentability had been found for a specific combination of publications, but subsequently the Examiner had made additional rejections which were not part of the specific SNQs of patentability. Appeal Br. 10. Under, *Belkin* — an appeal of a final agency decision in an *inter partes* reexamination — Patent Owner argued that once the SNQ of patentability is overcome, “further rejection of those claims based on patentability exceeds the statutory authority granted to the PTO under the reexamination statute.” *Id.* at 11. Patent Owner requested that the case be remanded to the Examiner “with an order for allowance of claims 3–5, 11, 12 and 20–28 in their original form since in the Final Office Action these claims were not rejected based on a SNQ of patentability.” *Id.* at 13.

#### Findings of Fact

The following findings of fact are relevant to the new rejections set forth during the *ex parte* reexamination proceeding before the Examiner:

FF1. In response to a Request for *Ex Parte* Reexamination, the Examiner determined that (1) Komatsu as evidenced by the McKedy declaration; (2) Yoshikawa ’503 as evidenced by the McKedy declaration; and (3) Yoshikawa ’652 and McKedy ’375 patent raised substantial new questions of patentability as

to original claims 1–12. Order Granting Request for Ex Parte Reexamination 3, 4, and 5 (June 4, 2011).

FF2. In the Non-Final Office action of March 22, 2012, the Examiner set forth rejections based on the publications on which *ex parte* reexamination was ordered, but also set forth rejections based on newly cited Sakai, GB '853, and Hamon which were not part of the original SNQ of patentability. Non-Final Office Action 5–7 and 8–9. Several of these new rejections did not involve any of the publications that were the basis of the original SNQ of patentability. *Id.*

FF3. In response to the Non-Final Office Action, Patent Owner added new claims 13–28. Amendment and Response to Non-Final Office Action 8 (May 18, 2012). Patent Owner did not challenge the Examiner's citation to Sakai and GB '853 as outside the scope of the SNQ of patentability, but instead specifically addressed the publications as they pertained to the grounds of rejection. *Id.* at 19.

FF4. A subsequent supplemental amendment was filed by Patent Owner in which the *Belkin* issue was raised. Supplemental Amendment 10–12 (November 12, 2012). Patent Owner argued that 10 rejections were set forth by the Examiner, but 8 of the rejections were not part of the specific SNQ. *Id.* at 12. These rejections involved, *inter alia*, Sakai, GB '853, and Hamon. *Id.* *Belkin* was published October 2, 2012 and, therefore, could not have been addressed in the response filed on May 18, 2012.

FF5. The Examiner entered a Final Rejection, but did not enter the supplemental amendment or address the *Belkin* issue because the supplemental amendment was not timely filed and was not consid-

ered by the Examiner to meet any of the circumstances under which the rules should be suspended. Final Rejection 29–30 (November 19, 2012).

FF6. Patent Owner did not petition the Director under 37 C.F.R. § 1.181 to request entry of the amendment.<sup>1</sup>

FF7. Although the Examiner did not address *Belkin* in the Final Rejection, the Examiner considered the issue in the Answer. Answer 4–8

#### Discussion

In the Decision, it was explained that *Belkin* involved an *inter partes* reexam proceeding which invokes a different statutory and regulatory scheme than *ex parte* reexamination. Decision 6. Indeed, *Belkin* involved an appeal by the Third Party Requester of the Director’s decision that certain prior art did not raise a substantial new question of patentability, a factual situation that cannot arise in *ex parte* reexamination.

In addition, to the extent that *Belkin* may be relevant to *ex parte* reexamination, *Belkin* addressed the ability of the Director to make new grounds of rejection during the course of a reexamination. The Federal Circuit stated:

*Inter partes* reexamination is not totally limited to those issues suggested by the re-

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<sup>1</sup> Procedurally, under 75 Fed. Reg. 36357 which became effective June 25, 2010, “[i]n order to preserve the right to have the BPAI [now the PTAB] review of the SNQ issue, a patent owner must first request reconsideration of the SNQ issue by the examiner.” Since Patent Owner raised the *Belkin* issue once again in the Appeal Brief, and the Examiner responded, it is moot that the non-entered amendment is not part of the record.

quester that present a substantial new question of patentability. Indeed, the PTO may make any new rejection, as long as that rejection also meets the substantial new question of patentability requirement. *See* 35 U.S.C. § 303(a) (“On his own initiative, and any time, the Director may determine whether a substantial new question of patentability is raised by patents and publications discovered by him . . . .”). Thus, the scope of reexamination may encompass those issues that raise a substantial new question of patentability, whether proposed by the requester or the Director, but, unless it is raised by the Director on his own initiative, it only includes issues of patentability raised in the request under § 311 that the Director has determined raise such an issue.

*Belkin*, 696 F.3d at 1383.

Importantly, Patent Owner does not contend that the rejections applied by the Examiner that were absent from the Order Granting Ex Parte Reexamination do not raise a substantial question of patentability. Accordingly, we are not persuaded that we misapprehended or overlooked any points identified by Patent Owner in the Decision.

REHEARING DENIED

7a

**APPENDIX C**  
**PATENT AND TRADEMARK OFFICE**  
**BEFORE THE PATENT**  
**TRIAL AND APPEAL BOARD**

Appeal 2014-001667  
Reexamination Control 90/011,597  
US 6,395,195  
Technology Center 3900

*Ex Parte* PACTIV, LLC  
Patent Owner and Appellant.

Request for Rehearing from  
the United States Patent and Trademark Office,  
Patent Trial and Appeal Board

January 30, 2015

Before LORA M. GREEN, RICHARD M.  
LEBOVITZ, and JEFFREY B. ROBERTSON, Ad-  
ministrative Patent Judges.

LEIBOVITZ, Administrative Patent Judge:

**REQUEST FOR REHEARING**

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C.F.R. § 41.52 of the Decision on Appeal entered June

30, 2013 (“Decision”) on the ground that the Board provided no explanation for its decision not to apply *Belkin Int’l Inc. v. Kappas*, 696 F.3d 1379 (Fed. Cir. 2012) to this *ex parte* reexamination. Request for Rehearing filed August 27, 2014, 2–6.

In the Appeal, Patent Owner had argued that a substantial new question (SNQ) of patentability had been found for a specific combination of publications, but subsequently the Examiner had made additional rejections which were not part of the specific SNQs of patentability. Appeal Br. 10.

Under, *Belkin* — an appeal of a final agency decision in an *inter partes* reexamination — Patent Owner argued that once the SNQ of patentability is overcome, “further rejection of those claims based on patentability exceeds the statutory authority granted to the PTO under the reexamination statute.” *Id.* at 12. Patent Owner requested that the case be remanded to the Examiner “with an order for allowance of claims 1–4, 6, 8, and 11–25 in their original form since in the Final Office Action these claims were not rejected based on a SNQ of patentability.” *Id.* at 14.

#### Findings of Fact

The following findings of fact are relevant to the new rejections set forth during the *ex parte* reexamination proceeding before the Examiner:

FF1. In response to a Request for *Ex Parte* Reexamination, the Examiner determined that the following prior art raised substantial new questions of patentability as to original claims 1–12: (1) Komatsu as evidenced by the McKedy declaration; (2) Yoshikawa ’503 as evidenced by the McKedy declaration; and (3) Yoshikawa ’652 and McKedy ’375 patent. Order

Granting Request for *Ex Parte* Reexamination 3,4, and 5 (June 3, 2011).

FF2. In the Non-Final Office action of March 22,2012, the Examiner set forth rejections based on the publications on which *ex parte* reexamination was ordered, but also set forth rejections based on newly cited Hamon, Sakai, and Graf which were not part of the original SNQ of patentability. Non-Final Office Action 5 and 6–14. Several of these new rejections did not involve any of the publications that were the basis of the original SNQ of patentability. *Id.*

FF3. In response to the Non-Final Office Action, Patent Owner added new claims 11–25. Amendment and Response to Non-Final Office Action 8 (May 18,2012). Patent Owner did not challenge the Examiner’s citation to Hamon, Sakai, and Graf as outside the scope of the SNQ of patentability, but instead specifically addressed the publications as they pertained to the grounds of rejection. *Id.* at 11–13 and 26–28.

FF4. A subsequent supplemental amendment was filed by Patent Owner in which the *Belkin* issue was raised. Supplemental Amendment 10–12 (November 12,2012). Patent Owner argued that 14 rejections were set forth by the Examiner which were not part of the specific SNQ. *Id.* at 12. These rejections involved, *inter alia*, Hamon, Sakai, and Graf. *Id.* *Belkin* was published October 2,2012 and, therefore, could not have been addressed in the response filed on May 18,2012.

FF5. The Examiner entered a Final Rejection, but did not enter the supplemental amendment or address *Belkin* because the supplemental amend-

ment was not timely filed and was not considered by the Examiner to meet any of the circumstances under which the rules should be suspended. Final Rejection 30 (November 19,2012).

FF6. Patent Owner did not petition the Director under 37 C.F.R. § 1.181 to request entry of the amendment.<sup>1</sup>

FF7. Although the Examiner did not address *Belkin* in the Final Rejection, the Examiner considered the issue in the Answer. Answer 4–8

#### Discussion

In the Decision, it was explained that *Belkin* involved an *inter partes* reexam proceeding which invokes a different statutory and regulatory scheme than *ex parte* reexamination. . Decision 6. Indeed, *Belkin* involved an appeal by the Third Party Requester of the Director’s decision that certain prior art did not raise a substantial new question of patentability, a factual situation that cannot arise in *ex parte* reexamination.

In addition, to the extent that *Belkin* may be relevant to *ex parte* reexamination, *Belkin* addressed the ability of the Director to make new grounds of rejection during the course of a reexamination. The Federal Circuit stated:

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<sup>1</sup> Procedurally, under 75 Fed. Reg. 36357 which became effective June 25, 2010, “[i]n order to preserve the right to have the BP AI [now the PTAB] review of the SNQ issue, a patent owner must first request reconsideration of the SNQ issue by the examiner.” Since Patent Owner raised the *Belkin* issue once again in the Appeal Brief, and the Examiner responded, it is moot that the non-entered amendment is not part of the record.

*Inter partes* reexamination is not totally limited to those issues suggested by the requester that present a substantial new question of patentability. Indeed, the PTO may make any new rejection, as long as that rejection also meets the substantial new question of patentability requirement. *See* 35 U.S.C. § 303(a) (“On his own initiative, and any time, the Director may determine whether a substantial new question of patentability is raised by patents and publications discovered by him . . . .”). Thus, the scope of reexamination may encompass those issues that raise a substantial new question of patentability, whether proposed by the requester or the Director, but, unless it is raised by the Director on his own initiative, it only includes issues of patentability raised in the request under § 311 that the Director has determined raise such an issue.

*Belkin*, 696 F.3d at 1383.

Importantly, Patent Owner does not contend that the rejections applied by the Examiner that were absent from the Order Granting Ex Parte Reexamination do not raise a substantial question of patentability. Accordingly, we are not persuaded that we misapprehended or overlooked any points identified by Patent Owner in the Decision.

REHEARING DENIED

12a

**APPENDIX D**  
**PATENT AND TRADEMARK OFFICE**  
**BEFORE THE PATENT**  
**TRIAL AND APPEAL BOARD**

Appeal 2014-003880  
Reexamination Control 90/011,596  
US 6,315,921 B1  
Technology Center 3900

PACTIV, LLC

Patent Owner and Appellant.

June 30, 2014

Before LORA M. GREEN, RICHARD M.  
LEBOVITZ, and JEFFREY B. ROBERTSON, Ad-  
ministrative Patent Judges.

LEIBOVITZ, Administrative Patent Judge:

**DECISION ON APPEAL**

This is a decision on an appeal by Patent Owner Pactiv LLC, from the Patent Examiner's rejections of claims 1–6 and 8–28 in this *ex parte* reexamination proceeding. The Board's jurisdiction for this appeal is under 35 U.S.C. §§ 6(b), 134(b), and 306. We affirm.

**I. STATEMENT OF CASE**

This appeal involves US 6,315,921 (“the ’921 patent”), which issued November 13, 2001. The named inventors are Gary R. DelDuca, Alan E. Deyo, Vinod K. Luthra, and Wen P. Wu. A Request for *Ex Parte* Reexamination of the ’921 patent was submitted by a third-party requester on March 24, 2011.

Claims 1–28 are pending. Claims 1–6 and 8–28 stand rejected by the Examiner. Final Rej’n (dated November 19, 2012). Claims 1–12 are original claims. Claims 11–25 were added during the reexamination.

The real party in interest in this *ex parte* reexamination proceeding is the patent owner, Pactiv LLC. Appeal Br. 2 (dated May 14, 2013.) Patent Owner states that it is involved in litigation involved in the ’095 patent. This litigation is against Multisorb Technologies, Inc. in Civil Action No. 10-cv-07609 (*Pactiv Corporation v. Multisorb Technologies, Inc.*) in the United States District Court, Northern District of Illinois in which

U.S. Patent Nos. 6,183,790; 5,698,250; 5,948,457; 5,811,142; 6,231,905; 6,315,921 and 6,395,195 have been asserted. *Id.* Reexaminations have been instituted on all seven asserted patents. *Id.*

An oral hearing was held April 30, 2014. A transcript of the hearing will be entered into the record in due course.

The technology in the ’921 patent involves packaging for meat. The ’921 patent teaches that “[p]ackaging systems which provide extremely low levels of oxygen are desirable because it is well known that the fresh quality of meat can be preserved longer under anaerobic conditions than under aerobic conditions.” Col. 1, 11. 41–47. The ’921 patent

describes prior art systems in which the atmosphere is evacuated of oxygen and optionally filled with gases other than oxygen to preserve the meat. Col. 1, 1. 48 to col. 2, 1. 41. One problem in storing meat is that it oxidizes and turns an undesirable brown color.

It is critically important to quickly remove the oxygen from meat to prevent it from turning brown. Especially important in preventing the irreversible change from red to brown is the rate at which oxygen is scavenged. If oxygen is removed quickly, the packaged meat turns a purple red color. This purple red color quickly “blooms” to a bright red color upon removal of the outer layer of packaging.

Col. 2, 11. 35–41.

The '921 patent describes the invention as providing “an iron-based oxygen scavenging packet which exhibits an increased rate of oxygen absorption especially in the confines of a concomitant meat packaging system.” Col. 2, 1. 66 to col. 3, 1. 2. The '921 patent claims an oxygen scavenging packet which comprises an iron based oxygen absorber and an oxygen uptake accelerator. The “oxygen uptake accelerator accelerates the rate of oxygen uptake of the iron-based absorber.” Col. 3, 11. 5–6. The accelerator can be water, acids, and other electron acceptors. Col. 3, 11. 1012.

The concept of using an oxygen scavenger in packaging systems to prevent the detrimental effect of oxygen exposure is acknowledged in the patent not to be new. Col. 2, 11. 42–45. The '095 patent writes in the background section: “Several oxygen scaven-

gers utilize the oxidation of particulate iron as a method to absorb oxygen.” Col. 2, 11. 44–46. The background also states that “[a] small amount of water is essential for this reaction.” Col. 2, 11. 46–47. The claims are directed to an oxygen absorber comprising iron and a liquid oxygen uptake accelerator comprising water, both which were acknowledged in the patent’s background section to be known ways of reducing oxygen in meat packages.

#### Claims

Independent claims 1 and 8 are reproduced below. All of the claims recite that the “the oxygen absorber is capable of reducing the oxygen content of a predetermined volume.” That limitation is at issue in this proceeding, and for convenience is referred to as the “capable of reducing oxygen content” limitation.

1. An oxygen scavenging packet, comprising:
  - a. an oxygen permeable material formed into a closed packet for holding and oxygen absorber;
  - b. an oxygen absorber comprising iron within the packet of (a); and
  - c. a liquid oxygen uptake accelerator, said accelerator comprising water, said accelerator present in an amount relative to the amount of oxygen absorber, such that when the liquid accelerator and oxygen absorber are brought into contact, the oxygen absorber is capable of reducing the oxygen content of a predetermined volume containing about 2 vol % oxygen to less than 0.5 vol. % oxygen at a temperature of about 34° F. in no more than 90

minutes after said accelerator and oxygen absorber are brought into contact.

8. A method of reducing the oxygen concentration in an enclosed space comprising:

a. placing an oxygen scavenging packet within said enclosed space, said oxygen scavenging packet comprising:

i. an oxygen permeable material formed into a closed packet; and;

ii. an oxygen absorber within said closed packet, said oxygen absorber comprising iron;

b. introducing a liquid oxygen uptake accelerator comprising water directly onto said oxygen absorber, wherein said liquid oxygen uptake accelerator is introduced in an amount relative to the amount of said oxygen absorber, such that when the oxygen uptake accelerator and oxygen absorber are brought into contact, the oxygen absorber is capable of reducing the oxygen content of a predetermined volume containing about 2 vol % oxygen to less than 0.5 vol % oxygen at a temperature of about 34° F in no more than 90 minutes after said oxygen uptake accelerator and oxygen absorber are brought into contact.

### Rejections

The claims stand rejected under 16 grounds of rejection, which are listed in the Appeal Brief on pages 7–8. For convenience, we will refer to the grounds of rejection discussed below by the numbering set forth in the Appeal Brief.

## II. SNQ ISSUES

Patent Owner contends that 12 of the 16 rejections set forth by the Examiner were not part of the original SNQs of patentability, and, therefore, prohibited under *Belkin Intl Inc. v. Kappos*, 696 F.3d 1379 (Fed. Cir. 2012). Appeal Br. 10. According to Patent Owner, *Belkin* affirmed the Board's decision not to consider any references that the Director had decided did not form a substantial new question (SNQ) of patentability. *Id.* Although *Belkin* involved an *inter partes* reexamination, Patent Owner contends that it is pertinent to this *ex parte* reexamination because the statutes are comparable. *Id.* at 9–10. Based on *Belkin*, Patent Owner contends that the Board should not reach the rejections in this appeal because they involve references and combination of references that were not part of the original SNQ of patentability. *Id.* at 10–11. Patent Owner argues “to the extent that any amended, new or substituted claim overcomes the SNQ of patentability, further rejection of those claims based on patentability exceeds the statutory authority granted to the PTO under the reexamination statute.” *Id.* at 11. Patent Owner contends the rejections under the initial SNQ were overcome, and that the case should be remanded to the Examiner to allow the claims. *Id.* at 13.

*Belkin* involved an *inter partes* reexamination proceeding and therefore is not applicable to this *ex parte* reexamination. We decline to extend a holding in a specific *inter partes* reexamination proceeding to an *ex parte* reexamination proceeding, which was invoked under a different statutory and regulatory regime. See 35 U.S.C. § 303 (2002) and 37 C.F.R. § 1.510 for *Ex Parte* Reexamination; 35 U.S.C. § 312 (2011) and 37 C.F.R. § 1.913 (2002) for *Inter Partes* Reexamination.

Nonetheless, an SNQ was not found in Belkin. The court explicitly said:

Indeed, the PTO may make any new rejection, as long as that rejection also meets the substantial new question of patentability requirement. *See* 35 U.S.C. § 303(a) (“On his own initiative, and any time, the Director may determine whether a substantial new question of patentability is raised by patents and publications discovered by him . . . .”) Thus, the scope of reexamination may encompass those issues that raise a substantial new question of patentability, whether proposed by the requester or the Director, but, unless it is raised by the Director on his own initiative, it only includes issues of patentability raised in the request under § 311 that the Director has determined raise such an issue.”

Patent Owner also contends that the rejections based on Komatsu<sup>1</sup> and Yoshikawa<sup>2</sup> are improper because they do not raise an SNQ. Appeal Br. 29 and 33. In the initial request for reexamination, Requester stated that Komatsu and Yoshikawa were of record during prosecution of the '195 patent, but were not applied by the Examiner. Request 4 and 8. Because the publications were already of record, Patent Owner contends they are precluded from raising an SNQ of patentability.

“The existence of a substantial new question of patentability is not precluded by the fact that a pa-

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<sup>1</sup> Komatsu et al., US 4,166,807 issued September 4, 1979.

<sup>2</sup> Yoshikawa et al., US 4,127,503 issued November 28, 1978.

tent or printed publication was previously cited by or to the Office or considered by the Office.” 35 U.S.C. § 303(a). For example, it is proper to order a reexamination when “old art is being presented/viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request.” M.P.E.P. § 2642(II.A).

In this case, a declaration by George McKedy accompanied the Request. Mr. McKedy is employed by Multisorb Technologies, Inc. and carried out experiments based on Komatsu to show that the “capable of reducing oxygen content” limitation in the claims was met by Komatsu. Request 6. The declaration thus casts a new light on Komatsu.

Patent Owner contends that a declaration does not constitute prior art, and therefore is not properly cited in an SNQ. However, the declaration is not being cited as prior art, but rather to show a fact that existed on the filing date of the '921 patent, i.e., that Komatsu inherently meets the claimed “capable of reducing oxygen content” limitation. Yoshikawa describes experiments which are similar to those in Komatsu (Komatsu, col. 1,11. 6365) and thus the McKedy declarations casts a new light on it, as well.

### III. KOMATSU

Claims 1, 2, 6, 8, 9, and 13–16 stand rejected under 35 U.S.C. § 102(b) as anticipated by Komatsu as evidenced by the declaration by George McKedy. Ground 1 (Appeal Br. 7).

Independent claim 1 is drawn to an oxygen scavenging packet comprising: “a. an oxygen permeable material formed into a closed packet for holding an oxygen absorber; b. an oxygen absorber comprising

iron within the packet of (a); and c. a liquid oxygen uptake accelerator, said accelerator comprising water.” The claim is a product claim but recites that the packet has the following capability: “when the liquid accelerator and oxygen absorber are brought into contact, the oxygen absorber is capable of reducing the oxygen content of a predetermined volume containing about 2 vol % oxygen to less than 0.5 vol % oxygen at a temperature of about 34° F. in no more than 90 minutes after said accelerator and oxygen absorber are brought into contact.”

Independent claim 8 is drawn to a method of reducing the oxygen concentration in an enclosed space utilizing an oxygen scavenging packet with the same features of claim 1.

The Examiner contends that Komatsu anticipates claims 1 and 8, and claims 2, 6, 9, 10, and 13–16 which depend from the independent claims. Final Rej'n 6–7. The following findings of fact from Komatsu are pertinent to this determination.

#### Findings of Fact

K1. “In order to preserve foodstuffs, such as vegetables, fish, shellfish, meats, processed foodstuffs, such as potato chips, cakes, peanuts, etc., and so on, it is necessary to prevent the foodstuffs from getting moldy and from putrefying.” Komatsu, col. 1, 11. 7–11.

K2. Oxygen is said to cause the putrefaction and change in foodstuff quality. Komatsu at col. 1, 11. 21–25. The inventors describe their efforts to find an oxygen absorbent that is usable for preventing putrefaction and change in quality of food stuffs. *Id.* at col. 1, 11. 55–62.

K3. The inventors disclose they “found that an oxygen absorbent comprising at least one metal halide and iron containing 0.05 to 5% by weight of sulfur on the basis of the weight of iron does not involve such risk from hydrogen evolution, but does have sufficient oxygen-absorbing property.” Komatsu, col. 2,11. 14–21.

K4. “It is critical that iron constituting the oxygen absorbent contain 0.05 to 5% by weight, preferably 0.1 to 1 % by weight of sulfur on the basis of the weight of iron. A compound comprising a metal halide and iron containing less than 0.05% by weight of sulfur does not have the effect of suppressing evolution of hydrogen.” Komatsu, col. 2, 11. 29–34.

K5. “The oxygen-absorbing reaction by the oxygen absorbent of this invention utilizes reactions for forming hydroxides of iron. Therefore, it is essential that the oxygen absorbent contain water or a compound having water of hydration, or the system in which the oxygen absorbent is used contain steam. When the oxygen absorbent contains water, the water may be free water or water of hydration.” Komatsu, col. 3, 11. 26–33.

K6. Requester cited the examples in Table 6 of Komatsu for describing water in an amount that meets the claim limitation of an uptake accelerator “being present in said packet in an amount between about 0.2 and 1.4 mL per 2.5 grams of iron.”

Example 3 of Komatsu teaches in Run No. 1 described in Table 6 a composition consisting of 2 grams of iron powder, 2 grams of NaCl and .4 grams (approximately .4 mL) of water used to absorb oxygen. Runs No.2 and 3 of the same example use the same ratio of wa-

ter to iron (.4 mL of water to 2 grams of iron) but vary the oxygen absorbing composition by adding additional fillers. Thus, in all three of these examples, Komatsu teaches a ratio of .5 mL of water per 2.5 grams of iron, which is within the range of from .2 mL to 1.4 mL of water per 2.5 grams of iron, claimed in the '195 patent.

#### Request for Reexamination 6.

K7. "A filler may be added to the oxygen absorbent in order to increase the oxygen absorption rate and the amount of oxygen absorbed and to make handling of the oxygen absorbent easy." Komatsu at col. 3, 11. 6063. The fillers include active carbon, active clay, colloidal silica, silica alumina gel, and anhydrous silica. *Id.* at col. 3, 11. 63 to col. 4, 11. 3.

K8. Example 1 tests the oxygen absorbing properties of a "variety of oxygen absorbent" which "were prepared by mixing 1 gr of Fe powder containing 0.2% of S and each of the metal halides shown in Table 1." Komatsu at col. 5, 11. 37-40.

K9. The iron is placed in a perforated polyethylene film-laminated bag. Komatsu at col. 5, 11. 41-42.

#### Discussion

Komatsu describes a similar problem to the one described in the '921 patent of preserving the quality of food, including meats. K1-K2. Oxygen is said by Komatsu to be the cause of the change in food quality during storage. K2. The '921 patent also identifies oxygen as the culprit in meat spoilage. '921 patent at col. 1, 11. 41-47. Komatsu and the '921 patent take the same approach to reduce the oxygen content in

the package that contains the food. Komatsu utilizes iron, characterizing it as an oxygen absorbent. K3–K4. Claims 1 and 8 also use iron as an oxygen absorbent (“oxygen absorber”). Komatsu states that water is essential to promote the oxygen absorbing reaction, and uses it in its examples. K5–K6. Claims 1 and 8 require a liquid oxygen uptake accelerator comprising water. Komatsu thus teaches both elements recited in independent claims 1 and 8 responsible for removing oxygen from the package environment in which the food is stored.

Komatsu also describes the iron and water as being present in a perforated polyethylene film-laminated bag (K9), meeting limitation a. of claims 1 and 8 of “an oxygen permeable material formed into a closed packet” and an oxygen absorber” in the packet. Thus, all three structural limitations of claims 1 and 8 are described by Komatsu.

The claims also have a functional limitation that “when the liquid accelerator and oxygen absorber are brought into contact, the oxygen absorber is capable of reducing the oxygen content of a predetermined volume containing about 2 vol % oxygen to less than 0.5 vol % oxygen at a temperature of about 34° F. in no more than 90 minutes after said accelerator and oxygen absorber are brought into contact.” Komatsu does not expressly describe that its oxygen absorbent system possesses this property. However, Komatsu describes all three of the recited structural elements in claim 1 and 8. The '921 patent does not describe any special way in which the reduction of oxygen was achieved other than by varying the ratio of the liquid accelerator (water) and oxygen absorbent (iron). '921 patent at e.g., col. 7, 1. 5 to col. 8, 1. 28; col. 11. The Requester provided evidence that the amounts of

liquid uptake accelerator and oxygen absorbent described in the '921 patent as providing the functional benefits fell with the range described in Komatsu. Request 5. Patent Owner did not provide adequate evidence to rebut this evidence. It was, therefore, reasonable for the Examiner to have believed that the elements described in Komatsu, which are identical to those which are claimed, also possess the claimed functional property. See *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977); *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990)

In reaching the anticipation determination, the Examiner relied on the McKedy declaration. Final'n Rej. 6–7. Mr. McKedy testified in his declaration that he “conducted an experiment in accordance with Example 3, Run 2 of Komatsu, to determine the efficacy of that composition in a refrigerated environment.” McKedy Decl. ¶ 7. Mr. McKedy stated that he “duplicated the Example described by Komatsu as closely as possible, to determine the results at refrigerated temperatures, and with an initial oxygen content of approximately 2.0%.” *Id.* at ¶ 9. However, as pointed out by Patent Owner, Mr. McKedy did not include sulfur in its example which is said by Komatsu to be “critical” in its formulation. K3–K4. Mr. McKedy did not also use the same perforated polyethylene film-laminated bag described in Komatsu. K9. Because of these differences and others identified by Patent Owner between Komatsu's example and what Mr. McKedy did in his experiments (Appeal Br. 22–24), we give this declaration little weight. Nonetheless, the results described in the declaration are consistent with the Examiner's determination that a composition having the amounts of water and iron described in Komatsu would meet the functional limitations of claims 1 and 8. Since it is un rebutted that

iron and water are present in the same amounts in both Komatsu and in the '921 patent, it is unnecessary to solely rely on the McKedy declaration to have established a reasonable basis upon which to believe that Komatsu's composition meets the structural limitations of claims 1 and 8.

In an attempt to rebut this reasonable presumption, Patent Owner argues that "Komatsu teaches in Example 3 that after 5 hours, the oxygen concentration varies from 0.5 to 20.3% depending on the run." Appeal Br. 28. The results of Example 3 are summarized in Table 6. Table 6 shows that different formulations, which vary in the filler and water hydration compound, achieved different reductions in the oxygen concentration present in the container. The Examiner relied on Run 2 (Answer 10–12), which achieved the greatest reduction in oxygen, not the other run numbers listed in Table 6. Thus, the fact that there was variation in the different runs does not contradict the results of Run 2.

Patent Owner did not provide sufficient evidence to rebut the determination that Komatsu's teaching of an oxygen absorber comprising iron and a liquid oxygen uptake accelerator in the claimed amounts would satisfy the "capable of reducing oxygen content" limitation of claims 1 and 8.

With respect to claims 14 and 16 which require that the oxygen scavenger packet is capable of reducing the levels of oxygen at a rate which prevents metmyoglobin formation in raw meat, Requester provided sufficient information that the amounts in Komatsu were the same as the amounts disclosed in the '921 patent as its invention. *Supra* at 12; Request 5. As these same amounts are specifically disclosed as the invention of the '921 patent, it is reasonable to

believe that they would prevent metmyoglobin formation, the purpose described in the '921 patent for its invention. Indeed, amounts outside this range were described as high risk for metmyoglobin formation. '921 patent at col. 7,11. 35–40.

When the evidence is considered in its entirety, we conclude that a preponderance of the evidence supports the determination that Komatsu anticipates the subject matter of claims 1 and 8, and dependent claims 2, 6, 9, and 13–16 which were not argued separately.

#### IV. YOSHIKAWA

Claims 1, 6, 8, 10, and 13–16 are stand rejected under 35 U.S.C.

§ 102(b) as anticipated by Yoshikawa as evidenced by the McKedy

Declaration. Ground 2 (Appeal Br. 7). The following findings of fact are pertinent to this determination:

Y1. “In order to preserve foodstuffs, such as vegetables, fish, shellfish, meats, processed foodstuffs, such as potato chips, cakes, peanuts, etc., and so on, it is necessary to prevent the foodstuffs from getting moldy and from putrefying.” Yoshikawa at col. 1,11. 8–12.

Y2. “[I]t was found that an oxygen absorbent powder in which a small amount of the metal halide is coated on the surface of metal powder and which has a minor water content rapidly absorbs oxygen in a sealed container, when it coexists with foodstuffs.” Yoshikawa at col. 2, 11. 15–19.

Y3. A group of metal powders are described in Yoshikawa. Yoshikawa at col. 3,11. 14–17. Iron is de-

scribed as “preferred.” *Id.* at col. 3, 16–17. Iron is used in the oxygen absorbent powder in the examples. *Id.* at cols. 5–12.

Y4. Yoshikawa describes “an oxygen absorbent comprising a metal powder coated with a definite amount of a metal halide and having a minor amount of water.” Yoshikawa at col. 1, 11. 5–7.

Y5. In Comparative Example 2 (at col. 6, 11. 31–33), Yoshikawa describes mixing 0.2 ml water with 1 gram iron. Requester provided evidence that these amounts fall “squarely” within the amounts disclosed in the ’921 patent as performing the claimed “capable of reducing oxygen content” limitation. Request for Reexamination 9–10.

#### Discussion

The Examiner found that “Yoshikawa ’503 teaches substantially the same invention as that found in Komatsu (and is, in fact, referred to in Komatsu) so the evidence provided by the McKedy declaration is pertinent to Yoshikawa ’503 as well. Final Rej’n 8. Thus Yoshikawa ’503 inherently meets the functional limitations regarding absorbent capacity set forth in the independents claim 1 and 8 of the ’921 patent.” Final Rej’n 8.

Patent Owner makes the same unavailing arguments as it did for the Komatsu rejection, particularly pointing out alleged deficiencies in the experiments performed by Mr. McKedy. Appeal Br. 31–33. However, as indicated above, one of the examples of Yoshikawa discloses amounts of iron and water which fall within amounts disclosed in the ’921 patent as effective in carrying out the claimed “reducing oxygen content limitation (Y5), giving the Examiner reasonable basis upon which to believe that the

“capable of reducing oxygen” limitation was met. *Best*, 562 F.2d at 1255; *Spada*, 911 F.2d at 708.

Patent Owner contends that the amount of oxygen absorbed in the example was poor. Appeal Br. 33. Mr. DelDuca testified:

Typically, the order of magnitude needed for absorption of oxygen in connection with retail cuts of meats is in hundred(s) of milliliters of oxygen. One skilled in the art would use not such an oxygen absorbent of Yoshikawa '503 with retail cuts of meat.

First DelDuca Decl. ¶ 26.

Independent claims 1 and 8 are not limited to use with retail meats. That argument is therefore unpersuasive for those claims.

With respect to claims 14 and 16, which require that levels of oxygen reduction are achieved in order to prevent metmyoglobin in raw meat, there is sufficient information that the amounts in Yoshikawa were the same as the amounts disclosed in the '921 patent as its invention. *Supra* at 16; Y5. As those same amounts are specifically disclosed as the invention of the '921 patent, it is reasonable to believe that they would prevent metmyoglobin formation, the purpose described in the '921 patent for its invention. Indeed, amounts outside this range were described as high risk for metmyoglobin formation. '921 patent at col. 7, 11. 35–40

When the evidence is considered in its entirety, we conclude that a preponderance of the evidence supports the determination that Yoshikawa anticipates the subject matter of claims 1, 6, 8, 10, and 13–16.

## V. SAKAI\_ AND GB '853

Claim 1, 2, 5, 6, 8, 9, 12–22 and 24 stand rejected under 35 U.S.C. § 103(a) as obvious over Sakai<sup>3</sup> and GB '853.<sup>4</sup> Ground 3 (Appeal Br. 7).

Sakai describes utilizing a “deoxidizer” to reduce the oxygen concentration in a container for preserving meat. Sakai at p. 1, 11. 15–20. The Examiner found that Sakai teaches “a method of preserving raw meat by sealing the meat in a gas impermeable container with an oxygen scavenger capable of reducing the oxygen concentration within the container to 5% or less within 24 hours and preferably to 0.1 % or less in 12 hours. Final Rej'n 4. (“The present invention requires as its element to reduce oxygen concentration in the container to 5 % or less within a specified interval of time, i.e., within 24 hours, preferably to 0.1 % or less within 12 hours, after closely-sealing the meat together with the deoxidizers.” Sakai at p. 4, 11. 69.) Iron is described by Sakai as preferred deoxidizer. Final Rej'n 9 (“Out of [the deoxidizers], one containing iron powder and electrolyte, e.g., iron powder and metal halide is preferable from the point of view of its ability.” Sakai at p. 3, 11. 15–17.) Sakai further teaches:

According to the present invention, meat is closely-sealed together with deoxidizers, and it is, therefore, possible to make the meat have a freshly reddish tinge caused by oxymyoglobin quickly as soon as the packaging container is opened.

Sakai at p. 2, 11. 5–8.

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<sup>3</sup> Sakai, JP 58–158129 issued Sept. 20, 1983.

<sup>4</sup> GB 1 566 853 issued Set. 23, 1997.

In sum, Sakai describes a deoxidizer comprising iron to preserve meat, meeting the claimed limitation of “an oxygen absorber comprising iron.”

Sakai does not describe a “liquid oxygen uptake accelerator” as recited in the claims. For this element, the Examiner cited GB '853. The Examiner found that GB '853 describes “a configuration for enhancing the activity of an oxygen absorber to optimize the production of an oxygen-free atmosphere necessary for oxygen sensitive materials, such as anaerobic bacteria cultures. The activity of the oxygen absorber is enhanced by contact with a reaction mediator and activator.” Final Rej'n 10. GB '853 discloses:

Thus, according to the present invention, there is provided an oxygen-absorbing agent, comprising an adsorption agent, metal powder or turnings and an activator.

GB '853 at p. 1, 1. 44–47.

Examples of metal powders or turnings which can be used include those of heavy metals, such as iron, manganese, cobalt, nickel and the like, iron powder being preferred.

GB '853 at p. 1, 11. 69–73.

Examples of activators which can be used include organic acids, such as citric acid, tartaric acid, dilute acetic acid and the like, dilute mineral acids, such as hydrochloric acid and sulphuric acid . . .”

GB '853 at p. 1, 11. 74–78.

For the production of an oxygen-poor or oxygen-free atmosphere, . . . the dry mixture ac-

ording to the present invention is brought into contact with a reaction mediator . . . which, in turn, simultaneously act as activator and reaction mediator. The preferred reaction mediator is water.

GB '853 at p. 2,11. 18–30.

Thus, GB '853 describes the claim oxygen absorbent comprising iron (the “oxygen-absorbing agent” at p. 1, 11. 44–77 and 69–73) and liquid oxygen accelerator (the “activator” or “reaction mediator” at p. 1,11. 74–78 and p. 2, 11. 18–30).

The Examiner concluded that it would have been obvious to one of ordinary skill in the art “to utilize a mediator/activator as taught in GB '853 with the oxygen scavenger of Sakai because, as disclosed by GB '853, it would provide enhanced absorption of oxygen thereby preventing the onslaught of oxidative deterioration of the meat.” Final Rej'n 10. With regard to the “capable of reducing oxygen content” limitation, the Examiner found that Sakai “teaches reduction of the oxygen concentration within the container to 5% or less within 24 hours and preferably to 0.1 % or less in 12 hours and GB '853 clearly teaches optimizing the activity of this same oxygen scavenger,” and thus optimization would have provided the claimed activity levels. *Id.* at 10–11.

Patent Owner contends that Sakai's results using a deoxidizer were “undesirable” and did not reduce the metmyoglobin quickly enough. Appeal Br. 35–36. Patent Owner also contends that Sakai's results describing the activity of its deoxidizer in producing a red meat color is not credible. *Id.* at 37.

We have considered this argument and do not find it persuasive. The Examiner relied upon GB '853

for its teaching of an oxygen absorber comprising iron and a liquid oxygen uptake accelerator. The credibility of Sakai's results in preventing meat from turning brown does not undermine the rejection, because GB '853 teaches the same oxygen scavenging system that is claimed and its efficacy in removing oxygen from a closed vessel in minutes (GB '853 at p. 2, 11. 54–56), providing a clear reason to have used it in Sakai's meat packaging system, even if Sakai's own system was not efficacious in removing oxygen.

Patent Owner contends that GB '853 is concerned with culturing anaerobic bacteria and has nothing to do with preserving meat as claimed. Appeal Br. 38–39. Patent Owner argues that GB '853 is directed to promoting bacterial growth while Sakai wants to prevent bacterial growth. *Id.*

As argued by Patent Owner, GB '853's focus is on culturing anaerobic bacteria in oxygen-poor and oxygen-free environments. GB '853 at p. 1, 11. 12–17. Yet, it does have broader disclosure, identifying the culture of anaerobic bacteria as an example: “For the production of an oxygen-poor or oxygen-free atmosphere, such as is necessary, for example, for culturing anaerobic bacteria.” GB '853 at p. 2, 11. 18–21.

Nonetheless, even if GB '853 is in a different field of endeavor as the claimed invention, this does not undermine the rejection. When prior art is not in the same endeavor as the claimed invention, it is still analogous prior art if it is “reasonably pertinent to the particular problem with which the inventor is involved.” *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004).

“A reference is reasonably pertinent if, even though it may be in a different field from that of the

inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." *In re Clay*, 966 F.2d at 659, 660 (Fed. Cir. 1992).

In this case, with clear statements about the advantages of a scavenger and activator for production of oxygen depleted atmospheres, one of skill in the art would not have read GB '853 so restrictively as to be limited to bacteria culture, but would have recognized its utility for other applications in which oxygen depletion was desired. Thus, we are not persuaded that one of ordinary skill in the art would not have found GB '853 pertinent because its main application was for bacteria. See Appeal Br. 38–40. None of these specific teachings about culturing bacteria detract from the more general disclosure that a scavenger and activator can be used effectively to reduce oxygen to achieve an oxygen-poor or oxygen-free atmosphere. In addition, there is no persuasive evidence that the GB '853 system would not work in the meat package of Sakai.

Patent Owner argues that the conditions in GB '853 are different from Sakai, e.g., GB '853 utilizes an anaerobic vessel while Sakai involves a meat packaging system comprising polystyrene trays exposed to air. Appeal Br. 39. Furthermore, Patent Owner contends that GB '853 differs "substantially in the amount of time to get to a desirable oxygen level." *Id.* "For example, the time for reducing the oxygen level to a desirable level in the present invention is measured in at least an hour or hours. . . . Example 1 of GB '853, on the other hand, discloses that a 'practically oxygen-free atmosphere is produced in

the anaerobic vessel' after only 'a few minutes.'" *Id.* at 40.

It is not evident how the alleged differences in conditions used in GB '853 as compared to meat storage would dissuade the skilled worker from applying GB '853 to Sakai. Patent Owner did not provide evidence that GB '853 system is inoperative or inefficient in removing oxygen from a closed vessel. Example 1 of GB '853 teaches that iron and citric acid (a liquid oxygen uptake accelerator) "[a]fter only a few minutes," produces "a practically oxygen-free atmosphere." GB '853 at p. 2, 11. 41–56. Therefore, it would have been reasonably expected that its combination of iron and an activator would deplete oxygen from a vessel, including the meat packaging container of Sakai.

With respect to difference in the time needed to remove oxygen from the packaging atmosphere, GB '853 teaches minutes and Sakai — using iron alone — teaches "preferably to 0.1 % or less in 12 hours." GB '853 at p. 2, 11. 41–46; Sakai at p. 4, 11. 6–9. This evidence shows that using iron as an oxygen scavenger is effective in reducing oxygen to a range of different desired levels, giving the Examiner reasonable basis to find that the specifically claimed "capable of reducing oxygen content" limitation could be achieved. Consistently, GB '853 contemplates varying the ratio of the iron and activator to achieve desired content of oxygen. GB '853 at p. 2, 11. 10–17.

Patent Owner provides a list of reasons as to why GB '853 would not have drawn the notice of one of ordinary skill in the art for use in Sakai. Appeal Br. 43. Specifically, Mr. DelDuca testified in paragraph 19 of his first declaration:

(1) there is no rate data disclosed in GB '853; (2) there is no volume of the anaerobic vessel disclosed in GB '853; (3) there is no disclosure of the amount of oxygen present in the anaerobic vessel when the oxygen-absorbing agent is added in GB '853; and (4) there is no comparative data disclosed in GB '853. In fact, it is unclear how anyone skilled in the art could find motivation with GB '853 as suggested by the Examiner when such relevant data is missing from the reference.

This argument is not persuasive. As discussed above, GB '853 teaches that iron and activator deplete oxygen from a vessel in minutes. Mr. DelDuca did not indicate how this clear statement of efficacy would have turned the skilled worker away from using such a system in any environment in which oxygen removal was desired.

Patent Owner also argues that GB '853 teaches that the agents in specific ratios are “critical to its ability to achieve its functionality.” Appeal Br. 44. However, Patent Owner did not explain how such “criticality” militates against using such amounts, or even different amounts, in Sakai’s meat packaging system for their known and expected function in depleting oxygen from an enclosed environment.

Patent Owner again reiterates the arguments about the problem of obtaining bloom. Appeal Br. 44–45. Sakai expressly identifies the problem of meat turning brown and the desire to make meat retain a reddish tinge without browning. Sakai at p. 1, 1. 30 top. 2 13. Patent Owner did not discover the problem. Sakai identifies oxygen as the cause of meat turning brown. *Id.* Sakai utilizes a deoxidizer, such as iron, to deplete oxygen in the same way as

does Patent Owner. *Id.* at p. 3. 11. 4–17. GB '853 describes an even more efficient system. Patent Owner has adopted a known way of depleting oxygen — the combination of iron and an activator disclosed in GB '853 — applied it to a meat packaging system, and obtained the expected result of retaining the desirable reddish tinge.

Patent Owner contends that the “use of a liquid oxygen uptake accelerator to speed the process is not suggested by GB '853, which specifically cites its precise ratio of materials as critical to its functionality, not the fact that it is activated.” Appeal Br. 40. This argument is not persuasive. GB '853 discloses:

For the production of an oxygen-poor or oxygen-free atmosphere, such as is necessary, for example, for culturing anaerobic bacteria, the dry mixture according to the present invention is brought into contact with a reaction mediator. The reaction mediator can be a solvent, for example water or ethylene glycol or a liquid acid, . . . which, in turn, simultaneously act as activator and reaction mediator. The preferred reaction mediator is water.

GB '853 at p. 2, 11. 18–30.

As soon as the reaction mediator comes into contact with the oxygen-absorbing agent, the moist mixture begins to absorb the oxygen comparatively quickly, with the simultaneous evolution of carbon dioxide when sodium carbonate is present.

GB '853 at p. 2, 11. 31–36.

It is evident from reading this disclosure that contact of the reaction mediator (such as water), with the oxygen-absorbing agent (iron), speeds up the absorption of oxygen by the oxygen-absorbing agent because oxygen absorption is said to be “comparatively quick[ ]” after contact with the mediator. Nonetheless, even were this not understood from reading GB ’853, one of ordinary skill in the art would have still had reason to use the combination of oxygen-absorbing agent and reaction mediator for their known and expected benefit in removing oxygen. While, GB ’853 did not suggest the speed of the process to produce meat bloom as argued by Patent Owner, GB ’853 clearly teaches that the activator speeds oxygen evacuation — the same problem addressed by Sakai.

In sum, we find that a preponderance of the evidence supports the Examiner’s determination that independent claims 1, 8, 17, 20, and 24, and dependent claims 2, 5, 6, 9, 12–16, 18, 19, 21, and 22 are prima facie obvious in view of Sakai and GB ’853.

## VI. SAKAI AND HAMON

Claim 1, 2, 4, 6, 8–10, and 13–23 stand rejected under 35 U.S.C. § 103(a) as obvious over Sakai and Hamon.<sup>5</sup> Ground 5 (Appeal Br. 7).

Sakai is cited by the Examiner for the same reasons as described in the rejection over Sakai and GB ’853. As mentioned, Sakai does not describe a liquid oxygen uptake accelerator as recited in the claims. However, Hamon describes both an oxygen absorbent and a liquid oxygen uptake accelerator to deplete a food packaging system of oxygen. Final Rej’n 12. The

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<sup>5</sup> Hamon, et al., EP 0468880 published January 29, 1992.

Examiner found it would have been obvious to one ordinary skill to have utilized the activators and containment system of Hamon with Sakai's oxygen scavenger "because it would provide enhanced absorption of oxygen thereby preventing the onslaught of oxidative deterioration of the meat." *Id.* at 13.

The following disclosure from Hamon is pertinent to the rejection:

H1. Hamon identifies a general problem for food products sensitive to oxygen:

Many products will degrade in contact with oxygen in the air and must be kept free of oxygen. In particular, food products are often packaged under vacuum or under an inert atmosphere, because the presence of oxygen [causes them] physical and chemical damage and biological.

Hamon at p. 1, 11. 4–6.

H2. Hamon give specific examples of very sensitive products:

When one is for very sensitive products to oxygen, especially fats or wet products such as mayonnaise, fruit, power solutions, or even glue, this type of absorber is inadequate. Indeed, sensitive products in the development of microorganisms must quickly be in a low-oxygen atmosphere. Absorbers must have a rate of absorption oxygen higher, and in this case a too long residence time in the air can affect their subsequent absorption and thus this the system reliability.

Hamon at p. 1, 11. 39–44.

H3. Haman states that the “present invention relates to a packaging system for absorbing oxygen and/or [ ] carbon dioxide, allowing storage and use in optimal conditions.” Hamon at p. 1, 11. 1–3.

H4. Hamon describes a composition for absorbing oxygen that comprises four elements: iron powder, “a support material, water retaining, [such] as silica gel,” an electrolyte (NaCl), and activated carbon. Hamon at p. 1, 11. 22–25.

H5. The support material “needs to retain water.” Hamon at p. 2, 1. 48. In addition to silica gel, Hamon discloses the support can be expanded clay and kaolinite annealed. *Id.* at 11. 46–48.

H6. Hamon describes placing the elements in a bag permeable to oxygen. Hamon at p. 1, 1. 28.

H7. The iron is maintained in a dry atmosphere until use, when “hydration of the support [comprising iron] are obtained by introducing electrolyte in the form of a brine at 17%.” Hamon at p. 2, 11. 51–52.

H8. Hamon describes an example in which a system comprising 2.2 grams of iron powder [oxygen absorber] in one compartment and 0.8 ml brine [oxygen uptake accelerator] in a second compartment is used. Hamon at p. 3. These values are equivalent to 0.8 ml brine/2.2 gram or 0.9 ml water/2.5 gram iron, which falls within the amount of “a ratio of between 0.2 ml and 0.8 ml of oxygen uptake accelerator to about 2.5 grams of iron” disclosed in the '921 patent as effective for oxygen depletion. '921 at col. 3, 11. 5–10; Answer 23–24.

## Discussion

Patent Owner makes the same unavailing arguments for Sakai as it did for the rejection over Sakai and GB '853. Appeal Br. 51–52.

Patent Owner contends that Hamon does address the deficiencies in Sakai. Appeal Br. 52.

Patent Owner contends that Hamon does not describe a liquid oxygen uptake accelerator. Patent Owner argues that water is retained by the support material described in Hamon. Appeal Br. 53. Specifically, Patent Owner contends: “Because Hamon’s absorber has very little free water, it does not function like the presently claimed liquid oxygen uptake accelerator (water) in the independent claims.” To support this position, Patent Owner relied upon declarations by Gary R. DelDuca, a co-inventor of the '921 patent. Mr. DelDuca is Technical Manager and/or Technical Sales Manager for the Patent Owner in the area of modified atmosphere packaging (MAP) for meats. First DelDuca Decl. ¶ 2. His responsibilities have included designing, developing, and implementing such modified atmosphere packaging for meat and processes using the same. *Id.*

Mr. DelDuca testified that, when the water is retained in the support material, “its consistency is like toothpaste. First DelDuca Decl ¶ 43. Mr. DelDuca testified that the claimed accelerator — water — “accelerates the rate of oxygen uptake of the oxygen absorber.” *Id.* Mr. DelDuca concludes that there “would be no expectation to one skilled in the art that the Hamon absorber with very little free water would work or function like the claimed liquid oxygen uptake accelerator of the independent claims.” *Id.*

This argument is not persuasive. It is true that Hamon describes its support material as “need[ing] to retain water.” H5. However, one of the support materials described in Hamon is silica (H4), which is also used by the ’921 patent. ’921 patent at col. 3 at 11. 59–62; col. 8 at 11. 17–21. As the materials are the same in both the ’921 patent and Hamon, the Examiner had reasonable basis to believe that they would be expected to function the same. *Best*, 562 F.2d at 1255. Mr. DelDuca did not sufficiently address the identity of support materials in his declaration. Thus, even if the materials were employed for different purposes, this does not alter the fact that the materials are the same and thus would be reasonably expected to behave in the same way. Answer 23–25.

Furthermore, silica is characterized in the ’921 patent as follows: “a water attracting agent such as silica gel can be used to attract water and at times to supply water in the packet initially.” ’921 patent at col. 2, 11. 46–49. Thus, even though silica attracts water, the evidence of record supports the Examiner’s position that water associated with silica gel can serve as an oxygen uptake accelerator. Mr. DelDuca did not address this fact. Mr. DelDuca also did not provide an adequate factual basis for concluding that the water in the support material as described by Hamon would not be capable of serving as an oxygen uptake accelerator.

“capable of reducing oxygen content” limitation

Patent Owner also argues “there would be no expectation of success to one skilled in the art using Hamon’s oxygen scavenger in the applications of retail cuts of raw meat disclosed with the claimed oxygen absorber of the present application.” Appeal Br.

54. Claims 1, 2, 4, 6, 8–10, and 13, however, do not require the oxygen absorber to perform in an environment with retail meat.

With respect to the “capable of reducing oxygen content” limitation, which is said prevent the formation of metmyoglobin in meat, Hamon describes iron and water (saline) in the same amounts disclosed in the ’921 patent said to be effective for this purpose (Answer 23–24; H8), giving the Examiner reasonable basis to believe that they would possess the recited properties, e.g., “capable of reducing the oxygen content of a predetermined volume containing about 2 vol % oxygen to less than 0.5 vol % oxygen at a temperature of about 34° F. in no more than 90 minutes after said oxygen uptake accelerator and oxygen absorber are brought into contact.” Paragraph 44 of Mr. DelDuca’s first declaration describes problems with achieving bloom but does not provide an adequate factual basis for the contention that iron and water in the same amounts as disclosed in the ’921 patent would not achieve this result.

Patent Owner argues that the combination of Sakai and Hamon is improper.

Sakai is directed to preserving meat and identifies meat such as “chicken, pork, beef, etc.” and fish such as “tuna, bonito, etc.” Page 3 of Sakai; DelDuca First Decl. 36. Hamon, on the other hand, specifically identifies the following products to be used with its packaging system: dried fish, pastries, mayonnaise, fruit, power solutions and glue. *Id.* None of these products has anything to do with Sakai. *Id.*

Appeal Br. 54.

This argument is not persuasive. Hamon generally teaches that food products are sensitive to oxygen, and makes specific mention of certain food products, including “fats.” H1–H2. Even if meat is not specifically mentioned, there is no indication that it is excluded from Hamon. Rather, Hamon’s teachings are said to be generally applicable to foods which are sensitive to oxygen. H1–H3. Sakai specifically teaches that red meat is sensitive to oxygen and that depleting oxygen from the environment in which the meat is stored preserves the meat’s red color. Sakai at p. 1, 1. 30 to p. 2, 1. 30. Consequently, one of ordinary skill in the art would have found Hamon’s solution pertinent to Sakai.

In sum, we find that a preponderance of the evidence supports the Examiner’s determination that 1, 2, 4, 6, 8–10, and 13–23 are *prima facie* obvious in view of Sakai and Hamon.

#### VII. CLAIM 17

Independent claim 17 is directed to a meat packaging system. Claim 17 recites, *inter alia*, “a retail raw cut of raw meat” and “an oxygen scavenging packet including an oxygen permeable material formed into a closed packet for holding an oxygen absorber, said oxygen absorber comprising iron within said closed packet, and a liquid oxygen uptake accelerator, said liquid oxygen uptake accelerator comprising water.” The claim also recites the “reducing oxygen content” limitation.

The claim stands rejected as set forth in Grounds 3, 5, 9, and 12. Patent Owner argues that the claims are nonobvious for the same reasons also addressed in these rejections. Appeal Br. 55.

With respect to the requirement of “retail cut of raw meat,” Patent Owner contends “Hamon and GB ’853 does not disclose, teach or suggest the use of a retail cut of raw meat.” Appeal Br. 55. However, the rejections involving these references also cite Sakai, which does disclose raw meat. Thus, this argument is unpersuasive.

In sum, a preponderance of the evidence supports the Examiner’s determination that claim 17 is prima facie obvious in view of Sakai and GB ’853 (Ground 3), Sakai and Hamon (Ground 5), Komatsu in view of the McKedy declaration (Ground 9), and Yoshikawa in view of the McKedy declaration.

#### VIII. GROUNDS 13 AND 14

Claims 25–28 stand rejected under 35 U.S.C. § 103(a) as obvious in view of Weinke, Sakai, and GB ’253. Ground 13.

Claims 25–28 stand rejected under 35 U.S.C. § 103(a) as obvious in view of Sakai, Hamon, and Weinke. Ground 14.

Independent claim 25 is directed to modified atmosphere package comprising “a retail cut of raw meat,” an oxygen absorber, and a liquid oxygen uptake accelerator. Independent claim 27 is drawn to method of manufacturing a modified atmosphere package with substantially the same features as claim 25.

Sakai has also been discussed. GB ’853 is cited as discussed above for their teaching of an oxygen absorbent and liquid oxygen uptake accelerator. Weinke is cited by the Examiner for its teaching of “a package for containing raw meats under anaerobic conditions during storage to prevent oxidative dete-

rioration of the meat prior to display for consumer purchase.” Answer 18; *see* Answer 19.

The Examiner determined it would have been obvious to one of ordinary skill in the art “to include an oxygen scavenger as taught in Sakai between the inner and outer containers of Weinke with the enhanced utilization of the activation means taught in GB ’853 because it would enhance the protection provided by the inert gas flushing of Weinke by absorbing any residual oxygen present with the enhanced action of the scavenger preventing the onslaught of oxidative deterioration of the meat.” Answer 18–19.

Patent Owner argues that Weinke only uses oxygen evacuation techniques. Appeal Br. 57. Citing to paragraph 21 of second declaration of Mr. DelDuca, Patent Owner argues that “the modified atmosphere packaging system of Weinke is undesirable with pigment-sensitive cuts of raw meat, especially those that are wrapped in plastic trays such as foam trays.” *Id.* Mr. DelDuca simply makes this conclusory statement without explaining the reason for the undesirability. Consequently, we give it little weight in view of the logical reason provided by the Examiner to include an oxygen absorber and uptake accelerator in Weinke’s meat packaging system.

In sum, we find that a preponderance of the evidence supports the Examiner’s determination that 25–28 are *prima facie* obvious in view of Weinke, Sakai, and GB ’253; and Sakai, Hamon, and Weinke.

#### IX. GROUNDS 15 AND 16

Claims 20–23 and 25–28 stand rejected under 35 U.S.C. § 103(a) as obvious in view of Weinke, Ko-

matsu, and the McKedy Declaration. Ground 15 (Appeal Br. 8).

Claims 20–23 and 25–28 stand rejected under 35 U.S.C. § 103(a) as obvious in view of Weinke, Yoshikawa, and the McKedy Declaration. Ground 16 (Appeal Br. 8).

Weinke, Komatsu, and Yoshikawa have already been discussed. The Examiner determined that it would have been obvious to one of ordinary skill in the art to have included the oxygen absorbent and accelerator of Komatsu and Yoshikawa in Weinke’s packaging system to enhance oxygen removal and prevent the deterioration of the meat. Answer 19–20. Patent Owner makes the same unpersuasive arguments already made. We thus conclude a preponderance of the evidence supports the Examiner’s determination that claims 20–23 and 25–28 are prima facie obvious.

#### X. OBJECTIVE EVIDENCE OF NONOBVIOUSNESS

Factual considerations that underlie the obviousness inquiry include the scope and content of the prior art, the differences between the prior art and the claimed invention, the level of ordinary skill in the art, and any relevant secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Relevant secondary considerations include commercial success, long-felt but unsolved needs, failure of others, and unexpected results. *KSR Intl Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007); *In re Soni*, 54 F.3d 746 (Fed. Cir. 1995). Secondary considerations are “not just a cumulative or confirmatory part of the obviousness calculus but constitute independent evidence of nonobviousness . . . [and] enable[] the court

to avert the trap of hindsight.” *Leo Pharm. Prods., Ltd. v. Rea*, 726 F.3d 1346, 1358 (Fed. Cir. 2013) (internal quotation marks and citations omitted). “This objective evidence must be ‘considered as part of all the evidence, not just when the decisionmaker remains in doubt after reviewing the art.’” *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012) (internal citations omitted).

#### A. LONG FELT NEED

Patent Owner contends that the problem of obtaining consistent blooming with retail cuts of pigment-sensitive raw meats has been present for many years. Appeal Br. 4–7.

About 25 years after the issuance of Weinke and numerous years after the issuance/publication of Yoshikawa ’503, Komatsu and Sakai, the Applicants filed an application in 1996, which the present invention claims benefit to, that discloses oxygen scavenging packet and packages, systems and methods that use the oxygen scavenging packet to assist in obtaining consistent blooming with retail cuts of pigment-sensitive raw meats, while extending the shelf life of these retail cuts of raw meat.

Appeal Br. 46.

Yoshikawa and Komatsu each disclose “meats” as a food product that experience mold and putrefaction during storage. Y1 and Kl. Iron and water, the same components in independent claims 1, 8, 17, 20, 25, and 27 are described by Yoshikawa and Komatsu to facilitate the preservation process by removing oxygen from the environment in which the food prod-

ucts are stored. Y2, Y5, K5, and K6. Patent Owner's arguments appear to be premised on the position that Yoshikawa, Komatsu, and Sakai, would not produce consistent blooming of raw meat. However, as discussed above, consistent bloom would have been reasonably expected to have been achieved because the same ratio of iron and water recited in the claims are described by Yoshikawa and Komatsu. Based on the evidence in the '095 patent, the skilled worker would have understood that these values are responsible for the "capable of reducing oxygen content" limitation and the consistent blooming which is said to be achieved.

The '921 patent also discusses other prior art methods that allow meat to bloom. '921 patent at col. 2, 11. 1–9. In view of this disclosure and the evidence discussed above, it cannot be concluded that the inventors solved a long felt need to achieve consistent blooming of meat.

#### B. COPYING

Patent Owner contends "[t]here is at least one company (Multisorb Technologies, Inc.) that is making, using, selling and offering for sale products that use the systems, products and/or methods described in the present invention. See Exhibit 3." Appeal Br. 47. Patent Owner states that it "believes that Multisorb Technologies, Inc. has copied its inventive concepts and Multisorb Technologies, Inc. has not received permission to use the inventive concepts of the present invention." *Id.*

Patent Owner has not provided sufficient evidence to establish copying. Exhibit 3 is a complaint by Patent Owner against Multisorb Technologies. The complaint alleges infringement by Multisorb of

the '921 patent (Exhibit 3), but does not state that Multisorb copied Patent Owner's technology in the '921 patent.

Patent Owner contends that the complaint is sufficient to establish copying since the evidence of such would not be accessible to them except through discovery and the complaint, itself, is sufficient because of Rule 11 obligations. Appeal Br. 48. However, Patent Owner has not pointed to a statement in the complaint [sic] alleging that Multisorb had copied the products claim in the '921 patent. Contrary to Patent Owner's contention, the Federal Circuit has required evidence of copying:

Not every competing product that arguably falls within the scope of a patent is evidence of copying. Otherwise every infringement suit would automatically confirm the nonobviousness of the patent. Rather, copying requires the replication of a specific product. This may be demonstrated either through internal documents, *see Akarnai Techs., Inc. v. Cable & Wireless Internet Servs., Inc.*, 344 F.3d 1186, 1196–97 (Fed. Cir. 2003); direct evidence such as disassembling a patented prototype, photographing its features, and using the photograph as a blueprint to build a virtually identical replica, *see Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1285 (Fed. Cir. 2000); or access to, and substantial similarity to, the patented product (as opposed to the patent), *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1027 (Fed. Cir. 1985), overruled on other grounds by, *Midwest In-*

dus., Inc. v. Karavan Trailers, Inc., 175 F.3d 1356, 1359 (Fed. Cir. 1999) (en bane)

Iron Grip Barbell Co., Inc. v. USA Sports, Inc., 392 F.3d 1317, 1325 (Fed. Cir. 2004).

Thus, we are not persuaded by Patent Owner's mere allegation that the claimed packaging system was copied.

### C. UNEXPECTED RESULTS

Patent Owner provides evidence of testing performed using Multiform's MRM 100 scavenger packet that was activated using an oxygen scavenger accelerator. Appeal Br. 49–50. According to Patent Owner, the experiment showed that “Multiform's MRM 100 scavenger packet with the claimed oxygen uptake accelerator produced a desirable result in that the retail cut of raw meat did not turn to an unacceptable brown color (metmyoglobin).” *Id.* at 49. On the hand, Patent Owner contends that results with the same packet, but without accelerator, were unacceptable.

Multiform's MRM 100 scavenger packet (without being activated with the claimed liquid oxygen uptake accelerator) took “approximately 30 hours for the percent oxygen to be reduced to approximately 0.5% (5,000 PPM) and more than 40 hours for the percent oxygen to be reduced to near 0.0% oxygen.” See also, col. 6, lines 10–37; FIG. 5 of U.S. Patent No. 5,928,560. This process using Multiform's MRM 100 scavenger packet without being activated with the claimed liquid oxygen uptake accelerator failed because the retail cut of raw meat turned an unacceptable brown color (metmyoglobin).

First DelDuca Decl. ¶ 37.

According to Mr. DelDuca:

This was a surprising and unexpected result since those skilled in the art believed that oxygen scavengers could not be used with retail cuts of raw meat because the activation times were too slow to prevent the raw meat from turning metmyoglobin.

First DelDuca Decl. ¶ 36.

Mr. DelDuca's testimony is not persuasive.<sup>6</sup>

First, it is taught in the prior art that the activity of oxygen absorbent is enhanced by the addition of a liquid oxygen uptake accelerator. Specifically, Komatsu teaches "it is essential that the oxygen absorbent contain water or a compound having water of hydration, or the system in which the oxygen absorbent is used contain steam." K5. Komatsu also teaches it "was found that the mixture of a metal powder, a metal halide and water has rapid oxidizing rate, U.S. Ser. No. 816,134 filed on July 15, 1977 now U.S. Pat. No. 4,127,503 [Yoshikawa]." Komatsu, col. 1, 11. 63–65. Hamon also teaches the addition of water to iron, the oxygen absorbent. H7 and H8. Accordingly, the observation that water enhanced the activity of iron would not have been unexpected because that result is described in the prior art.

The second questions is whether it would have been reasonably expected that the enhanced activity of the oxygen absorbent would "produced a desirable

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<sup>6</sup> We note that Mr. DelDuca did not identify the disclosure in US 5,928,560 where the conditions shown in Figure 5 were tested on meat.

result in that the retail cut of raw meat did not trim to an unacceptable brown color (metmyoglobin).” First DelDuca Decl. ¶ 37. Sakai was relied upon by the Examiner for its teaching of method for preserving meat using deoxidizers, making it “possible to make the meat have a freshly reddish tinge caused by oxymyoglobin quickly as soon as the packaging container is opened.” Sakai, p. 2, 11. 5–8. Based on this disclosure, there was a reasonable expectation that an oxygen scavenger could, under storage conditions, preserve the meat’s red color when opened.

Patent Owner takes the position that Saki is not reliable because “Sakai did not disclose any examples that bloomed a ‘fresh’ red color.” Appeal Br. 46. To support this position, Patent Owner provided declarations by Mr. DelDuca and Melvin C. Hunt, Ph.D. Dr. Hunt has a Ph.D. in Food Science, and testified that he has “performed numerous research projects in Meat Science and Muscle Biology including major emphasis on pigment chemistry, meat color, meat packaging, and factors effecting microbial soundness.” Hunt Decl. In 1 & 2. Both declarants worked in the field of the claimed invention and thus possess the requisite knowledge expected of one of ordinary skill in the art. Consequently, we conclude that the declarants are qualified to testify as to the matters in their declarations.

Dr. Hunt testified in his written declaration that the data in Table 1 of Sakai does not support the Examiner’s conclusion that Sakai’s deoxidizer was successful at recovering the meat’s red color (“bloom”) when opened. Hunt Dec. ¶ 11. Dr. Hunt identified discussed data in Sakai’s Table 1, such as the metamyoglobin levels, which he argues are inconsistent with Sakai’s statements that the meat color

recovered its color when a deoxidizer was used, but remained brownish when a deoxidizer was not used. *Id.* at 11–13. Based on these alleged inconsistencies and lack of correlations, Dr. Hunt concluded that “the results of Table 1 and descriptions of the same in Sakai are not credible.” *Id.* at 14.

We shall consider the credibility of Sakai’s teachings if Dr. Hunt’s statements about the inconsistencies in Sakai are given full weight. For example, Dr. Hunt identified an alleged lack of correlation between the amount of metmyoglobin and color of the meat. Hunt Decl. ¶ 13. The question is whether such inconsistencies, when assumed to be true, undermine Sakai’s teaching that deoxidizers would be useful to preserve meat in Weinke’s package.

To begin, we cannot ignore the fact, that despite Dr. Hunt’s doubt about Sakai’s data in Table 1 (V.1.B.i.–iv), Sakai still made strong statements about the benefit of a deoxidizer in promoting a red color upon opening the package:

According to the present invention, meat is closely-sealed together with deoxidizers, and it is, therefore, possible to make the meat have a freshly reddish tinge caused by oxymyoglobin quickly as soon as the packaging container is opened.

Page 2, lines 5–9.

The inventors of the present invention and others had conducted the study on a method for closely-sealing meat together with deoxidizers to prevent the meat from discoloration. As a result, it was discovered that the reduction of oxygen concentration in the [sealed] container to a specific value within a specific

interval of time [after sealing] made it possible to recreate the red color of meat as a fresh one after opening the container.

Page 2, lines 23–29.

The deoxidizer used in the present invention is required to be sufficient to reduce oxygen concentration in the sealed container to 5 % or less within 24 hours after closely-sealing the meat. A too-slow-acting deoxidizer is not preferable.

Page 3, lines 4–7.

Patent Owner did not establish that the statements reproduced above about the efficacy of a deoxidizer were all made in view of the results shown in Table 1. Even if the results in Table 1 are not credible, it has not been shown by Patent Owner that Sakai's statements were completely based on those results, and that a lack of correlation or inconsistencies in Table 1 would offset Sakai's statements that a red meat color would be recreated.

Furthermore, Sakai describes of a list of deoxidizers (at p. 2, 11. 9–17). Example 1 uses only one deoxidizer, "S-100 (product name of a deoxidizer available from Mitsubishi Gasukagaku)." Sakai at p. 5,1. 13–15. Dr. Hunt's criticism of Sakai's experiments does not undermine Sakai's statements since such experiments were performed with only one example of deoxidizer, S-100, whose composition does not appear to been identified by Dr. Hunt.

We acknowledge that the declarants identified specific apparent discrepancies in the data collected from the actual experiments performed by Sakai, but

despite the data, Sakai still concluded that the meat stored with a deoxidizer recovered its red color.

In sum, the evidence provided by Patent Owner does not establish by preponderance of evidence that the observed bloom would have been unexpected by one of ordinary skill in the art.

#### D. COMMERCIAL SUCCESS

Patent Owner contends that Pactiv's ActiveTech® meat packages, systems and processes of the same have been commercially successful. Appeal Br. 50. Patent Owner states: "Specifically, the biggest protein processors in the U.S. in partnership with the biggest retailers have relied on Pactiv's ActiveTech® meat packages, systems and processes of the same." *Id.*

In order to overcome a finding of obviousness by demonstrating commercial success, "[a] nexus between commercial success and the claimed features is required." *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000). In this case, Patent Owner has not provided evidence of a nexus between the claimed invention and Pactiv's ActiveTech® meat packages. Mr. DelDuca stated that the patent claims covered the commercial products, but did not provide sufficient evidence of such nor that the reason for the success was due to a feature recited in the claim, rather than unclaimed feature or marketing or business strategies. DelDuca Decl. ¶ 39. In addition to this, Patent Owner has not provided market data, sales figures, or any other information upon which it could be determined that the packages were commercial successful. See *Tec Air, Inc. v. Denso Mfg. Mich., Inc.*, 192 F.3d 1353, 1361 (Fed. Cir. 1999); *In re Huang*,

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100 F.3d 135, 140 (Fed. Cir. 1996); *see also* Answer 22.

#### SUMMARY

After considering the totality of the evidence before us, we conclude that the claimed subject matter of claims 1–6 and 8–28 would have been obvious to one of ordinary skill in the art based on the prior art cited by the Examiner for the reasons discussed above.

#### TIME PERIOD FOR RESPONSE

Requests for extensions of time in this *ex parte* reexamination proceeding are governed by 37 C.F.R. § 1.550(c). *See* 37 C.F.R. § 41.50(f).

AFFIRMED

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**APPENDIX E**  
**PATENT AND TRADEMARK OFFICE**  
**BEFORE THE PATENT**  
**TRIAL AND APPEAL BOARD**

Appeal 2014-001667  
Reexamination Control 90/011,597  
US 6,395,195  
Technology Center 3900

PACTIV, LLC

Patent Owner and Appellant.

June 30, 2014

Before LORA M. GREEN, RICHARD M.  
LEBOVITZ, and JEFFREY B. ROBERTSON, Ad-  
ministrative Patent Judges.

LEIBOVITZ, Administrative Patent Judge:

**DECISION ON APPEAL**

This is a decision on an appeal by Patent Owner Pactiv LLC, from the Patent Examiner's rejections of claims 1–9 and 11–25 in this *ex parte* reexamination proceeding. The Board's jurisdiction for this appeal is under 35 U.S.C. §§ 6(b), 134(b), and 306. We affirm.

**I. STATEMENT OF CASE**

This appeal involves US 6,395,195 (“the ’195 patent”) which issued May 28, 2002. The named inventors are Susan P. Evans, Vinod K. Luthra, and Gary R. DelDuca. A Request for *Ex Parte* Reexamination of the ’195 patent was submitted by a third-party requester on March 24, 2011.

Claims 1–25 are pending. Claims 1–9 and 11–25 stand rejected by the Examiner. Final Rej’n (dated November 19, 2012). The patentability of claim 10 has been confirmed. *Id.* Patent Owner appeals from the final rejection of claims 1–9 and 11–25. Claims 1–9 are original claims.

Claims 11–25 were added during the reexamination.

The real party in interest in this *ex parte* reexamination proceeding is the patent owner, Pactiv LLC. Appeal Br. 2 (dated May 14, 2013.) Patent Owner states that it is involved in litigation involved in the ’195 patent. That litigation is against Multisorb Technologies, Inc. in Civil Action No. 10-cv-07609 (*Pactiv Corporation v. Multisorb Technologies, Inc.*) in the United States District Court, Northern District of Illinois. U.S. Patent Nos. 6,183,790; 5,698,250; 5,948,457; 5,811,142; 6,231,905; 6,315,921 and 6,395,195 have been asserted in that litigation. *Id.* Reexaminations have been instituted on all seven asserted patents. *Id.*

An oral hearing was held April 30, 2014. A transcript of the hearing will be entered into the record in due course.

The technology in the ’195 patent involves packaging for meat. The ’195 patent teaches that “[p]ackaging systems which provide extremely low levels of oxygen are desirable because it is well

known that the fresh quality of meat can be preserved longer under anaerobic conditions than under aerobic conditions.” Col. 1, 11. 44–48. The ’195 patent describes prior art systems in which the atmosphere is evacuated of oxygen and optionally filled with gases other than oxygen to preserve the meat. Col. 1, 1. 31 to col. 2, 1. 28. One problem in storing meat is that it oxidizes and turns an undesirable brown color.

It is critically important to quickly remove the oxygen from meat to prevent it from turning brown. Especially important in preventing the irreversible change from red to brown is the rate at which oxygen is scavenged. If oxygen is removed quickly, the packaged meat turns a purple red color. This purple red color quickly “blooms” to a bright red color upon removal of the outer layer of packaging.

Col. 2, 11. 35–41.

The ’195 patent describes the invention as providing “an iron-based oxygen scavenging packet which exhibits an increased rate of oxygen absorption especially in the confines of a concomitant meat packaging system.” Col. 2, 1. 66 to col. 3, 1. 2. The ’195 patent claims an oxygen scavenging packet which comprises an iron based oxygen absorber and an oxygen uptake accelerator. The “oxygen uptake accelerator accelerates the rate of oxygen uptake of the iron-based absorber.” Col. 3, 11. 5–6. The accelerator can be water, acids, and other electron acceptors. Col. 3, 11. 1213.

The concept of using an oxygen scavenger and water in packaging systems to prevent the detri-

mental effect of oxygen exposure is acknowledged in the patent not to be new. Col. 2, 11. 42–45. The '195 patent writes in the background section: “Several oxygen scavengers utilize the oxidation of particulate iron as a method to absorb oxygen. A small amount of water is essential for this reaction..” Col. 2, 11. 44–47. The claims are directed to an oxygen absorber comprising iron and a liquid oxygen uptake accelerator comprising water, both which were acknowledged in the patent’s background section to be known ways of reducing oxygen in meat packages.

#### Claims

Independent claim 1 and 15 are reproduced below. All the claims recite that the “the oxygen absorber is capable of reducing the oxygen content of a predetermined volume” (referred to here as the “capable of reducing oxygen content” limitation) and require the “oxygen uptake accelerator being present in said packet in an amount between about 0.2 and 1.4 mL per 2.5 grams of iron.” The underlining in claim 15 indicates that it is a newly added claim that was not part of the originally issued claims.

1. A method of reducing the oxygen concentration in an enclosed space comprising:

a. placing an oxygen scavenging packet within said enclosed space, said oxygen scavenging packet comprising:

i. an oxygen permeable material formed in a closed packet; and

ii. an oxygen absorber within said closed packet, said oxygen absorber comprising iron; and

b. introducing a liquid oxygen uptake accelerator comprising water directly onto said oxygen absorber, wherein said liquid oxygen uptake accelerator is introduced in an amount relative to the amount of said oxygen absorber, such that when the oxygen uptake accelerator and oxygen absorber are brought into contact, the oxygen absorber is capable of reducing the oxygen content of a predetermined volume containing about 2 vol % oxygen to less than 0.5 vol % oxygen at a temperature of about 34° F. in more than 90 minutes after said oxygen uptake accelerator and oxygen absorber are brought into contact, said oxygen uptake accelerator being present in said packet in an amount between about 0.2 and 1.4 mL per 2.5 grams of iron.

15. A method of reducing the oxygen concentration in an enclosed space comprising:

placing a retail cut of raw meat within said enclosed space;

placing an oxygen scavenging packet within said

enclosed space, said oxygen scavenging packet comprising (a) an oxygen permeable material formed into a closed packet; and (b) an oxygen absorber within said closed packet, said oxygen absorber comprising iron; and

introducing a liquid oxygen uptake accelerator

comprising water directly onto said oxygen absorber, said liquid oxygen uptake accelerator being introduced in an amount relative to the amount of said oxygen absorber, such that when

said liquid oxygen uptake accelerator and oxygen absorber are brought into contact, the oxygen absorber is capable of reducing the oxygen contact of a predetermined volume containing about 2 vol % oxygen to less than 0.5 vol % oxygen at a temperature of about 34 ° F. in no more than 90 minutes after said liquid oxygen uptake accelerator being present in said oxygen scavenging packet in an amount between about 0.2 and 1.4 mL per 2.5 grams of iron.

#### Rejections

The claims stand rejected under 19 grounds of rejection which are listed in the Appeal Brief on pages 7–8. For convenience, we will refer to the grounds of rejection discussed below by the numbering set forth in the Appeal Brief.

#### II. SNQ ISSUES

Patent Owner contends that 17 of the 19 rejections set forth by the Examiner were not part of the original SNQs of patentability and under *Belkin Ina Inc. v. Kappos*, 696 F.3d 1379 (Fed. Cir. 2012) are prohibited. Appeal Br. 8–9. According to Patent Owner, *Belkin* affirmed the Board’s decision not to consider any references that the Director had decided did not form a substantial new question (SNQ) of patentability. *Id.* Although *Belkin* involved an *inter partes* reexamination, Patent Owner contends that it is pertinent to this *ex parte* reexamination because the statutes are comparable. *Id.* at 9–10. Based on *Belkin*, Patent Owner contends that the Board should not reach the rejections in this appeal because they involve references and combination of references that were not part of the original SNQ of patentability. *Id.* at 10–11. Patent Owner argues “to

the extent that any amended, new or substituted claim overcomes the SNQ of patentability, further rejection of those claims based on patentability exceeds the statutory authority granted to the PTO under the reexamination statute.” *Id.* at 12. Patent Owner contends the rejections under the initial SNQ were overcome, and that the case should be remanded to the Examiner to allow the claims. *Id.* at 14.

*Belkin* involved an *inter partes* reexamination proceeding and therefore is not applicable to this *ex parte* reexamination. We decline to extend a holding in decision on an appeal in a specific *inter partes* reexamination proceeding to an *ex parte* reexamination proceeding, which was invoked under a different statutory and regulatory regime. *See* 35 U.S.C. § 303 (2002) and 37 C.F.R. § 1.510 for *Ex Parte* Reexamination; 35 U.S.C. § 312 (2011) and 37 C.F.R. § 1.913 (2002) for *Inter Partes* Reexamination.

Nonetheless, an SNQ was not found in *Belkin*. The court explicitly said:

Indeed, the PTO may make any new rejection, as long as that rejection also meets the substantial new question of patentability requirement. *See* 35 U.S.C. § 303(a) (“On his own initiative, and any time, the Director may determine whether a substantial new question of patentability is raised by patents and publications discovered by him . . .”). Thus, the scope of reexamination may encompass those issues that raise a substantial new question of patentability, whether proposed by the requester or the Director, but, unless it is raised by the Director on his own initiative, it only includes issues of patentability raised in the request under § 311 that

the Director has determined raise such an issue.”

Patent Owner contends that the rejections based on Komatsu and Yoshikawa<sup>1</sup> are improper because they do not raise an SNQ. Appeal Br. 33 and 37. In the initial request for reexamination, Requester stated that Komatsu<sup>2</sup> and Yoshikawa were of record during prosecution of the '195 patent, but were not applied by the Examiner. Request 5 and 9.

“The existence of a substantial new question of patentability is not precluded by the fact that a patent or printed publication was previously cited by or to the Office or considered by the Office.” 35 U.S.C. § 303(a). For example, it is proper to order a reexamination when “old art is being presented/viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request.” M.P.E.P. § 2642(II.A).

A declaration by George McKedy accompanied the Request. Mr. McKedy is employed by Multisorb Technologies, Inc., and carried out experiments based on Komatsu to show that the “capable of reducing oxygen limitation” in the claims was met by Komatsu. Request 6. The declaration thus casts a new light on Komatsu. Accordingly, Komatsu was properly considered by the Examiner in this reexamination.

Patent Owner contends that a declaration does not constitute prior art, and, therefore, is not properly cited in an SNQ. However, the declaration is not

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<sup>1</sup> Komatsu et al., US 4,166,807 issued September 4, 1979.

<sup>2</sup> Yoshikawa et al., US 4,127,503 issued November 28, 1978.

being cited as prior art, but rather to show a fact that existed on the filing date of the '195 patent, i.e., that Komatsu inherently meets the claimed "capable of reducing oxygen limitation" limitation. Yoshikawa describes experiments which are similar to those in Komatsu (Komatsu at col. 1, 11. 63–65) and thus the McKedy declarations casts a new light on it, as well.

### III. HAMON REJECTION

Claims 1, 3, 5, 7, 9, and 11–14 stand rejected under 35 U.S.C. § 102(b) as anticipated by Hamon.<sup>3</sup> Ground 3.

The Examiner found Hamon described all the elements of the claimed method of reducing oxygen in an enclosed space, including showing "examples utilizing the activation agent (or accelerator as stated in the instant claims) and iron in amounts as claimed in the independent claims." Final Rej'n 8–9. The Examiner concluded that "[a]s such, Hamon would inherently achieve the oxygen absorption rates claims." *Id.* at 9.

#### Legal principles

Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product.

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<sup>3</sup> Hamon, et al., EP 0468880 published January 1, 1992.

Whether the rejection is based on “inherency” under 35 U.S.C. § 102, on “prima facie obviousness” under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO’s inability to manufacture products or to obtain and compare prior art products.

*In re Best*, 562 F.2d 1252, 1255 (CCPA 1977) (footnote omitted).

Once “the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990) (citation omitted).

#### Findings of Fact

H1. Hamon identifies a general problem encountered with food products sensitive to oxygen:

Many products will degrade in contact with oxygen in the air and must be kept free of oxygen. In particular, food products are often packaged under vacuum or under an inert atmosphere, because the presence of oxygen [causes them] physical and chemical damage and biological.

Hamon at p. 1, 11. 4–6.

H2. Hamon give specific examples of very sensitive products:

When one is for very sensitive products to oxygen, especially fats or wet products such as mayonnaise, fruit, power solutions, or even glue, this type of absorber is inadequate. Indeed, sensitive products in the development of microorganisms must quickly

be in a low-oxygen atmosphere. Absorbers must have a rate of absorption oxygen higher, and in this case a too long residence time in the air can affect their subsequent absorption and thus the system reliability.

Hamon at p. 1, 11. 39–44.

H3. Haman states that the “present invention relates to a packaging system for absorbing oxygen and/or [ ] carbon dioxide, allowing storage and use in optimal conditions.” Hamon at p. 1, 11. 1–3.

H4. Hamon describes a composition for absorbing oxygen that comprises iron powder, “a support material, water retaining, [such] as silica gel,” an electrolyte (NaCl), and activated carbon. Hamon at p. 1, 11. 22–25.

H5. The support material “needs to retain water.” Hamon at p. 2, 1. 48. In addition to silica gel, Hamon discloses the support can be foams of clay and kaolinite. *Id.* at 11. 46–48.

H6. Hamon describes placing the elements in a bag permeable to oxygen. Hamon at p. 1, 1. 28.

H7. The iron is maintained in a dry atmosphere until use, when “hydration of the support [comprising iron] are obtained by introducing electrolyte in the form of a brine at 17%.” Hamon at p. 2, 11. 51–52.

H8. Hamon describes an example in which a system comprising 2.2 grams of iron powder [oxygen absorber] in one compartment and 0.8 ml brine [oxygen uptake accelerator] in a second compartment is used, or 0.8 ml brine/2.2 gram or 0.9 ml water/2.5 gram iron, which falls within the claimed “an amount [of oxygen uptake accelerator] between about 0.2 and

1.4 mL per 2.5 grams of iron.” Hamon at p. 3; *see also* Answer 10.

#### Discussion

Patent Owner contends that Hamon does not anticipate the claims.

The claims require iron and an oxygen accelerator. The accelerator can be water. ’195 patent, Abstract. Patent Owner argues that water is retained by the support material described in Hamon. Appeal Br. 23. Specifically, Patent Owner contends: “Because Hamon’s absorber has very little free water, it does not function like the presently claimed liquid oxygen uptake accelerator (water) in the independent claims.” *Id.*

To support this position, Patent Owner relied upon declarations by Gary R. DelDuca, a co-inventor of the ’195 patent. Mr. DelDuca is Technical Manager and/or Technical Sales Manager for the Patent Owner in the area of modified atmosphere packaging (MAP) for meats. First DelDuca Decl. 112. His responsibilities have included designing, developing, and implementing such modified atmosphere packaging for meat and processes using the same. *Id.*

Mr. DelDuca testified that, when the water is retained in the support material in Hamon, “its consistency is like toothpaste.” Second DelDuca Decl ¶ 6. Mr. DelDuca testified that the claimed accelerator — water — “accelerates the rate of oxygen uptake of the oxygen absorber.” *M.* Mr. DelDuca concludes that there “would be no expectation to one skilled in the art that the Hamon absorber with very little free water would work or function like the claimed liquid oxygen uptake accelerator of the independent claims.” *Id.*

That argument is not persuasive. It is true that Hamon describes its support material as “need[ing] to retain water.” H5. However, one of the support materials described in Hamon is silica (H4), which is also used by the ’195 patent. ’195 patent at col. 3 at 11. 61–64; col. 8 at 11. 39–52. As the materials are the same in both the ’195 patent and Hamon, the Examiner had reasonable basis to believe that they would be expected to function the same. *Best*, 562 F.2d at 1255; *Spada*, 911 F.2d at 708. Thus, even if the materials were employed for different purposes as asserted by Mr. DelDuca (Second DelDuca Decl. ¶ 8), this does not alter the fact that the materials are the same and thus would be reasonably expected to behave in the same way.

Furthermore, silica is characterized in the ’195 patent as follows: “a water attracting agent such as silica gel can be used to attract water and at times to supply water in the packet initially.” ’195 patent at col. 2,11. 46–49. Thus, even though silica attracts water, the evidence of record supports the Examiner’s position that water associated with silica gel can serve as an oxygen uptake accelerator. Mr. DelDuca did not address this fact. Mr. DelDuca did not provide an adequate factual basis for concluding that the water in the support material as described by Hamon would not be capable of serving as an oxygen uptake accelerator.

“introducing a liquid oxygen uptake accelerator comprising water directly onto said oxygen absorber”

Claim 1 also recites “b. introducing a liquid oxygen uptake accelerator comprising water directly onto said oxygen absorber.” Patent Owner argues that Hamon does not disclose this step. Appeal Br. 25. This position is not supported by the evidence.

Rather, we agree with the Examiner's position that Harmon discloses this limitation. (Final Rej. 9.) Specifically, as articulated by the Examiner, Hamon describes two compartments: one with the iron reducing agent and the other with the support material comprising the electrolyte. Hamon at p. 2. The compartments are determined by a weld, which is ruptured to mix the support material with electrolyte with the iron. *Id.* Thus, the mixing of the support material with electrolyte and the iron would serve as "introducing a liquid oxygen uptake accelerator comprising water directly onto said oxygen absorber."

"capable of reducing oxygen content" limitation

Patent Owner also argues "there would be no expectation of success to one skilled in the art using Hamon's oxygen scavenger in the applications of retail cuts of raw meat disclosed with the claimed oxygen absorber of the present application." Appeal Br. 26. That argument is only applicable to claims, such as claim 15, which recite "raw meat." For example, claims 1 and 5 do not require the oxygen absorber to perform in an environment with raw meat.

With respect to the "capable of reducing oxygen content" limitation, which is said prevent the formation of metmyoglobin in meat, Hamon describes iron and water (saline) in amounts that meet the limitations of claims 1, 5, and 15 (H8), giving the Examiner reasonable basis to believe that they would possess the recited properties, e.g., "capable of reducing the oxygen content of a predetermined volume containing about 2 vol % oxygen to less than 0.5 vol % oxygen at a temperature of about 34° F. in no more than 90 minutes after said oxygen uptake accelerator and oxygen absorber are brought into contact." *Best*, 562 F.2d at 1255; *Spada*, 911 F.2d at 708. Paragraph

13 of Mr. DelDuca's first declaration describes problems with achieving bloom but does not provide a factual basis for the contention that iron and water in the same amounts as claimed would not achieve this result.

#### Summary

In sum, Mr. DelDuca's declarations are insufficient to rebut the Examiner's findings that the subject matter of claims 1, 3, 5, 7, 9, and 11–14 are anticipated by Hamon.

#### IV. KOMATSU

Claims 5, 7, 9, 13, and 14 stand rejected under 35 U.S.C. § 102(b) as anticipated by Komatsu as evidenced by the declaration by George McKedy. Ground 1.

Independent claim 5 is drawn to scavenging packet comprising: "a. an oxygen permeable material formed into a closed packet for holding an oxygen absorber; b. an oxygen absorber comprising iron within the packet of (a); and c. a liquid oxygen uptake accelerator [comprising water]." The absorber and accelerator are recited to be in the following amount: "said oxygen uptake accelerator being present in said packet in an amount

between about 0.2 and 1.4 mL per 2.5 grams of iron." The claim is a product claim but recites that that the packet has the following capability: "when the liquid accelerator and oxygen absorber are brought into contact, the oxygen absorber is capable of reducing the oxygen content of a predetermined volume containing about 2 vol % oxygen to less than 0.5 vol % oxygen at a temperature of about 34° F. in

no more than 90 minutes after said accelerator and oxygen absorber are brought into contact.”

The Examiner contends that Komatsu anticipates claim 5, and

claims 7, 9, 13, and 14 which depend from it. Final Rejn. 6–7. The following findings of fact from Komatsu are pertinent to this determination.

#### Findings of Fact

K1. “In order to preserve foodstuffs, such as vegetables, fish, shellfish, meats, processed foodstuffs, such as potato chips, cakes, peanuts, etc., and so on, it is necessary to prevent the foodstuffs from getting moldy and from putrefying.” Komatsu, col. 1,11. 7–11.

K2. Oxygen is said to cause the putrefaction and change in foodstuff quality. Komatsu at col. 1, 11. 21–25. The inventors describe their efforts to find an oxygen absorbent that is usable for preventing putrefaction and change in quality of food stuffs. *Id.* at col. 1, 11. 55–62.

K3. The inventors disclose they “found that an oxygen absorbent comprising at least one metal halide and iron containing 0.05 to 5% by weight of sulfur on the basis of the weight of iron does not involve such risk from hydrogen evolution, but does have sufficient oxygen-absorbing property.” Komatsu, col. 2,11. 14–21.

K4. “It is critical that iron constituting the oxygen absorbent contain 0.05 to 5% by weight, preferably 0.1 to 1 % by weight of sulfur on the basis of the weight of iron. A compound comprising a metal halide and iron containing less than 0.05% by weight of

sulfur does not have the effect of suppressing evolution of hydrogen.” Komatsu, col. 2, 11. 29–34.

K5. “The oxygen-absorbing reaction by the oxygen absorbent of this invention utilizes reactions for forming hydroxides of iron. Therefore, it is essential that the oxygen absorbent contain water or a compound having water of hydration, or the system in which the oxygen absorbent is used contain steam. When the oxygen absorbent contains water, the water may be free water or water of hydration.” Komatsu, col. 3, 11. 26–33.

K6. Requester cited the examples in Table 6 of Komatsu for describing water in an amount that meets the claim limitation of an uptake accelerator “being present in said packet in an amount between about 0.2 and 1.4 mL per 2.5 grains of iron.”

Example 3 of Komatsu teaches in Run No. 1 described in Table 6 a composition consisting of 2 grams of iron powder, 2 grams of NaCl and .4 grams (approximately .4 mL) of water used to absorb oxygen. Runs No.2 and 3 of the same example use the same ratio of water to iron (.4 mL of water to 2 grams of iron) but vary the oxygen absorbing composition by adding additional fillers. Thus, in all three of these examples, Komatsu teaches a ratio of .5 mL of water per 2.5 grams of iron, which is within the range of from .2 mL to 1.4 mL of water per 2.5 grams of iron, claimed in the '195 patent.

Request for Reexamination 6.

K7. “A filler may be added to the oxygen absorbent in order to increase the oxygen absorption rate and the amount of oxygen absorbed and to make

handling of the oxygen absorbent easy.” Komatsu at col. 3, 11. 6063. The fillers include active carbon, active clay, colloidal silica, silica alumina gel, and anhydrous silica. *Id.* at col. 3, 11. 63 to col. 4, 11. 3.

K8. Example 1 tests the oxygen absorbing properties of a “variety of oxygen absorbent” which “were prepared by mixing 1 gr of Fe powder containing 0.2% of S and each of the metal halides shown in Table 1.” Komatsu at col. 5, 11. 37–40.

K9. The iron is placed in a perforated polyethylene film-laminated bag. Komatsu at col. 5, 11. 41–42.

#### Discussion

Komatsu describes a similar problem to the one described in the '195 patent of preserving the quality of food, including meats. K1–K2. Oxygen is said by Komatsu to be the cause of the change in food quality during storage. K2. The '195 patent also identifies oxygen as the culprit in meat spoilage. '195 patent at col. 1, 11. 23–49. Komatsu and the '195 patent take the same approach to reduce the oxygen present in the package which contains the food. Komatsu utilizes iron, characterizing it as an oxygen absorbent. K3–K4. Claim 5 also uses iron as an oxygen absorber. Komatsu states that water is essential to promote the oxygen absorbing reaction and uses it in its examples. K5–K6. Claim 5 requires a liquid oxygen uptake accelerator comprising water. Komatsu thus teaches both elements recited in claim 5 to remove oxygen from the package environment in which the food is stored.

The amounts of each of these elements are recited in claim 5 to be as follows: “said oxygen uptake accelerator [water] being present in said packet in an

amount between about 0.2 and 1.4 mL per 2.5 grams of iron.” Requester provided evidence that these limitations are met by the examples in Table 6 of Komatsu. K6; Final Rej’n 6.

Komatsu also describes the iron and water as being present in a perforated polyethylene film-laminated bag (K9), meeting limitation a. of claim 5 of “an oxygen permeable material formed into a closed packet for holding an oxygen absorber.” Thus, all three structural limitations a through c of claim 5 are described by Komatsu.

Claim 5 also has a functional limitation that “when the liquid accelerator and oxygen absorber are brought into contact, the oxygen absorber is capable of reducing the oxygen content of a predetermined volume containing about 2 vol % oxygen to less than 0.5 vol % oxygen at a temperature of about 34° F. in no more than 90 minutes after said accelerator and oxygen absorber are brought into contact.” Komatsu does not expressly describe that its oxygen absorbent system possesses this property. However, Komatsu describes all three of the recited structural elements in claim 5, including the iron and water in the claimed ratio. The ’195 patent does not describe any special way in which the reduction of oxygen was achieved other than by varying the ratio of the liquid accelerator (water) and oxygen absorbent (iron). ’195 patent at e.g., col. 7, 1. 16 to col. 8, 1. 45; col. 11. It was reasonable, therefore, for the Examiner to have determined that the elements described in Komatsu, which are identical to those which are claimed, also possess the claimed functional property. Final Rej’n. 6.

In reaching the anticipation determination, the Examiner relied on the McKedy declaration. Final’n

Rej. 6–7. Mr. McKedy testified in his declaration that he “conducted an experiment in accordance with Example 3, Run 2 of Komatsu, to determine the efficacy of that composition in a refrigerated environment.” McKedy Decl. ¶ 7. Mr. McKedy stated that he “duplicated the Example described by Komatsu as closely as possible, to determine the results at refrigerated temperatures, and with an initial oxygen content of approximately 2.0%.” *Id.* at ¶ 9. However, as pointed out by Patent Owner, Mr. McKedy did not include sulfur in its example which is said by Komatsu to be “critical” in its formulation. K3–K4. Mr. McKedy did not also use the same perforated polyethylene film-laminated bag described in Komatsu. K9. Because of these differences and others identified by Patent Owner between Komatsu’s example and what Mr. McKedy did in his experiments (Appeal Br. 27–32), we give this declaration little weight. Nonetheless, the results described in the declaration are consistent with the Examiner’s determination that a composition having the amounts of water and iron described in Komatsu would meet the functional limitation of claim 5. Moreover, since Komatsu meets all the structural elements of claim 5, it is unnecessary to rely on the McKedy declaration to have established a reasonable basis upon which to believe that Komatsu’s composition meets the structural limitations of claim 5.

In an attempt to rebut this reasonable presumption, Patent Owner argues that “Komatsu teaches in Example 3 that after 5 hours, the oxygen concentration varies from 0.5 to 20.3% depending on the run.” Appeal Br. 33. The results of Example 3 are summarized in Table 6. Table 6 shows that different formulations, which vary in the filler and water hydration compound, achieved different reductions in the oxy-

gen concentration present in the container. The Examiner relied on Run 2 (Answer 11–12), which achieved the greatest reduction in oxygen, not the other run numbers listed in Table 6. Thus, the fact that there was variation in the different runs, which contain different forms and amounts of the water of hydration compound, does not contradict the results of Run 2.

Patent Owner did not provide sufficient evidence to rebut the determination that Komatsu’s teaching of an oxygen absorber comprising iron and a liquid oxygen uptake accelerator in the claimed amounts would satisfy the “capable of reducing oxygen” limitation of claim 5.

When the evidence it considered in its entirety, we conclude that a preponderance of the evidence supports the determination that Komatsu anticipates the subject matter of claim 5, and dependent claims 7, 9, 13, and 14 which were not separately argued.

#### V. YOSHIKAWA

Claims 5, 9, 13, and 14 stand rejected under 35 U.S.C. § 102(b) as anticipated by Yoshikawa as evidenced by the McKedy Declaration. Ground 2. The following findings of fact are pertinent to this determination:

Y1. “In order to preserve foodstuffs, such as vegetables, fish, shellfish, meats, processed foodstuffs, such as potato chips, cakes, peanuts, etc., and so on, it is necessary to prevent the foodstuffs from getting moldy and from putrefying.” Yoshikawa at col. 1, 11. 8–12.

Y2. “[I]t was found that an oxygen absorbent powder in which a small amount of the metal halide is coated on the surface of metal powder and which has a minor water content rapidly absorbs oxygen in a sealed container, when it coexists with foodstuffs.” Yoshikawa at col. 2, 11. 15–19.

Y3. A group of metal powders are described in Yoshikawa. Yoshikawa at col. 3, 11. 14–17. Iron is described as “preferred.” *Id.* at col. 3, 16–17. Iron is used in the oxygen absorbent powder in the examples. *Id.* at cols. 5–12.

Y4. Yoshikawa describes “an oxygen absorbent comprising a metal powder coated with a definite amount of a metal halide and having a minor amount of water.” Yoshikawa at col. 1, 11. 5–7.

Y5. In Comparative Example 2 (at col. 6, 11. 31–33), Yoshikawa describes mixing 0.2 ml water with 1 gram iron which is equivalent to 0.5 ml water to 2.5 grams iron (multiply each side by 2.5), which falls within the claimed “amount between about 0.2 and 1.4 mL per 2.5 grams of iron.” *See Request for Reexamination 11.*

#### Discussion

The Examiner found that “Yoshikawa ’503 teaches substantially the same invention as that found in Komatsu (and is, in fact, referred to in Komatsu) so the evidence provided by the McKedy declaration is pertinent to Yoshikawa ’503 as well.” Final Rej’n 8. Thus, the Examiner found that Yoshikawa ’503 inherently meets the functional limitations regarding absorbent capacity set forth in the independent claim 5 of the ’195 patent.” Final Rej’n 8.

Patent Owner makes the same unavailing arguments as they did for the Komatsu rejection, particularly pointing out alleged deficiencies in the experiments performed by Mr. McKedy. Appeal Br. 35–37. However, as indicated above, one of the examples of Yoshikawa falls within the scope of claim 5 (Y5), giving the Examiner reasonable basis upon which to believe that the “capable of reducing oxygen” limitation was met. *Best*, 562 F.2d at 1255; *Spada*, 911 F.2d at 708.

Patent Owner contends that the amount of oxygen absorbed in the example was poor. Appeal Br. 36. Mr. DelDuca testified:

Typically, the order of magnitude needed for absorption of oxygen in connection with retail cuts of meats is in hundred(s) of milliliters of oxygen. One skilled in the art would use not such an oxygen absorbent of Yoshikawa '503 with retail cuts of meat.

First DelDuca Decl. 1126.

Claim 5 is a product claim and is not limited to use with retail meats. This argument is therefore unpersuasive.

When the evidence is considered in its entirety, we conclude that a preponderance of the evidence supports the determination that Yoshikawa anticipated the subject matter of claims 5, and dependent claims 9, 13, and 14.

#### VI. REJECTIONS BASED ON KOMATSU, YOSHIKAWA, AND HAMON

Claims 1, 3, 11, and 12 stand rejected as obvious under 35 U.S.C. § 103(a) as obvious in view Komatsu with Hamon (Ground 4) and Yoshikawa and Hamon

(Ground 5). Patent Owner challenges the rejections on the same basis as they did for the anticipation rejections based on *Komatsu* and *Yoshikawa*. Appeal Br. 39–41. As we did not find these arguments persuasive, we conclude that a preponderance of the evidence establishes that claims 1, 3, 11, and 12 are prima facie obvious for the reasons set forth by the Examiner. Final Rej'n 10–12.

#### VII. SAKAI AND HAMON REJECTION

Claims 5, 7, 9 and 13–21 stand rejected under 35 U.S.C. § 103(a) as obvious in view of *Sakai*<sup>4</sup> and *Hamon*. Ground 14.

Independent claim 5 is a product claim and was described above. Independent claim 15 is a method claim for “reducing the oxygen concentration in an enclosed space comprising” a step of placing a retail cut of raw meat in an enclosed space and then placing an oxygen absorber comprising iron and a liquid oxygen uptake accelerator in the space. The latter two components are in the same ratio as in claim 5 and have the same capability of reducing oxygen limitation as all the other claims.

Independent claim 19 is similar to claim 5 but additionally recites a “retail raw cut of raw meat.”

The Examiner found that *Sakai* teaches a method of preserving raw meat by sealing the meat in a gas impermeable container with an oxygen scavenger capable of reducing the oxygen concentration within the container to 5% or less within 24 hours and preferably to 0.1 % or less in 12 hours. Final Rej'n 17. The Examiner found that the oxygen scavenger uti-

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<sup>4</sup> *Sakai*, JP 58–158129 issued Sept. 20, 1983.

lized by Sakai is iron, the same one recited in claim 5 and 15. Sakai at p. 3, 11. 9–11. The Examiner further relied on Hamon, as described above, for its teaching of an oxygen absorber (iron) and liquid oxygen uptake accelerator comprising water. Final Rej'n 17. The Examiner determined that it would have been obvious one of ordinary skill in the art “to utilize the containment system and activator, as well as the ratios of constituents as taught in Hamon with the oxygen scavenger of Sakai because it would provide enhanced absorption of oxygen thereby preventing the onslaught of oxidative deterioration of the meat.” *Id.* at 18.

As to the “capable of reducing oxygen content” limitation, the Examiner found “Hamon clearly teaches optimizing the activity of this same oxygen scavenger thus it is held that the enhanced optimization of the scavenger of Sakai with the activator of Hamon would intrinsically provide the activity levels instantly claimed.” *Id.*

Patent Owner argues that the combination of Sakai and Hamon is improper.

Sakai is directed to preserving meat and identifies meat such as “chicken, pork, beef, etc.” and fish such as “tuna, bonito, etc.” Page 3 of Sakai; DelDuca First Decl. 36. Hamon, on the other hand, specifically identifies the following products to be used with its packaging system: dried fish, pastries, mayonnaise, fruit, power solutions and glue. *Id.* None of these products has anything to do with Sakai. *Id.*

Appeal Br. 51.

That argument is not persuasive. Hamon generally teaches that food products are sensitive to oxygen, and makes specific mention of certain food products, including “fats.” H1–H2. Even if meat is not specifically mentioned, there is no indication that it is excluded from Hamon. Rather, Hamon’s teachings are said to be generally applicable to foods which are sensitive to oxygen. H1–H3. Sakai specifically teaches that red meat is sensitive to oxygen and that depleting oxygen from the environment in which the meat is stored preserves the meat’s red color. Sakai at p. 1, 1. 30 to p. 2, 1. 30. Consequently, one of ordinary skill in the art would have found Hamon’s solution pertinent to Sakai.

Patent Owner also argues that the problem of obtaining consistent blooming is unique to raw meat and requires a rapid reduction in oxygen. Appeal Br. 51. All that the claims require is that the “the oxygen absorber is capable of reducing the oxygen content of a predetermined volume containing about 2 vol % oxygen to less than 0.5 vol % oxygen at a temperature of about 34° F. in no more than 90 minutes after said liquid oxygen uptake accelerator and oxygen absorber are brought into contact” and that the iron and accelerator are in a specific ratio. It has already been established that Hamon meets the ratio limitation, making it reasonable to expect that Hamon would meet the “capable of reducing the oxygen content” limitation, as well. Patent Owner has not provided adequate evidence to the contrary.

Patent Owner attempts to distinguish the claimed subject matter over Sakai by identifying deficiencies in it with respect to whether Sakai accomplished meat bloom. Appeal Br. 49. However, the rejection relies on the combination of iron — taught by

both Sakai and Hamon — with an oxygen accelerator in the ratio taught by Hamon. *Supra.* at 23. Hamon’s teachings have already been found to meet the claimed “capable of reducing oxygen content” limitation and therefore would reasonably have been believed to achieve meat bloom.

In sum, we find that a preponderance of the evidence supports the Examiner’s determination that independent claims 5, 15, and 19, and dependent claims 7, 9, 13, 14, and 16–21 are prima facie obvious in view of Sakai and Hamon.

#### VIII. REJECTIONS BASED WEINKE, KOMATSU, YOSHIKAWA, AND MCKEDY DECLARATION

Claims 19–25 stand rejected under 35 U.S.C. § 103(a) as obvious in view of Weinke,<sup>5</sup> Komatsu, and the McKedy declaration, and Weinke, Yoshikawa, and the McKedy declaration. Grounds 17 and 18.

Independent claims 19 and 22 are drawn to a meat packaging system with the same limitations as claim 5, but also comprising “a retail raw cut of raw meat.” Claim 24 is drawn to method of manufacturing a modified atmosphere package that involves placing a retail cut of raw meat in a package and supplying an oxygen scavenger and liquid uptake accelerator as recited in the other independent claims in this appeal.

Komatsu and Yoshikawa are cited by the Examiner for their teaching of an oxygen absorber comprising iron and a liquid oxygen uptake accelerator as described above. Final Rej’n 19. Komatsu and Yoshikawa also describe problems with preserving

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<sup>5</sup> Weinke, US 3,574,642 issued April 13, 1971.

foods, including meat. K1 and Y1. Weinke is said by the Examiner to teach “a package for containing raw meats under anaerobic conditions during storage to prevent oxidative deterioration of the meat prior to display for consumer purchase.” Final Rej’n 19. The Examiner concluded that it would have been obvious to one of ordinary skill in the art to have used the oxygen scavenger of Komatsu and Yoshikawa in Weinke’s packaging system “because it would enhance the protection provided by the inert gas flushing of Weinke by absorbing any residual oxygen present with the enhanced action of the scavenger preventing the onslaught of oxidative deterioration of the meat.” *Id.* at 20 and 21.

The Examiner provided a logical reason for combining the cited publications. Final Rej’n. 19–21. Patent Owner did not identify a deficiency in this reasoning, but rather argued deficiencies in Weinke Appeal Br. 5458. Those arguments are unpersuasive because such alleged deficiencies are made up for by Komatsu and Yoshikawa. The rejection is based on the combination of publications, not each individually as argued by Patent Owner.

For the reasons given by the Examiner, we conclude that a preponderance of the evidence establishes that claims 19–25 are prima facie obvious in view of Weinke, Komatsu, and the McKedy declaration, and Weinke, Yoshikawa, and the McKedy declaration.

#### IX. REJECTIONS BASED ON SAKAI, HAMON, AND WEINKE

Claims 22–25 stand rejected under 35 U.S.C. § 103(a) as obvious over Sakai, Hamon and Weinke. Ground 19.

Claims 22 and 24 require first and second packages. The Examiner relied upon Weinke to teach the specifically claimed packaging system and Sakai and Hamon for their teaching of the oxygen scavenger and accelerator. Final Rej'n 21. Patent Owner's arguments are the same as those based Hamon and Sakai which have already been found unpersuasive. Appeal 56. Consequently, we conclude that a preponderance of the evidence establishes that claims 22–25 would have been prima facie obvious in view of Sakai, Hamon, and Weinke

#### X. GROUNDS 6–13, 15, AND 16

Claims 2, 4, 6, and 8 stand rejected less than 35 U.S.C. § 103 as obvious under Grounds 6–13, 15, and 16. Patent Owner argued that the secondary references cited in these rejections do not address the deficiencies of the already discussed Haman, Komatsu, and Yoshikawa. Appeal Br. 58. We have already found these arguments unpersuasive. Accordingly, we conclude that a preponderance of the evidence establishes that 2, 4, 6, and 8 would have been prima facie obvious to one of ordinary skill in the art for the reason set forth by the Examiner.

#### XI. OBJECTIVE EVIDENCE OF NONOBVIOUSNESS

Factual considerations that underlie the obviousness inquiry include the scope and content of the prior art, the differences between the prior art and the claimed invention, the level of ordinary skill in the art, and any relevant secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Relevant secondary considerations include commercial success, long-felt but unsolved needs, failure of others, and unexpected results. *KSR Ina Co. v. Tele-*

*flex Inc.*, 550 U.S. 398, 406 (2007); *In re Soni*, 54 F.3d 746 (Fed. Cir. 1995). Secondary considerations are “not just a cumulative or confirmatory part of the obviousness calculus but constitute independent evidence of nonobviousness . . . [and] enable[] the court to avert the trap of hindsight.” *Leo Pharm. Prods., Ltd. v. Rea*, 726 F.3d 1346, 1358 (Fed. Cir. 2013) (internal quotation marks and citations omitted). “This achieved because the same ratio of iron and water recited in the claims are described by Yoshikawa and Komatsu. Based on the evidence in the ’195 patent, the skilled worker would have understood that these values are responsible for the “capable of reducing oxygen” limitation and the consistent blooming which is said to be achieved.

The ’195 patent also discusses other prior art methods that allow meat to bloom. ’195 patent at col. 1, 1. 60 to col. 2, 1. 11. In view of this disclosure and the evidence discussed above, it cannot be concluded that the inventors solved a long felt need to achieve consistent blooming of meat.

## B. COPYING

Patent Owner contends “[t]here is at least one company (Multisorb Technologies, Inc.) that is making, using, selling and offering for sale products that use the systems, products and/or methods described in the present invention. See Exhibit 3.” Appeal Br. 45. Patent Owner states that it “believes that Multisorb Technologies, Inc. has copied its inventive concepts and Multisorb Technologies, Inc. has not received permission to use the inventive concepts of the present invention.” *Id.*

Patent Owner has not provided sufficient evidence to establish copying. Exhibit 3 is a complaint

by Patent Owner against Multisorb Technologies. The complaint alleges infringement by Multisorb of the '195 patent (Exhibit 3) but does not state that Multisorb copied Patent Owner's technology in the '195 patent.

Patent Owner contends that the complaint is sufficient to establish copying since the evidence of such would not be accessible to them except through discovery and the complaint, itself, is sufficient because of Rule 11 obligations. Appeal Br. 45–46. However, Patent Owner has not pointed to a statement in the complaint alleging that Multisorb had copied the products claimed in the '195 patent. Contrary to Patent Owner's contention, the Federal Circuit has required evidence of copying:

Not every competing product that arguably falls within the scope of a patent is evidence of copying. Otherwise every infringement suit would automatically confirm the nonobviousness of the patent. Rather, copying requires the replication of a specific product. This may be demonstrated either through internal documents, *see Akamai Techs., Inc. v. Cable & Wireless Internet Servs., Inc.*, 344 F.3d 1186, 1196–97 (Fed. Cir. 2003); direct evidence such as disassembling a patented prototype, photographing its features, and using the photograph as a blueprint to build a virtually identical replica, *see Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1285 (Fed. Cir. 2000); or access to, and substantial similarity to, the patented product (as opposed to the patent), *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1027 (Fed. Cir. 1985),

overruled on other grounds by, *Midwest Indus., Inc. v. Karavan Trailers, Inc.*, 175 F.3d 1356, 1359 (Fed. Cir. 1999) (en banc)

*Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004).

Thus, we are not persuaded by Patent Owner's mere allegation that the claimed packaging system was copied.

### C. UNEXPECTED RESULTS

Patent Owner provides evidence of testing performed using Multiform's MRM 100 scavenger packet that was activated using an oxygen scavenger accelerator. Appeal Br. 46–48. According to Patent Owner, the experiment showed that “Multiform's MRM 100 scavenger packet with the claimed oxygen uptake accelerator produced a desirable result in that the retail cut of raw meat did not turn to an unacceptable brown color (metmyoglobin).” *Id.* at 46. On the other hand, Patent Owner contends that results with the same packet, but without accelerator, were unacceptable.

Multiform's MRM 100 scavenger packet (without being activated with the claimed liquid oxygen uptake accelerator) took “approximately 30 hours for the percent oxygen to be reduced to approximately 0.5% (5,000 PPM) and more than 40 hours for the percent oxygen to be reduced to near 0.0% oxygen.” See also, col. 6, lines 10–37; FIG. 5 of U.S. Patent No. 5,928,560. This process using Multiform's MRM 100 scavenger packet without being activated with the claimed liquid oxygen uptake accelerator failed because

the retail cut of raw meat turned an unacceptable brown color (metmyoglobin).

First DelDuca Decl. 31.

According to Mr. DelDuca:

This was a surprising and unexpected result since those skilled in the art believed that oxygen scavengers could not be used with retail cuts of raw meat because the activation times were too slow to prevent the raw meat from turning metmyoglobin.

First DelDuca Decl. 1130.

Mr. DelDuca's testimony is not persuasive.<sup>6</sup>

First, it is taught in the prior art that the activity of oxygen absorbent is enhanced by the addition of a liquid oxygen uptake accelerator. Specifically, Komatsu teaches "it is essential that the oxygen absorbent contain water or a compound having water of hydration, or the system in which the oxygen absorbent is used contain steam." K5. Komatsu also teaches it "was found that the mixture of a metal powder, a metal halide and water has rapid oxidizing rate, U.S. Ser. No. 816,134 filed on July 15, 1977 now U.S. Pat. No. 4,127,503 [Yoshikawa]." Komatsu, col. 1, 11. 63–65. Hamon also teaches the addition of water to iron, the oxygen absorbent. H7 and H8. Accordingly, the observation that water enhanced the activity of iron would not have been unexpected because that result is described in the prior art.

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<sup>6</sup> We note that Mr. DelDuca did not identify the disclosure in US 5,928,560 where the conditions shown in Figure 5 were tested on meat.

The second question is whether it would have been reasonably expected that the enhanced activity of the oxygen absorbent would “produced a desirable result in that the retail cut of raw meat did not turn to an unacceptable brown color (metmyoglobin).” First DelDuca Decl. ¶ 30. Sakai was relied upon by the Examiner for its teaching of method for preserving meat using deoxidizers, making it “possible to make the meat have a freshly reddish tinge caused by oxymyoglobin quickly as soon as the packaging container is opened.” Sakai, p. 2, 11. 5–8. Based on this disclosure, there was a reasonable expectation that an oxygen scavenger could, under storage conditions, preserve the meat’s red color when opened.

Patent Owner takes the position that Saki is not reliable because “Sakai did not disclose any examples that bloomed a ‘fresh’ red color.” Appeal Br. 42. To support this position, Patent Owner provided declarations by Mr. DelDuca and Melvin C. Hunt, Ph.D. Dr. Hunt has a Ph.D. in Food Science, and testified that he has “performed numerous research projects in Meat Science and Muscle Biology including major emphasis on pigment chemistry, meat color, meat packaging, and factors effecting microbial soundness.” Hunt Decl. ¶ 1 & 2) Both declarants worked in the field of the claimed invention and thus possess the requisite knowledge expected of one of ordinary skill in the art. Consequently, we conclude that the declarants are qualified to testify as to the matters in their declarations.

Dr. Hunt testified in his written declaration that the data in Table 1 of Sakai does not support the Examiner’s conclusion that Sakai’s deoxidizer was successful at recovering the meat’s red color (“bloom”) when opened. Hunt Dec. ¶ 6. Dr. Hunt identified dis-

cussed data in Sakai's Table 1, such as the metamyoglobin levels, which he argues are inconsistent with Sakai's statements that the meat color recovered its color when a deoxidizer was used, but remained brownish when a deoxidizer was not used. *Id.* at 6–8. Based on these alleged inconsistencies and lack of correlations, Dr. Hunt concluded that “the results of Table 1 and descriptions of the same in Sakai are not credible.” *Id.* at 9

First, we shall consider the credibility of Sakai's teachings if Dr. Hunt's statements about the inconsistencies in Sakai are given full weight. For example, Dr. Hunt identified an alleged lack of correlation between the amount of metmyoglobin and color of the meat. Hunt Decl. ¶ 8. The question is whether such inconsistencies, when assumed to be true, undermine Sakai's teaching that deoxidizers would be useful to preserve meat in Weinke's package.

To begin, we cannot ignore the fact, that despite Dr. Hunt's doubt about Sakai's data in Table 1 (V.1.B.i.–iv), Sakai still made strong statements about the benefit of a deoxidizer in promoting a red color upon opening the package:

According to the present invention, meat is closely-sealed together with deoxidizers, and it is, therefore, possible to make the meat have a freshly reddish tinge caused by oxymyoglobin quickly as soon as the packaging container is opened.

Page 2, lines 5–9.

The inventors of the present invention and others had conducted the study on a method for closely-sealing meat together with deoxidizers to prevent the meat from discoloration.

As a result, it was discovered that the reduction of oxygen concentration in the [sealed] container to a specific value within a specific interval of time [after sealing] made it possible to recreate the red color of meat as a fresh one after opening the container.

Page 2, lines 23–29.

The deoxidizer used in the present invention is required to be sufficient to reduce oxygen concentration in the sealed container to 5 % or less within 24 hours after closely-sealing the meat. A too-slow-acting deoxidizer is not preferable.

Page 3, lines 4–7.

Patent Owner did not establish that the statements reproduced above about the efficacy of a deoxidizer were all made in view of the results shown in Table 1. Even if the results in Table 1 are not credible, it has not been shown by Patent Owner that Sakai's statements were completely based on these results, and that a lack of correlation or inconsistencies in Table 1 would offset Sakai's statements that a red meat color would be recreated.

Furthermore, Sakai describes of a list of deoxidizers (at p. 2, 11. 9–17). Example 1 uses only one deoxidizer, "S-100 (product name of a deoxidizer available from Mitsubishi Gasukagaku)." Sakai at p. 5, 1. 13–15. Dr. Hunt's criticism of Sakai's experiments does not undermine Sakai's statements since such experiments were performed with only one example of deoxidizer, S-100, whose composition does not appear to have been identified by Dr. Hunt.

We acknowledge that the declarants identified specific apparent discrepancies in the data collected from the actual experiments performed by Sakai, but despite the data, Sakai still concluded that the meat stored with a deoxidizer recovered its red color.

In sum, the evidence provided by Paetnt [sic] Owner does not establish by preponderance of evidence that the observed bloom would have been unexpected by one of ordinary skill in the art.

#### D. COMMERCIAL SUCCESS

Patent Owner contends that Pactiv's ActiveTech® meat packages, systems and processes of the same have been commercially successful. Appeal Br. 48. Patent Owner states: "Specifically, the biggest protein processors in the U.S. in partnership with the biggest retailers have relied on Pactiv's ActiveTech® meat packages, systems and processes of the same." *Id.*

In order to overcome a finding of obviousness by demonstrating commercial success, "[a] nexus between commercial success and the claimed features is required." *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000). In this case, Patent Owner has not provided evidence of a nexus between the claimed invention and Pactiv's ActiveTech® meat packages. Mr. DelDuca stated that the patent claims covered the commercial products, but did not provide sufficient evidence of such nor that the reason for the success was due to a feature recited in the claim, rather than unclaimed feature or marketing or business strategies. First DelDuca Decl. 1133. In addition to this, Patent Owner has not provided market data, sales figures, or any other information upon which it could

be determined that the packages were commercial successful. *See Tec Air, Inc. v. Denso Mfg. Mich., Inc.*, 192 F.3d 1353, 1361 (Fed. Cir. 1999); *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996); *see also* Answer 19.

#### SUMMARY

After considering the totality of the evidence before us, we conclude that the claimed subject matter of claims 1–9 and 11–25 would have been obvious to one of ordinary skill in the art based on the prior art cited by the Examiner for the reasons discussed above.

Claims 1, 3, 5, 7, 9, 11–14 are anticipated by Komatsu, Yoshikawa, or Hamon.

#### TIME PERIOD FOR RESPONSE

Requests for extensions of time in this *ex parte* reexamination proceeding are governed by 37 C.F.R. § 1.550(c). *See* 37 C.F.R. § 41.50(f).

AFFIRMED

95a

**APPENDIX F**  
**PATENT AND TRADEMARK OFFICE**

***EX PARTE* REEXAMINATION  
ADVISORY ACTION BEFORE THE FILING OF  
AN APPEAL BRIEF**

THE PROPOSED RESPONSE FILED  
17 January 2013 FAILS TO OVERCOME ALL OF  
THE REJECTIONS IN THE FINAL REJECTION  
MAILED 19 November 2012.

Reexamination Control 90/011,596  
Patent Under Reexamination: 6315921  
Art Unit 3991

MAIL DATE

February 25, 2013

KRISANNE JASTRZAB, Patent and Trademark  
Office Examiner.

Continuation of 4. Patent owner's response filed has overcome the following rejection(s): the rejection of claims 14, 16, 19, 22, 25 and 27 under 35 USC 112, second paragraph and the nonstatutory obviousness-type double patenting rejections. The Terminal Disclaimer filed with the response is proper and has been entered and overcomes the double patenting rejections.

Continuation of 10. The request for reconsideration has been considered but does NOT place the application in condition for allowance because: The arguments, including the declarations of Dr. Melvin Hunt and Gary DelDuca, are not found persuasive in overcoming the art rejections of record in the Final rejection of 11/19/2012. Patent Owner argues that the rejections of claims 3–5, 11–12 and 20–28 is improper and should be withdrawn based on the decision of *Belkin International, Inc. v. Kappos*. Patent Owner asserts that the *Belkin* requires that the Patent Office limit examination of patents under reexamination to that art initially cited in the Request for Reexamination and determined to raise an SNQ. It is Patent Owner's opinion that the pending rejections of claims 3–5, 11–12 and 20–28 are improper because they are based on prior art that was not cited in the original Request for Reexamination for the determination of the SNQ. However, the *Belkin* decision was directed to inter partes reexamination, not ex parte reexamination and was reviewing Third Party Requester's rights and options to pursue a reversal of an adverse decision by the Patent Office with respect to prior art in a proposed SNQ that was denied. The *Belkin* decision does not speak to which art is available to a Specialist in rejecting the claims of a patent under ex parte reexamination after that reexamination has been ordered. MPEP 2256 clearly states that an examiner must consider all art in formulating an office action, including that discovered by a search. Notably also, 37 CFR 1.104(a)(1) states that a thorough investigation of the available prior art relating to the subject matter of the claimed invention is required for preparing an office action (MPEP 2260). The art rejections of claims 3–5, 11–12 and 20–28 are properly presented and maintained.

Patent Owner also argues via the DelDuca declaration filed 1/17/2013 that the applied rejections are improper and do not raise a substantial new question of the patent claims. The DelDuca declaration again argues that the experiment described in the McKedy declaration filed with the Request does not accurately represent the oxygen absorbing capability of the compositions of Komatsu or Yoshikawa for the same reasons asserted in the first DelDuca declaration filed 5/18/2012. The DelDuca declaration does not assert that the results of the McKedy experiment do not show oxygen absorbing capabilities as claimed in the '921 claims, but only that the procedure followed by McKedy contributed to those results. The DelDuca declaration again argues that there are four differences between the procedure followed in the McKedy experiment and that of Example 3 of Komatsu. However, the DelDuca declaration fails to provide experimental results to quantitatively substantiate the assertion that the alleged differences would have changed the results arrived at in the McKedy experiment and thus is not persuasive. The DelDuca declaration also argues that there is no data provided in GB '853 that would motivate one of ordinary skill in the art to investigate its use in other areas requiring oxygen absorption. However, GB '853, discloses the use of an iron powder oxygen absorbing agent, just as the primary references and the '921 patent itself do. The goal stated in the GB '853 is to enhance the activity of the oxygen absorbing agent to optimize production of oxygen free atmospheres. GB '853 also states that utilization of a mediator/activator provides 5 to 10 times better oxygen absorption. These statements alone would certainly present one of ordinary skill in the art reason to investigate use of the configuration taught in GB '853

in other areas seeking oxygen free atmospheres such as meat packaging.

Finally, Patent Owner argues through the Hunt declaration, that the position of the Specialist in the final rejection that it is well recognized in the art of meat packaging that anaerobic bacteria are beneficial in preservation of raw meat based on the teaching of Sakai is incorrect. The Hunt declaration notes that a number of anaerobic bacteria are detrimental to the preservation of raw meat. However, the declaration does not disagree with the Specialist's position that lactic acid bacteria are anaerobic bacteria that are beneficial or that Sakai disclosed the desire to promote the growth of lactic acid bacteria to assist in preventing corruption of raw meat. Though the Hunt declaration does not disagree with the Specialist on the disclosure of Sakai, the declaration instead argues that the disclosure of Sakai is misleading and does not support the conclusion that the benefits of lactic acid bacteria are art recognized. Instead, the Hunt declaration asserts that it is important to limit lactic acid bacteria in raw meat, but again does not disagree with the benefits thereof and thus is not persuasive. The Hunt declaration also argues that the color results disclosed in Sakai are not credible. However, the Hunt declaration does not provide any experimental evidence supporting the arguments and assertions therein and thus is not persuasive.

The 102 and 103 rejections in the Final rejection mailed 11/19/2012 are proper and maintained for the reasons stated there.

99a

**APPENDIX G**  
**PATENT AND TRADEMARK OFFICE**

***EX PARTE* REEXAMINATION  
ADVISORY ACTION BEFORE THE FILING OF  
AN APPEAL BRIEF**

THE PROPOSED RESPONSE FILED  
17 January 2013 FAILS TO OVERCOME ALL OF  
THE REJECTIONS IN THE FINAL REJECTION  
MAILED 19 November 2012.

Reexamination Control 90/011,597  
Patent Under Reexamination: EVANS ET AL.  
Art Unit 3991

MAIL DATE  
February 15, 2013

KRISANNE JASTRZAB, Patent and Trademark  
Office Examiner.

Continuation of 4. Patent owner's response filed has overcome the following rejection(s): Patent owner's response filed has overcome the following rejection(s): the rejection of claims 12, 14, 18, 21, 22 and 24 under 35 USC 112, second paragraph and the nonstatutory obviousness-type double patenting rejections. The Terminal Disclaimer filed with the re-

sponse is proper and has been entered and overcomes the double patenting rejections..

Continuation of 10. The request for reconsideration has been considered but does NOT place the application in condition for allowance because: The request for reconsideration has been considered but does NOT place the application in condition for allowance because: The arguments, including the declarations of Dr. Melvin Hunt and Gary DelDuca, are not found persuasive in overcoming the art rejections of record in the Final rejection of 11/19/2012. Patent Owner argues that the rejections of claims 1–4, 6, 8 and 11–25 is improper and should be withdrawn based on the decision of *Belkin International, Inc. v. Kappos*. Patent Owner asserts that the *Belkin* requires that the Patent Office limit examination of patents under reexamination to that art initially cited in the Request for Reexamination and determined to raise an SNQ. It is Patent Owner's opinion that the pending rejections of claims 1–4, 6, 8 and 11–25 are improper because they are based on prior art that was not cited in the original Request for Reexamination for the determination of the SNQ. However, the *Belkin* decision was directed to inter partes reexamination, not ex parte reexamination and was reviewing Third Party Requester's rights and options to pursue a reversal of an adverse decision by the Patent Office with respect to prior art in a proposed SNQ that was denied. The *Belkin* decision does not speak to which art is available to a Specialist in rejecting the claims of a patent under ex parte reexamination after that reexamination has been ordered. MPEP 2256 clearly states that an examiner must consider all art in formulating an office action, including that discovered by a search. Notably also, 37 CFR 1.104(a)(1) states that a thorough investigation

of the available prior art relating to the subject matter of the claimed invention is required for preparing an office action (MPEP 2260). The art rejections of claims 1-4, 6, 8 and 11-25 are properly presented and maintained.

Patent Owner also argues via the DelDuca declaration filed 1/17/2013 that the applied rejections are improper and do not raise a substantial new question of the patent claims. The DelDuca declaration again argues that the experiment described in the McKedy declaration filed with the Request does not accurately represent the oxygen absorbing capability of the compositions of Komatsu or Yoshikawa for the same reasons asserted in the first DelDuca declaration filed 5/18/2012. The DelDuca declaration does not assert that the results of the McKedy experiment do not show oxygen absorbing capabilities as claimed in the '195 claims, but only that the procedure followed by McKedy contributed to those results. The DelDuca declaration again argues that there are four differences between the procedure followed in the McKedy experiment and that of Example 3 of Komatsu. However, the DelDuca declaration fails to provide experimental results to quantitatively substantiate the assertion that the alleged differences would have changed the results arrived at in the McKedy experiment and thus is not persuasive. The DelDuca declaration also argues that there is no data provided in GB '853 that would motivate one of ordinary skill in the art to investigate its use in other areas requiring oxygen absorption. However, GB '853, discloses the use of an iron powder oxygen absorbing agent, just as the primary references and the '195 patent itself do. The goal stated in the GB '853 is to enhance the activity of the oxygen absorbing agent to optimize production of oxygen free atmospheres. GB

'853 also states that utilization of a mediator/activator provides 5 to 10 times better oxygen absorption. These statements alone would certainly present one of ordinary skill in the art reason to investigate use of the configuration taught in GB '853 in other areas seeking oxygen free atmospheres such as meat packaging.

Finally, Patent Owner argues through the Hunt declaration, that the position of the Specialist in the final rejection that it is well recognized in the art of meat packaging that anaerobic bacteria are beneficial in preservation of raw meat based on the teaching of Sakai is incorrect. The Hunt declaration notes that a number of anaerobic bacteria are detrimental to the preservation of raw meat. However, the declaration does not disagree with the Specialist's position that lactic acid bacteria are anaerobic bacteria that are beneficial or that Sakai disclosed the desire to promote the growth of lactic acid bacteria to assist in preventing corruption of raw meat. Though the Hunt declaration does not disagree with the Specialist on the disclosure of Sakai, the declaration instead argues that the disclosure of Sakai is misleading and does not support the conclusion that the benefits of lactic acid bacteria are art recognized. Instead, the Hunt declaration asserts that it is important to limit lactic acid bacteria in raw meat, but again does not disagree with the benefits thereof and thus is not persuasive. The Hunt declaration also argues that the color results disclosed in Sakai are not credible. However, the Hunt declaration does not provide any experimental evidence supporting the arguments and assertions therein and thus is not persuasive.

103a

The 102 and 103 rejections in the Final rejection mailed 11/19/2012 are proper and maintained for the reasons stated there.

104a

**APPENDIX H**  
**PATENT AND TRADEMARK OFFICE**  
**OFFICE ACTION IN**  
**EX PARTE REEXAMINATION**

This action is made FINAL.

Reexamination Control 90/011,596  
Patent Under Reexamination: 6,315,921  
Art Unit 3991

MAIL DATE

November 19, 2012

KRISANNE JASTRZAB, Patent and Trademark  
Office Examiner.

***Reexamination***

**Status of the Proceeding**

A request for *ex parte* reexamination of claims 1–12 of U.S. patent No. 6,315,921 (hereinafter “the ’921 patent”) was filed by Third Party Requester on 3/24/2011. An Order granting reexamination of claims 1–12 of the ’921 was mailed 6/4/2011. A First Office Action on the Merits was mailed 3/22/2012 rejecting claims 1–6 and 8–12 and indicating claim 7 as confirmed. Patent Owner filed remarks and an

amendment adding new claims 13–28 on 5/18/2012 and a Supplement Amendment and Response on 11/12/2012.

### **Claim Interpretation**

Claim 6 states: “An oxygen scavenging packet of claim 1, wherein said oxygen uptake accelerator is contained within an enclosed space within said packet.” It is noted that broadest reasonable interpretation of this claim language does not require that the absorber and accelerator be in separate spaces with the packet, but merely that both are enclosed within the packet. If separate containment were claimed, Hamon clearly teaches such a configuration.

### ***Claim Rejections — 35 USC § 112***

The following is a quotation of 35 U.S.C. 112(b):

(B) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14, 16, 19, 22, 25 and 27 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

The recitation of “said residual oxygen in the predetermined volume” lacks proper antecedent basis in each of these claims.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 14 and 16–28 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–24 of U.S. Patent No. 5,698,250. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are of the same inventive concept, namely, an oxygen scavenging means in a modified atmosphere package for extending the shelf life of raw meat.

Claims 14 and 16–28 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–10 of U.S. Patent No. 6,138,790. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are of the same inventive concept, namely, an oxygen scavenging means in a modified atmosphere package for extending the shelf life of raw meat.

Claims 14 and 16–28 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–15 of U.S. Patent No. 5,811,142. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are of the same inventive concept, namely, an oxygen scavenging means in a modified atmosphere package for extending the shelf life of raw meat.

Claims 14 and 16–28 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–17 of U.S. Patent

No. 5,948,457. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are of the same inventive concept, namely, an oxygen scavenging means in a modified atmosphere package for extending the shelf life of raw meat.

Claims 14 and 16–28 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–22 of U.S. Patent No. 6,231,905. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are of the same inventive concept, namely, an oxygen scavenging means in a modified atmosphere package for extending the shelf life of raw meat.

***Claim Rejections — 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

—

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1–2, 6, 8–9 and 13–16 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent No. 4,166,807 to Komatsu et al., (hereinafter referred to as “Komatsu”) as evidenced by the declaration by George McKedy**

**(hereinafter “the McKedy declaration”) filed 3/24/2011 with the request for reexamination.**

Komatsu teaches an oxygen absorbent for the preservation of foodstuffs including meat. The absorbent utilizes iron and a metal halide as well as a particular amount of water to achieve optimized absorption rates. Fillers, such as silica gel, can be included as well, and Komatsu further teaches the presence of alkaline materials such as carbonates which are recognized carbon dioxide generators. Komatsu teaches placement of the oxygen absorbent components into a perforated polyethylene film-laminated paper bag which is oxygen permeable. The bag is then used to remove oxygen from a contained space. Example 3 particularly gives specific amounts of iron powder, sodium chloride, water and a silica gel filler placed into the bag. See particularly column 1, lines 5–10 and lines 63–65, column 3, lines 5–35 and lines 50–68, column 4, lines 50–60 and Example 3.

The McKedy declaration presents test data that an oxygen absorbent having the parameters set forth in Example 3 of Komatsu inherently meets the functional limitations regarding absorbent capacity set forth in the independent claims 1 and 8 of the '921 patent.

It is noted that Table 6 of Komatsu refers to the presence of “N<sub>2</sub>O” nitrous oxide or “laughing gas”, however, it is clear from a complete reading of the Komatsu patent, particularly Example 3, that the “N<sub>2</sub>O” was recited in error and in fact, should be H<sub>2</sub>O.

With respect to claims 13 and 15, the McKedy declaration showed oxygen levels as low as 0.1% after 90 minutes and 0.1% is held to reasonably be “about 0%”.

With respect to claims 14 and 16, the McKedy declaration clearly shows oxygen reduction at the rates claimed in the instant patent (for instance, less than 0.5% remaining after 90 minutes) and as such it would be inherent that this rate would be sufficient to prevent the formation of metmyoglobin of a retail cut of raw meat and allows the retail cut of raw meat to bloom to a bright red color.

**Claims 1, 6, 8, 10 and 13–16 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent No. 4,127,503 to Yoshikawa et al., (hereinafter referred to as “Yoshikawa ’503”) as evidenced by the McKedy declaration.**

Yoshikawa ’503 teaches an oxygen absorbent for the preservation of foodstuffs including meat. The absorbent utilized iron and a metal halide as well as a particular amount of water to achieve optimized absorption rates. Yoshikawa ’503 further teaches the presence of an alkaline material such as carbonates, which are recognized carbon dioxide generators. Yoshikawa ’503 teaches placement of the oxygen absorbent components into a perforated polyethylene film-laminated paper bag which is oxygen permeable. The bag is then used to remove oxygen from a contained space. Comparative example 2 particularly gives specific amounts of iron powder, sodium chloride and water that are placed into the bag. See particularly column 1, lines 5–10, column 3, lines 60–68, column 4, line 65 through column 5, line 3, and Comparative Example 2.

It is noted that Yoshikawa ’503 teaches substantially the same invention as that found in Komatsu (and is, in fact, referred to in Komatsu) so the evidence provided by the McKedy declaration is pertinent to Yoshikawa ’503 as well. Thus Yoshikawa ’503

inherently meets the functional limitations regarding absorbent capacity set forth in the independent claims 1 and 8 of the '921 patent.

With respect to claims 13 and 15, the McKedy declaration showed oxygen levels as low as 0.1% after 90 minutes and 0.1% is held to reasonably be “about 0%”.

With respect to claims 14 and 16, the McKedy declaration clearly shows oxygen reduction at the rates claimed in the instant patent (for instance, less than 0.5% remaining after 90 minutes) and as such it would be inherent that this rate would be sufficient to prevent the formation of metmyoglobin of a retail cut of raw meat and allows the retail cut of raw meat to bloom to a bright red color.

### ***Claim Rejections — 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1–2, 5–6, 8–9, 12–22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable**

**over JP 58-158129 to Sakai (hereinafter referred to as “Sakai”) and GB 1,556,853 (hereinafter referred to as “GB ’853”).**

Sakai teaches a method of preserving raw meat by sealing the meat in a gas impermeable container with an oxygen scavenger capable of reducing the oxygen concentration within the container to 5% or less within 24 hours and preferably to 0.1% or less in 12 hours. Sakai recognizes that packaging itself can hold residual oxygen that can detrimentally affect the freshness and quality of the packaged meat. A preferred main active ingredient of the oxygen scavenger is an iron powder along with a metal halide. The oxygen scavenger is contained in an oxygen permeable material and placed within a container to remove the oxygen content therefrom. Sakai further notes that the preservation of meat with the removal of oxygen from the packaging also promotes the growth of lactic acid bacteria which acts to prevent corruption of the meat. See page 1, lines 23-28, page 2, lines 15-30, page 3, lines 1-25 and page 4, lines 6-15 and lines 20-25 of the translation.

GB ’853 teaches a configuration for enhancing the activity of an oxygen absorber to optimize the production of an oxygen-free atmosphere necessary for oxygen sensitive materials, such as anaerobic bacteria cultures. The activity of the oxygen absorber is enhanced by contact with a reaction mediator and activator. The preferred oxygen absorbing agent is iron powder and the preferred mediators include acetic acid and most preferably, water. The absorber can include absorption fillers such as silica gel in order to retain the activator, and can also include a carbon dioxide generating source such as sodium carbonate. In use, the iron powder in dry form is directly con-

tacted with the mediator/activator and the reaction occurs comparatively quickly to that performed without the mediator activator. GB '853 teaches that utilization of the mediator/activator provides 5 to 10 times better absorption ability. GB '853 further teaches providing the dry components of the reaction in a paper sachet, to which a predetermined amount of water is introduced to activate the reaction. The sachet is placed in a closed vessel and an oxygen-free atmosphere is produced in a few minutes. See particularly page 1, column 1, lines 18–32 and all of column 2, page 2, column 1, lines 18–56 and column 2, claims 5–8.

It would have been obvious to one of ordinary skill in the art to utilize a mediator/activator as taught in GB '853 with the oxygen scavenger of Sakai because, as disclosed by GB '853, it would provide enhanced absorption of oxygen thereby preventing the onslaught of oxidative deterioration of the meat. Sakai teaches reduction of the oxygen concentration within the container to 5% or less within 24 hours and preferably to 0.1% or less in 12 hours and GB '853 clearly teaches optimizing the activity of this same oxygen scavenger thus it is held that the enhanced optimization of the scavenger of Sakai with the activator of GB '853 would intrinsically provide the activity levels instantly claimed.

**Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai in view of GB '853 as applied to claims 1–2, 5–6, 8–9, 12–22 and 24 above, and further in view of U.S. patent No. 5,262,375 to McKedy (hereinafter referred to as “McKedy '375”).**

While both Sakai and GB '853 teach the use of iron, neither specifically disclose that the iron is electrolytically annealed and reduced.

McKedy '375 teaches that electrically annealing and reducing iron for oxygen absorption act to enhance the activity of the iron, particularly at lower temperatures such as required for refrigeration of raw meats. Electrically annealed and reduced iron provides a more rapid rate of oxygen absorption. McKedy '375 teaches the use of such iron in an oxygen permeable envelope for use with food products. The oxygen absorbing composition also includes a salt, which when combined with water, activates the iron. Silica gel may also be present to retain the water in the composition. See particularly column 1, lines 21–53, column 2, lines 15–40, column 3, lines 5–35 and lines 44–50, column 4, lines 60–68 and column 5, lines 1–15.

It would have been obvious to one of ordinary skill in the art to utilize electrically annealed and reduced iron as taught in McKedy '375 for the iron of the combination of Sakai and GB '853 because of the recognized improvement in oxygen reduction rates provided by electrically annealing and reducing the iron, particularly for the refrigerated storage of foods such as meat.

**Claims 1–2, 4, 6, 8–10 and 13–23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai in view of EP 468,880 to Hamon et al. (hereinafter referred to as “Hamon”).**

Sakai is applied as set forth above.

Hamon teaches an oxygen absorbing device which provides enhanced absorption in food packages containing oxygen sensitive food items. The device

utilizes a dual compartment package for separate containment of the reaction components to optimize oxygen absorption by preventing premature reaction activity. The package is configured with a rupturable membrane separating the two compartments to allow mixing and activation of the oxygen absorber only immediately prior to use. The reactants include in one compartment, an oxygen reducing agent, preferably iron powder in a dry form, and in the other compartment, activation chemicals in fluid form for implementation of enhanced reducing activity, including an electrolyte in the form of a brine solution. The components in each compartment are supplied in predetermined amounts. Hamon teaches that rupture of the membrane to allow mixing and reaction of the components facilitates a more rapid reaction with a greater absorption capacity. Hamon further teaches the presence of a water-retaining support material such as silica gel and a carbon dioxide generator. Hamon notes that generation of carbon dioxide is useful to slow the development of undesirable bacterial flora. See particularly page 1 lines 4–6, lines 9–10, lines 16–21, lines 27–33, lines 40–44 and lines 54–58, page 2, lines 1–4, lines 21–22, lines 28–29 and lines 35–72, page 3, lines 18–23, lines 26–27 and the examples of the translation of the description.

It would have been obvious to one of ordinary skill in the art to utilize the containment system and activator as taught in Hamon with the oxygen scavenger of Sakai because it would provide enhanced absorption of oxygen thereby preventing the onslaught of oxidative deterioration of the meat. Sakai teaches reduction of the oxygen concentration within the container to 5% or less within 24 hours and preferably to 0.1% or less in 12 hours and Hamon clearly teaches optimizing the activity of this same oxygen

scavenger thus it is held that the enhanced optimization of the scavenger of Sakai with the activator of Hamon would intrinsically provide the activity levels instantly claimed.

**Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai in view of Hamon as applied to claims 1-2, 4, 6, 8-10 and 13-23 above, and further in view of McKedy '375.**

While both Sakai and Haman teach the use of iron, neither specifically disclose that the iron is electrolytically annealed and reduced.

McKedy '375 is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize electrically annealed and reduced iron as taught in McKedy '375 for the iron of the combination of Sakai and Hamon because of the recognized improvement in oxygen reduction rates provided by electrically annealing and reducing the iron, particularly for the refrigerated

storage of foods such as meat.

**Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu as applied to claims 1-2, 6, 8-9 and 13-16 above, and further in view of GB '853.**

Komatsu fails to specifically disclose the use of an acid to activate the oxygen absorber.

GB '853 is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize a mediator/activator, such as the acids taught in GB '853 with the oxygen scavenger of Komatsu because, as disclosed by GB '853, it

would provide enhanced absorption of oxygen thereby preventing the onslaught of oxidative deterioration of the meat.

**Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu as applied to claims 1–2, 6, 8–9 and 13–16 above, and further in view of McKedy '375.**

Komatsu teaches the use of iron as the main active ingredient but does not specifically disclose that the iron is electrolytically annealed and reduced.

McKedy '375 is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize electrically annealed and reduced iron as taught in McKedy '375 for the iron of Komatsu because of the recognized improvement in oxygen reduction rates provided by electrically annealing and reducing the iron, particularly for the refrigerated storage of foods such as meat.

**Claims 17–19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu.**

Komatsu is applied as set forth above. Komatsu clearly states that that the purpose of the oxygen absorbent is for the preservation of foodstuffs including meat (column 1, lines 5–10). It would have been obvious to utilize the oxygen absorbent composition of Komatsu with a retail cut of raw meat because preservation of meat is a clear goal recited in Komatsu.

With respect to claim 18, the McKedy declaration showed oxygen levels as low as 0.1% after 90 minutes and 0.1% is held to reasonably be “about 0%”.

With respect to claim 19, the McKedy declaration clearly shows oxygen reduction at the rates claimed in the instant patent (for instance, less than 0.5% remaining after 90 minutes) and as such it would be inherent that this rate would be sufficient to prevent the formation of metmyoglobin of a retail cut of raw meat and allows the retail cut of raw meat to bloom to a bright red color.

**Claims 2, 5, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa '503 as applied to claims 1, 6, 8, 10 and 13-16 above, and further in view of GB '853.**

Yoshikawa '503 fails to specifically disclose the use of an acid to activate the oxygen absorber.

GB '853 is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize a mediator/activator, such as the acids taught in GB '853 with the oxygen scavenger of Yoshikawa '503 because, as disclosed by GB '853, it would provide enhanced absorption of oxygen thereby preventing the onslaught of oxidative deterioration of the meat.

**Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa '503 as applied to claims 1, 6, 8, 10 and 13-16 above, and further in view of McKedy '375.**

Yoshikawa '503 teaches the use of iron as the main active ingredient but does not specifically disclose that the iron is electrolytically annealed and reduced.

McKedy '375 is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize electrically annealed and re-

duced iron as taught in McKedy '375 for the iron of Yoshikawa '503 because of the recognized improvement in oxygen reduction rates provided by electrically annealing and reducing the iron, particularly for the refrigerated storage of foods such as meat.

**Claims 17–19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa '503.**

Yoshikawa '503 is applied as set forth above. Yoshikawa '503 clearly states that the purpose of the oxygen absorbent is for the preservation of foodstuffs including meat (column 1, lines 5–15). It would have been obvious to utilize the oxygen absorbent composition of Yoshikawa '503 with a retail cut of raw meat because preservation of meat is a clear goal recited in Yoshikawa '503.

With respect to claim 18, the McKedy declaration showed oxygen levels as low as 0.1% after 90 minutes and 0.1% is held to reasonably be “about 0%”.

With respect to claim 19, the McKedy declaration clearly shows oxygen reduction at the rates claimed in the instant patent (for instance, less than 0.5% remaining after 90 minutes) and as such it would be inherent that this rate would be sufficient to prevent the formation of metmyoglobin of a retail cut of raw meat and allows the retail cut of raw meat to bloom to a bright red color.

**Claims 25–28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent No. 3,574,642 to Weinke (hereinafter referred to as “Weinke”) in view of Sakai and GB '853.**

Sakai and GB '853 are applied as set forth above.

Weinke teaches a package for containing raw meats under anaerobic conditions during storage to prevent oxidative deterioration of the meat prior to display for consumer purchase. The package having an inner, gas flushed or evacuated, oxygen-permeable container and an outer, gas flushed or evacuated, oxygen-impermeable container. The inner and outer containers may be provided in a variety of shapes, are each generally made of a polymeric material including PVC or polyethylene for the inner container, and can be heat sealed. Flushing can be performed with an inert gas such as nitrogen. The inner container can clearly be removed from the outer container without destroying the inner container. See particularly the abstract, column 1, lines 6570, column 2, lines 1–40, column 3, lines 5–14 and column 4, lines 20–25. Weinke is silent as to the inclusion of an oxygen scavenger in the outer package.

It would have been obvious to one of ordinary skill in the art to include an oxygen scavenger as taught in Sakai between the inner and outer containers of Weinke with the enhanced utilization of the activation means taught in GB '853 because it would enhance the protection provided by the inert gas flushing of Weinke by absorbing any residual oxygen present with the enhanced action of the scavenger preventing the onslaught of oxidative deterioration of the meat. Sakai teaches reduction of the oxygen concentration within the container to 5% or less within 24 hours and preferably to 0.1% or less in 12 hours and GB '853 clearly teaches optimizing the activity of this same oxygen scavenger thus it is held that the enhanced optimization of the scavenger of Sakai with the activator of GB '853 would intrinsically provide the activity levels instantly claimed.

**Claims 25–28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai in view of Hamon and Weinke.**

All of Sakai, Hamon and Weinke are applied as set forth above.

It would have been obvious to one of ordinary skill in the art to include an oxygen scavenger as taught in Sakai between the inner and outer containers of Weinke with the enhanced utilization of the activation means taught in Hamon because it would enhance the protection provided by the inert gas flushing of Weinke by absorbing any residual oxygen present with the enhanced action of the scavenger preventing the onslaught of oxidative deterioration of the meat. Sakai teaches reduction of the oxygen concentration within the container to 5% or less within 24 hours and preferably to 0.1% or less in 12 hours and Hamon clearly teaches optimizing the activity of this same oxygen scavenger thus it is held that the enhanced optimization of the scavenger of Sakai with the activator of Hamon would intrinsically provide the activity levels instantly claimed.

**Claims 20–23 and 25–28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinke in view of Komatsu, as evidenced by the McKedy declaration.**

Weinke and Komatsu are applied as set forth above.

It would have been obvious to one of ordinary skill in the art to include an oxygen scavenger as taught in Komatsu between the inner and outer containers of Weinke because it would enhance the protection provided by the inert gas flushing of Weinke by absorbing any residual oxygen present with the

enhanced action of the scavenger preventing the onslaught of oxidative deterioration of the meat. The McKedy declaration presents test data that an oxygen absorbent having the parameters set forth in Example 3 of Komatsu inherently meets the functional limitations regarding absorbent capacity set forth claims of the '921 patent.

**Claims 20–23 and 25–28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinke in view of Yoshikawa '503, as evidenced by the McKedy declaration.**

Weinke and Yoshikawa '503 are applied as set forth above.

It would have been obvious to one of ordinary skill in the art to include an oxygen scavenger as taught in Yoshikawa '503 between the inner and outer containers of Weinke because it would enhance the protection provided by the inert gas flushing of Weinke by absorbing any residual oxygen present with the enhanced action of the scavenger preventing the onslaught of oxidative deterioration of the meat. It is noted that Yoshikawa teaches substantially the same invention as that found in Komatsu (and is, in fact, referred to in Komatsu) so the evidence provided by the McKedy declaration is pertinent to Yoshikawa '503 as well. Thus Yoshikawa '503 inherently meets the functional limitations regarding absorbent capacity set forth in the claims of the '921 patent.

### ***Response to Arguments***

Patent Owner disputes the applicability of the McKedy declaration as evidence of inherency for Komatsu and Yoshikawa '503. Patent Owner asserts that the declaration is flawed because the declaration states an experiment was conducted in accord-

ance with Example 3, Run 2 of Komatsu yet iron with 0.5% sulfur was not used in the experiment as listed in Example 3, Run 2 of Komatsu. Patent Owner goes on to assert that as such, the experiment in the McKedy declaration does not accurately follow Komatsu and cannot be relied upon because it is missing an element stated by Komatsu to be “critical”. The declaration is silent as to the presence of sulfur in the iron, however, the criticality of the sulfur is specific to the generation of hydrogen during the oxygen scavenging reaction. Komatsu notes that a goal of the invention is to minimize or eliminate hydrogen generation during oxygen absorption and that the addition of sulfur to a known scavenging composition limits the risk of hydrogen evolution.

Komatsu makes it clear that the sulfur is critical only for the aspect of suppressing hydrogen evolution, not for the oxygen absorbing ability of the composition and in fact, notes that if too much sulfur is present it has a detrimental effect on the oxygen absorption. See column 1, line 64 through column 2, line 37. The McKedy declaration is silent regarding the presence or absence of sulfur in the iron. Given that the sulfur in the composition of Komatsu is critical only to hydrogen suppression and not the oxygen absorption, it is maintained that the experiment of the McKedy declaration, whether sulfur was present or not, is an accurate demonstration of the oxygen absorbing capability of the composition disclosed in Komatsu and Yoshikawa '503 as well.

Patent Owner further disputes the application of the McKedy declaration because Example 3 of Komatsu places a “sanitary cotton impregnated with 10 ml of water” into an enclosed volume with the packet containing the oxygen absorbing composition but the

McKedy declaration does not place anything in the enclosed volume with the oxygen absorbing packet. Patent Owner asserts that the McKedy declaration does not properly provide evidence regarding Komatsu because the experiment of the declaration does not follow the steps of Example 3 exactly. However, the experiment of the McKedy declaration is not a test of the procedure of Example 3, but instead is a test of the oxygen absorbing properties of the composition of Example 3, Run 2 in a refrigerated environment (see Item 6, of the declaration). Komatsu's inclusion of the water-impregnated cotton is irrelevant to the test of the composition of Example 3, Run 2 performed by McKedy. The test results of McKedy clearly and properly provide evidence of the inherency of the claimed oxygen absorbing capabilities of the composition of Komatsu and Yoshikawa '503 as well.

Patent Owner also argues that the experiment of the McKedy declaration does not use the same material to contain the composition. Komatsu uses a perforated polyethylene film laminated paper bag to contain the composition while the McKedy declaration uses a Tyvek® packet which is generally an oxygen permeable polyethylene material. The Patent Owner does not present any arguments as to how the material difference would have affected the results arrived at by McKedy. Both materials are polyethylene, both are oxygen permeable whether from perforation or as an intrinsic property of the material. Patent Owner fails to provide any evidence that the packet material has any bearing on the oxygen absorbing capabilities of the composition tested.

Finally, Patent Owner argues that the amounts of ingredients in the composition used in the McKedy

declaration were not the same as those recited in Example 3, Run 2 of Komatsu and thus do not accurately represent the composition set forth therein. The McKedy declaration clearly states that the ingredients of the tested composition are provided in accordance with the ratios disclosed in Komatsu (item 8 of the declaration). Komatsu specifically notes that the invention is not limited to the specific amounts of components recited in the examples but that the percentages or parts by weight of each component should be used to formulate effective compositions. Thus the McKedy declaration properly represents the teachings of Komatsu in testing a composition formed of components in the ratios disclosed therein. See Komatsu column 3, lines 525 and lines 30–35, column 4, lines 5–10 and column 5, lines 29–35. The McKedy declaration is held to properly provide evidence of the inherency of the claimed oxygen absorbing capabilities for the compositions of both Komatsu and Yoshikawa '503.

Patent Owner further asserts that Komatsu and Yoshikawa '503 as evidenced by the McKedy declaration do not properly raise substantial new questions of patentability (SNQ) as to claim 1–6 and 8–21 of the '921 patent. However, the test data provided by the McKedy declaration clearly presents a new light in which to view the compositions of both Komatsu and Yoshikawa '503 by showing explicit evidence of the inherency of the claimed oxygen absorbing capabilities for the compositions of Komatsu and Yoshikawa '503.

Patent Owner also argues that the application of Sakai and GB '853 is improper because the rejection is not properly suggested or supported by the prior art. Patent Owner alleges through the declaration of

Gary DelDuca filed with the remarks, that the test results provided in Fig. 1 of Sakai are actually undesirable because they indicate metmyoglobin levels at 96% on day 1 and thus would not lead one of ordinary skill in the art to utilize the oxygen scavenger therein. Patent Owner fails to note that the metmyoglobin levels *decreased* as the test progressed and the oxygen levels were clearly shown within the range instantly claimed (of note, the '921 patent does not claim any specific metmyoglobin levels), thus it is unclear how the reported results would be deemed "undesirable". In fact, the discussion of the test results states that the samples recovered their fresh red color (i.e. "bloomed") when opened, just as discussed in the DelDuca declarations as being highly desirable and as now claimed in a number of the newly added claims (see page 6, lines 17–18 of the Sakai translation).

Patent Owner further argues that one of ordinary skill in the art would not look to or use the teachings of GB '853 because it is directed to a "process for production of an oxygen-poor or oxygen-free atmosphere for culturing anaerobic bacteria", not fresh red meat packaging. Patent Owner focuses on "culturing anaerobic bacteria" but appears to ignore the fact that the primary goal of GB '853 is the "production of an oxygen-poor or oxygen-free atmosphere", the same goal held by Sakai and the '921 patent. Patent Owner alleges that GB '853 is non-analogous because of the use for culturing anaerobic bacteria, which Patent Owner asserts is contrary to the purpose of Sakai which attempts to prevent the growth of bacteria. However, culturing anaerobic bacteria does not remove GB '853 from the realm of art analogous to that of Sakai and the instant invention because it is well recognized that anaerobic bac-

teria are beneficial in the preservation of raw meat. Sakai explicitly discloses the desire to promote the growth of lactic acid bacteria, which are anaerobic bacteria, because the bacteria assist in preventing corruption of the meat (see page 4, lines 20–25 of the Sakai translation). Sakai and GB '853 clearly present common, not divergent, goals and are properly analogous and combinable.

Patent Owner further argues that Sakai experiences very different oxygen absorption conditions because the system includes packaging exposed to the atmosphere, while GB '853 is an anaerobic vessel. However, the packages of the Sakai systems are only exposed to the atmosphere after the desired oxygen absorption-stage is no longer needed. While the oxygen absorption agent is active, the package of the combination would be essentially anaerobic, based on the outer oxygen impermeable outer package and the oxygen levels achieved and maintained within that packaging.

Patent Owner also argues that one of ordinary skill in the art would not have looked to GB '853 because Patent Owner states that GB '853 differs substantially in the amount of time required to get to a desirable oxygen level. Patent Owner indicates that GB '853 produces an oxygen-free atmosphere after only a few minutes while Sakai and the instant invention require time frames of an hour or more. It is unclear why the increased speed of the oxygen absorption of GB '853 would not draw the notice of one of ordinary skill in the art. Sakai and the '921 patent explicitly acknowledge the objective of eliminating all oxygen present as quickly as possible. Clearly the speed of the GB '853 absorbing agent itself would be a motivating factor for use thereof.

Patent Owner additionally argues that the agent of GB '853 is not activated but that the amount of activity depends on critical precise ratios of components of the agent which Patent Owner alleges are based on the desired amount of carbon dioxide generated and points to page 2, col. 1, lines 8–9 of GB '853 in support thereof. Patent Owner is taking that citation in GB '853 out of context. A complete reading of the reference shows *when* carbon dioxide generation (such as to maintain a headspace in the vessel upon elimination of the oxygen) is desired a particular ratio sodium carbonate to citric acid activator is required. The generation of carbon dioxide is not required and the activator is present whether carbon dioxide is generated or not (see Example 3). Patent Owner also asserts that the speed of absorption is dependent upon the amount of iron oxide present and points to page 2, col. 1, lines 14–17 of GB '853. Again Patent Owner is reading the citation out of context. Precise ratios of the components of the oxygen absorbing agent, including iron oxide are required to achieve the desired absorption ability, the absorption ability being the amount of oxygen the agent can absorb, not the speed with which it does so. A reaction mediator is introduced to the oxygen absorbing agent in a predetermined amount to activate the oxygen absorbing agent and initiate the reaction which then proceeds “comparatively quickly” to that performed without the reaction mediator. See the entire content of page 2, particularly lines 4–6, lines 18–35, Examples 1 and 3.

Patent Owner further asserts secondary considerations such as long-felt need, copying, commercial success and unexpected results. Patent Owner asserts the existence of a long-felt need in the art for a means to obtain consistent “blooming” in retail cuts

of pigment-sensitive raw meats as detailed in the DelDuca declaration, and that Pactiv's modified atmosphere packages, systems and methods address this need. The Del Duca declaration state that the Pactiv ActiveTech® meat packaging system and processes are "examples that would be covered by independent claims 1, 8, 17, 20, 25 and 27" of the '921 patent, however, no factual evidence is supplied to support that statement or that such ActiveTech® products satisfied a long-felt, unsolved need. As pointed out above, Sakai explicitly discloses the desire to obtain blooming as discussed in the DelDuca declaration and provides evidence of the achievement of that blooming in the test results noting that the samples recovered their fresh red color (page 6, lines 17–18 of the translation). Thus Patent Owner's assertion of addressing long-felt need is unsubstantiated and not persuasive in overcoming the rejections of record.

Patent Owner also asserts the existence of copying by alleging that at least one company "is making, using, selling and offering for sale products that use the systems, products and/or methods described in the present invention". Patent Owner fails to provide any probative evidence supporting this assertion, but merely refers to an exhibit of the infringement complaint filed against those companies by Pactiv which itself is insufficient to establish evidence of copying. Patent Owner has not provided any factual evidence that the alleged copies are identical to the claimed invention, nor that the allegedly copying companies expended efforts to develop their own products prior to resorting to copying. The assertion of copying is not persuasive in overcoming the rejections of record.

Patent Owner also asserts the existence of unexpected results through the DelDuca declaration

which refers to test results recited in related U.S. patent No. 5,928,560 (the '560 patent) as supporting unexpected results for the claimed invention of the '921 patent. The test results referred to, show enhanced activity of a commercially available oxygen scavenger when activated with the addition of water or another accelerator immediately prior to use versus that which is not activated. The teachings of both GB '853 and Hamon contradict the unexpectedness of the test results of the '560 patent because each explicitly disclosed enhanced activity of an oxygen scavenger with the addition of an activating agent such as water immediately prior to use as detailed in the rejections of record and above. Patent Owner's assertion of unexpected results is not persuasive in overcoming the rejections of record.

Finally, Patent Owner asserts the existence of commercial success by stating that the "biggest protein processors in the U.S. in partnership with the biggest retailers have relied on Pactiv's ActiveTech® meat packages, systems and processes of the same". The statement is not accompanied by objective evidence establishing a nexus between the ActiveTech® products and the claimed invention, or evidence that any alleged success is attributable to claimed invention. Patent Owner's assertion of commercial success is not persuasive in overcoming the pending rejections.

Patent Owner argues that the combination of Sakai and Hamon is improper because the rejection is not properly suggested or supported by the prior art, essentially reiterating the arguments present above with respect to the combination of Sakai and GB '853. Patent Owner initially asserts that the Hamon mentions food products that will degrade in

contact with oxygen and recites some of the examples listed in Hamon such as dried fish, pastries, mayonnaise, etc. Patent Owner asserts that such products have nothing to do with the present invention and thus Hamon is non-analogous and not properly combinable with Sakai. Sakai and the '921 patent are both directed to protective packaging for oxygen-sensitive retail cuts of fresh red meat, a food product. It is unclear how Hamon's goal of protecting oxygen-sensitive food products from oxidative deterioration could possibly be non-analogous merely because Hamon does not specifically recite "fresh red meat" in a list of possible food products to be

addressed. Clearly given the teachings of Sakai, fresh red meat is well-recognized in the art as an oxygen-sensitive food product. Further, Sakai explicitly addresses the desire for "blooming" associated with such packaging and oxygen control.

The declaration and arguments provided has been fully considered but are not found to be persuasive in overcoming the rejections of record.

**Supplement Amendment and Response  
filed 11/12/2012**

The Supplement Amendment and Response filed 11/12/2012 will **not** be entered as it does not comply with 37 CFR 1.111 (a)(2). The Supplement response was not filed within a period during which action by the Office was suspended under § 1.103(a) or (c) which would warrant thereof. A supplemental response will not be entered as a matter of right, but may be entered in instances limited to (A) cancellation of claim(s); (B) adoption of examiner suggestion(s); (C) placement of the application in condition for allowance; (D) reply to an office requirement

made after the first reply was filed; (E) correction of informalities; or (F) simplification of issues for appeal. The supplemental response was filed 11/12/2012 to provide a discussion by Patent Owner of the recent *Belkin Intl Inc. v. Kappos*, 104 U.S.P.Q. 2d 1348 (Fed. Cir. 2012) as Patent Owner sees it relating to the instant case, the supplemental response does not follow any of the specific instances listed above for entry and as such the supplemental response of 11/12/2012 will **not** be entered.

#### **Confirmed Claim**

Claim 7 stands confirmed as noted in the FAOM mailed 3/22/2012. The closest prior art of record, namely U.S. patent No. 5,242,111 to Nakoneczny et al., (hereinafter “Nakoneczny”) fails to clearly teach or suggest containment of the oxygen uptake accelerator within a bibulous wick, said wick extending from the exterior of the packet to the interior thereof as required by the language of claim 7. Nakoneczny teaches a configuration for a slow diffuser wherein the liquid to be dispensed is contained in an impermeable package. A wick extends from the interior of the package to the exterior thereof. The liquid to be dispensed is drawn up the wick to the portion outside the package where it will slowly diffuse due to evaporation. All applied references, particularly GB '853 and Hamon, teach the need for rapid, immediate mixing of the mediators/accelerators and the oxygen absorbers upon contact in order to effectively instigate rapid oxygen absorption. The slow diffusion provided by the structure of Nakoneczny would not provide the desired delivery of an accelerator for immediate and complete dispensing or distribution to the oxygen absorbing composition thus one of ordinary skill in the art would not reasonably configure

the oxygen uptake accelerator with the structure taught in Nakoneczny.

### ***Conclusion***

#### ***Duty of Disclosure***

The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 6,315,921 throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

#### ***Service of Papers***

After the filing of a request for reexamination by a third party requester, any document filed by either the patent owner or the third party requester must be served on the other party (or parties where two or more third party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR 1.248. See 37 CFR 1.550(f).

Patent owner's amendment filed 5/18/2012 necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

A shortened statutory period for response to this action is set to expire 2 from the mailing date of this action.

**Extensions of time under 37 CFR 1.136(a) do not apply in reexamination proceedings.** The provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceed-

ing. Further, in 35 U.S.C. 305 and in 37 CFR 1.550(a), it is required that reexamination proceedings “will be conducted with special dispatch within the Office.”

**Extensions of time in reexamination proceedings are provided for in 37 CFR 1.550(c).** A request for extension of time must be filed on or before the day on which a response to this action is due, and it must be accompanied by the petition fee set forth in 37 CFR 1.17(g). The mere filing of a request will not effect any extension of time. An extension of time will be granted only for sufficient cause, and for a reasonable time specified.

The filing of a timely first response to this final rejection will be construed as including a request to extend the shortened statutory period for an additional month, which will be granted even if previous extensions have been granted. In no event, however, will the statutory period for response expire later than SIX MONTHS from the

mailing date of the final action. See MP EP § 2265.

### *Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krisanne Jastrzab whose telephone number is 571-2721279. The examiner can normally be reached on Mon.-Thurs. 6:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Stephen Stein can be reached at 571-272-1544.

Information regarding the status of an application may be obtained from the Patent Application In-

formation Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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**APPENDIX I**  
**PATENT AND TRADEMARK OFFICE**  
**OFFICE ACTION IN**  
**EX PARTE REEXAMINATION**

This action is made FINAL.

Reexamination Control 90/011,597  
Patent Under Reexamination: EVANS ET AL.  
Art Unit 3991

MAIL DATE

November 19, 2012

KRISANNE JASTRZAB, Patent and Trademark  
Office Examiner.

***Reexamination***

**Status of the Proceeding**

A request for *ex parte* reexamination of claims 1–10 of U.S. patent No. 6,395,195 (hereinafter “the ’195 patent”) was filed by Third Party Requester on 3/24/2011. An Order granting reexamination of claims 1–10 of the ’195 was mailed 6/3/2011. A First Action on the Merits was mailed 3/21/2012 rejecting claims 1–9 and confirming claim 10 of the ’195 pa-

tent. Patent Owner filed remarks and an amendment adding new claims 11–25 on 5/18/2012.

### **Claim Interpretation**

Claim 9 states: “An oxygen scavenging packet of claim 5, wherein said oxygen uptake accelerator is contained within an enclosed space within said packet.” It is noted that broadest reasonable interpretation of this claim language does not require that the absorber and accelerator be in separate spaces with the packet, but merely that both are enclosed within the packet. If separate containment were positively claimed, Hamon clearly teaches such a configuration.

### ***Claim Rejections — 35 USC § 112***

The following is a quotation of 35 U.S.C. 112(b):

(B) CONCLUSION. — The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12, 14, 18, 21, 22 and 24 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

The recitation of “said residual oxygen in the predetermined volume” lacks proper antecedent basis in each of these claims.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 12 and 14–25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–24 of U.S. Patent No. 5,698,250. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are of the same inventive concept, namely, an oxygen scavenging means in a modified atmosphere package for extending the shelf life of raw meat.

Claims 12 and 14–25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–10 of U.S. Patent No. 6,138,790. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are of the same inventive concept, namely, an oxygen scavenging means in a modified atmosphere package for extending the shelf life of raw meat.

Claims 12 and 14–25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–15 of U.S. Patent No. 5,811,142. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are of the same inventive concept, namely, an oxygen scavenging means in a modified atmosphere package for extending the shelf life of raw meat.

Claims 12 and 14–25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–17 of U.S. Patent

No. 5,948,457. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are of the same inventive concept, namely, an oxygen scavenging means in a modified atmosphere package for extending the shelf life of raw meat.

Claims 12 and 14–25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–22 of U.S. Patent No. 6,231,905. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are of the same inventive concept, namely, an oxygen scavenging means in a modified atmosphere package for extending the shelf life of raw meat.

***Claim Rejections — 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 5, 7, 9 and 13–14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent No. 4,166,807 to Komatsu et al., (hereinafter referred to as “Komatsu”) as evidenced by the declaration by George McKedy (hereinafter “the McKedy declaration”) filed 3/24/2011 with the request for reexamination.**

Komatsu teaches an oxygen absorbent for the preservation of foodstuffs including meat. The absorbent utilizes iron and a metal halide as well as a particular amount of water to achieve optimized absorption rates. Fillers, such as silica gel, can be included as well, and Komatsu further teaches the presence of alkaline materials such as carbonates which are recognized carbon dioxide generators. Komatsu teaches placement of the oxygen absorbent components into a perforated polyethylene film-laminated paper bag which is oxygen permeable. The bag is then used to remove oxygen from a contained space. Example 3 particularly gives specific amounts of iron powder, sodium chloride, water and a silica gel filler placed into the bag, with the water and iron in the ratios set forth in the instant claims. See particularly column 1, lines 5–10 and lines 63–65, column 3, lines 5–35 and lines 50–68, column 4, lines 50–60 and Example 3.

The McKedy declaration presents test data that an oxygen absorbent having the parameters set forth in Example 3 of Komatsu inherently meets the functional limitations regarding absorbent capacity set forth in the independent claim 5 of the '195 patent.

It is noted that Table 6 of Komatsu refers to the presence of “N<sub>2</sub>O” nitrous oxide or “laughing gas”, however, it is clear from a complete reading of the Komatsu patent, particularly Example 3, that the “N<sub>2</sub>O” was recited in error and in fact, should be H<sub>2</sub>O.

With respect to claim 13, the McKedy declaration showed oxygen levels as low as 0.1% after 90 minutes and 0.1% is held to reasonably be “about 0%”.

With respect to claim 14, the McKedy declaration clearly shows oxygen reduction at the rates claimed in the instant patent (for instance, less than 0.5% remaining after 90 minutes) and as such it would be inherent that this rate would be sufficient to prevent the formation of metmyoglobin of a retail cut of raw meat and allows the retail cut of raw meat to bloom to a bright red color.

**Claims 5, 9 and 13–14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent No. 4,127,503 to Yoshikawa et al., (hereinafter referred to as “Yoshikawa ’503”) as evidenced by the McKedy declaration.**

Yoshikawa ’503 teaches an oxygen absorbent for the preservation of foodstuffs including meat. The absorbent utilized iron and a metal halide as well as a particular amount of water to achieve optimized absorption rates. Yoshikawa ’503 further teaches the presence of an alkaline material such as carbonates, which are recognized carbon dioxide generators. Yoshikawa ’503 teaches placement of the oxygen absorbent components into a perforated polyethylene film-laminated paper bag which is oxygen permeable. The bag is then used to remove oxygen from a contained space. Comparative example 2 particularly gives specific amounts of iron powder, sodium chloride and water that are placed into the bag, with the amounts of the water and iron in the ratios set forth in the instant claims. See particularly column 1, lines 5–10, column 3, lines 60–68, column 4, line 65 through column 5, line 3, and Comparative Example 2.

It is noted that Yoshikawa ’503 teaches substantially the same invention as that found in Komatsu (and is, in fact, referred to in Komatsu) so the evidence provided by the McKedy declaration is perti-

ment to Yoshikawa '503 as well. Thus Yoshikawa '503 inherently meets the functional limitations regarding absorbent capacity set forth in the independent claim 5 of the '195 patent.

With respect to claim 13, the McKedy declaration showed oxygen levels as low as 0.1% after 90 minutes and 0.1% is held to reasonably be "about 0%".

With respect to claim 14, the McKedy declaration clearly shows oxygen reduction at the rates claimed in the instant patent (for instance, less than 0.5% remaining after 90 minutes) and as such it would be inherent that this rate would be sufficient to prevent the formation of metmyoglobin of a retail cut of raw meat and allows the retail cut of raw meat to bloom to a bright red color.

**Claims 1, 3, 5, 7, 9 and 11–14 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 468,880 to Hamon et al. (hereinafter referred to as "Hamon").**

Hamon teaches an oxygen absorbing device which provides enhanced absorption in food packages containing oxygen sensitive food items. The device utilizes an oxygen permeable, water impermeable dual compartment package for separate containment of the reaction components to optimize oxygen absorption by preventing premature reaction activity. The package is configured with a rupturable membrane separating the two compartments to allow mixing and activation of the oxygen absorber only immediately prior to use in a sealed food package. The reactants include in one compartment, an oxygen reducing agent, preferably iron powder in a dry form, and in the other compartment, activation agent

in fluid form for implementation of enhanced reducing activity, including an electrolyte in the form of a brine solution (i.e. water and a salt). The components in each compartment are supplied in predetermined amounts. Hamon teaches that rupture of the membrane to allow direct introduction, mixing and reaction of the components facilitates a more rapid reaction with a greater absorption capacity. Hamon further teaches the presence of a water-retaining support material such as silica gel and a carbon dioxide generator. Hamon notes that generation of carbon dioxide is useful to slow the development of undesirable bacterial flora. Hamon clearly shows examples utilizing the activation agent (or accelerator as stated in the instant claims) and iron in amounts as claimed in the independent claims. As such, Hamon would inherently achieve the oxygen absorption rates claims. See particularly page 1 lines 4–6, lines 9–10, lines 16–21, lines 27–33, lines 40–44 and lines 54–58, page 2, lines 1–4, lines 21–22, lines 28–29 and lines 35–72, page 3, lines 18–23, lines 26–27 and the examples of the translation of the description.

With respect to claims 12 and 14, given that Hamon’s use of iron and activation agent in amounts as claimed, it would be inherent that composition of Hamon would be sufficient to prevent the formation of metmyoglobin of a retail cut of raw meat and allows the retail cut of raw meat to bloom to a bright red color.

With respect to claim 11, the McKedy declaration showed oxygen levels as low as 0.1% after 90 minutes and 0.1% is held to reasonably be “about 0%”.

With respect to claim 12, the McKedy declaration clearly shows oxygen reduction at the rates claimed

in the instant patent (for instance, less than 0.5% remaining after 90 minutes) and as such it would be inherent that this rate would be sufficient to prevent the formation of metmyoglobin of a retail cut of raw meat and allows the retail cut of raw meat to bloom to a bright red color.

***Claim Rejections — 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 3 and 11–12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu together with Hamon.**

Komatsu is applied as set forth above. Komatsu does not specifically teach the introduction of the water directly onto the absorber.

Hamon is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize the containment structure of Hamon in the oxygen absorber of Komatsu with direct delivery of the activation fluid because, as

Hamon teaches, separate containment and direct delivery at the time of use optimizes oxygen absorption by preventing premature reaction activity.

**Claims 1, 3, 7 and 11–12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa '503 together with Hamon.**

Yoshikawa '503 is applied as set forth above. Yoshikawa '503 does not specifically teach the introduction of the water directly onto the absorber.

Hamon is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize the containment structure of Hamon in the oxygen absorber of Yoshikawa '503 with direct delivery of the activation fluid because, as Hamon teaches, separate containment and direct delivery at the time of use optimizes oxygen absorption by preventing premature reaction activity. It would further have been obvious to include the water-retaining silica gel and carbon dioxide generator of Hamon in the composition of Yoshikawa '503 to optimize effectiveness of the oxygen scavenger and to provide generation of carbon dioxide to slow the development of undesirable bacterial flora.

With respect to claim 11, the McKedy declaration showed oxygen levels as low as 0.1% after 90 minutes and 0.1% is held to reasonably be “about 0%”.

With respect to claim 12, the McKedy declaration clearly shows oxygen reduction at the rates claimed in the instant patent (for instance, less than 0.5% remaining after 90 minutes) and as such it would be inherent that this rate would be sufficient to prevent the formation of metmyoglobin of a retail cut of raw

meat and allows the retail cut of raw meat to bloom to a bright red color.

**Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu together with Hamon as applied to claims 1, 3 and 11–12 above, and further in view of U.S. patent No. 5,284,871 to Graf (hereinafter referred to as “Graf”).**

Neither Komatsu nor Hamon specifically disclose the use of deionized water for the water source in activating the oxygen absorber.

Graf teaches an oxygen scavenging composition for use with foods that clearly teaches the effectiveness of deionized water with the composition for activation thereof. See particularly the abstract and column 14, lines 28–31.

It would have been obvious to one of ordinary skill in the art to utilize deionized water as the water source in the combination of Komatsu and Hamon because Graf teaches the recognized effectiveness thereof in oxygen scavenging.

**Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa ’503 together with Hamon as applied to claims 1, 3, 7 and 11–12 above, and further in view of Graf.**

Neither Yoshikawa ’503 nor Hamon specifically disclose the use of deionized water for the water source in activating the oxygen absorber.

Graf is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize deionized water as the water source in the combination of Yoshikawa ’503 and

Hamon because Graf teaches the recognized effectiveness thereof in oxygen scavenging.

**Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu together with Hamon as applied to claims 1, 3 and 11–12 above, and further in view of U.S. patent No. 5,262,375 to McKedy (hereinafter referred to as “McKedy ’375”).**

While both Komatsu and Hamon teach the use of iron, neither specifically disclose that the iron is electrolytically annealed and reduced.

McKedy ’375 teaches that electrically annealing and reducing iron for oxygen absorption act to enhance the activity of the iron, particularly at lower temperatures such as required for refrigeration of raw meats. Electrically annealed and reduced iron provides a more rapid rate of oxygen absorption. McKedy ’375 teaches the use of such iron in an oxygen permeable envelope for use with food products. The oxygen absorbing composition also includes a salt, which when combined with water, activates the iron. Silica gel may also be present to retain the water in the composition. See particularly column 1, lines 21–53, column 2, lines 15–40, column 3, lines 5–35 and lines 44–50, column 4, lines 60–68 and column 5, lines 1–15.

It would have been obvious to one of ordinary skill in the art to utilize electrically annealed and reduced iron as taught in McKedy ’375 for the iron of the combination of Komatsu and Hamon because of the recognized improvement in oxygen reduction rates provided by electrically annealing and reducing the iron, particularly for the refrigerated storage of foods such as meat.

**Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa '503 together with Hamon as applied to claims 1, 3, 7 and 11–12 above, and further in view of McKedy.**

While both Yoshikawa '503 and Hamon teach the use of iron, neither specifically disclose that the iron is electrolytically annealed and reduced.

McKedy '375 is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize electrically annealed and reduced iron as taught in McKedy '375 for the iron of the combination of Yoshikawa '503 and Hamon because of the recognized improvement in oxygen reduction rates provided by electrically annealing and reducing the iron, particularly for the refrigerated storage of foods such as meat.

**Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu as applied to claims 5, 7, 9 and 13–14 above, and further in view of Graf.**

Komatsu does not specifically disclose the use of deionized water for the water source in activating the oxygen absorber.

Graf is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize deionized water as the water source in Komatsu because Graf teaches the recognized effectiveness thereof in oxygen scavenging.

**Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa '503 as applied to claims 5, 9 and 13–14 above, and further in view of Graf.**

Yoshikawa '503 does not specifically disclose the use of deionized water for the water source in activating the oxygen absorber.

Graf is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize deionized water as the water source in Yoshikawa '503 because Graf teaches the recognized effectiveness thereof in oxygen scavenging.

**Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu as applied to claims 5, 7, 9 and 13-14 above, and further in view of McKedy.**

Komatsu teaches the use of iron, but does not specifically disclose that the iron is electrolytically annealed and reduced.

McKedy '375 is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize electrically annealed and reduced iron as taught in McKedy '375 for the iron of Komatsu because of the recognized improvement in oxygen reduction rates provided by electrically annealing and reducing the iron, particularly for the refrigerated storage of foods such as meat.

**Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa '503 as applied to claims 5, 9 and 13-14 above, and further in view of McKedy.**

Yoshikawa '503 teaches the use of iron, but does not specifically disclose that the iron is electrolytically annealed and reduced.

McKedy '375 is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize electrically annealed and reduced iron as taught in McKedy '375 for the iron of Yoshikawa '503 because of the recognized improvement in oxygen reduction rates provided by electrically annealing and reducing the iron, particularly for the refrigerated storage of foods such as meat.

**Claims 5, 7, 9 and 13–21 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 58–158129 to Sakai (hereinafter referred to as “Sakai”) and Hamon.**

Sakai teaches a method of preserving raw meat by sealing the meat in a gas impermeable container with an oxygen scavenger capable of reducing the oxygen concentration within the container to 5% or less within 24 hours and preferably to 0.1% or less in 12 hours. Sakai recognizes that packaging itself can hold residual oxygen that can detrimentally affect the freshness and quality of the packaged meat. A preferred main active ingredient of the oxygen scavenger is an iron powder along with a metal halide. The oxygen scavenger is contained in an oxygen permeable material and placed within a container to remove the oxygen content therefrom. Sakai further notes that the preservation of meat with the removal of oxygen from the packaging also promotes the growth of lactic acid bacteria which acts to prevent corruption of the meat. See page 1, lines 23–28, page 2, lines 15–30, page 3, lines 1–25 and page 4, lines 6–15 and lines 20–25 of the translation.

Hamon is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize the containment system and activator, as well as the ratios of constituents as

taught in Hamon with the oxygen scavenger of Sakai because it would provide enhanced absorption of oxygen thereby preventing the onslaught of oxidative deterioration of the meat. Sakai teaches reduction of the oxygen concentration within the container to 5% or less within 24 hours and preferably to 0.1% or less in 12 hours and Hamon clearly teaches optimizing the activity of this same oxygen scavenger thus it is held that the enhanced optimization of the scavenger of Sakai with the activator of Hamon would intrinsically provide the activity levels instantly claimed.

**Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai together with Hamon as applied to claims 5, 7, 9 and 13-21 above, and further in view of Graf.**

Neither Sakai nor Hamon specifically disclose the use of deionized water for the water source in activating the oxygen absorber.

Graf is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize deionized water as the water source in the combination of Sakai and Hamon because Graf teaches the recognized effectiveness thereof in oxygen scavenging.

**Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai together with Hamon as applied to claims 5, 7, 9 and 13-21 above, and further in view of McKedy.**

While both Sakai and Hamon teach the use of iron, neither specifically disclose that the iron is electrolytically annealed and reduced.

McKedy '375 is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to utilize electrically annealed and reduced iron as taught in McKedy '375 for the iron of the combination of Sakai and Hamon because of the recognized improvement in oxygen reduction rates provided by electrically annealing and reducing the iron, particularly for the refrigerated storage of foods such as meat.

**Claims 19–25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent No. 3,574,642 to Weinke (hereinafter referred to as “Weinke”) in view of Komatsu, as evidenced by the McKedy declaration.**

Komatsu is applied as set forth above.

Weinke teaches a package for containing raw meats under anaerobic conditions during storage to prevent oxidative deterioration of the meat prior to display for consumer purchase. The package having an inner, gas flushed or evacuated, oxygen-permeable container and an outer, gas flushed or evacuated, oxygen-impermeable container. The inner and outer containers may be provided in a variety of shapes, are each generally made of a polymeric material including PVC or polyethylene for the inner container, and can be heat sealed. Flushing can be performed with an inert gas such as nitrogen. The inner container can clearly be removed from the outer container without destroying the inner container. See particularly the abstract, column 1, lines 6570, column 2, lines 1–40, column 3, lines 5–14 and column 4, lines 20–25. Weinke is silent as to the inclusion of an oxygen scavenger in the outer package.

It would have been obvious to one of ordinary skill in the art to include an oxygen scavenger as

taught in Komatsu between the inner and outer containers of Weinke because it would enhance the protection provided by the inert gas flushing of Weinke by absorbing any residual oxygen present with the enhanced action of the scavenger preventing the onslaught of oxidative deterioration of the meat. The McKedy declaration presents test data that an oxygen absorbent having the parameters set forth in Example 3 of Komatsu inherently meets the functional limitations regarding absorbent capacity set forth claims of the '195 patent.

**Claims 19–25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinke in view of Yoshikawa '503, as evidenced by the McKedy declaration.** Weinke and Yoshikawa '503 are applied as set forth above.

It would have been obvious to one of ordinary skill in the art to include an oxygen scavenger as taught in Yoshikawa '503 between the inner and outer containers of Weinke because it would enhance the protection provided by the inert gas flushing of Weinke by absorbing any residual oxygen present with the enhanced action of the scavenger preventing the onslaught of oxidative deterioration of the meat. It is noted that Yoshikawa teaches substantially the same invention as that found in Komatsu (and is, in fact, referred to in Komatsu) so the evidence provided by the McKedy declaration is pertinent to Yoshikawa '503 as well. Thus Yoshikawa '503 inherently meets the functional limitations regarding absorbent capacity set forth in the claims of the '195 patent.

**Claims 22–25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai in view of Hamon and Weinke.**

All of Sakai, Hamon and Weinke are applied as set forth above.

It would have been obvious to one of ordinary skill in the art to include an oxygen scavenger as taught in Sakai between the inner and outer containers of Weinke with the enhanced utilization of the activation means taught in Hamon because it would enhance the protection provided by the inert gas flushing of Weinke by absorbing any residual oxygen present with the enhanced action of the scavenger preventing the onslaught of oxidative deterioration of the meat. Sakai teaches reduction of the oxygen concentration within the container to 5% or less within 24 hours and preferably to 0.1% or less in 12 hours and Hamon clearly teaches optimizing the activity of this same oxygen scavenger thus it is held that the enhanced optimization of the scavenger of Sakai with the activator of Hamon would intrinsically provide the activity levels instantly claimed.

### ***Response to Arguments***

Patent Owner first asserts that Hamon fails to disclose, teach or suggest “introducing a liquid oxygen uptake accelerator comprising water directly onto said oxygen absorber...” because Patent Owner asserts that Hamon includes a water-retaining material such as clay, kaolinite or silica gel the composition is “prehydrated” resulting in very little free water. Patent Owner asserts that the presently claimed liquid accelerator (water) is “introduced directly” thus differentiating from Hamon. Notably, the preferred oxygen absorber compositions of the '195 patent include, and in fact claim, the presence of silica gel which is disclosed as water retaining (see column 6, lines 227 and claims 3 and 7). Further, the '195 patent also discloses the same “direct” application of

the liquid accelerator as that in Hamon, namely rupturing a capsule separating the liquid accelerator component from the dry iron component at the time of use (see column 4, lines 27–36 and Fig. 2a of the '195 patent and page 1, lines 40–44 and 54–58 and page 2, lines 21–22 and 28–29 of Hamon). Thus Hamon clearly meets all the claim limitation including “introducing a liquid oxygen uptake accelerator comprising water directly onto said oxygen absorber...”.

Patent Owner further argues that one of ordinary skill in the art would not reasonably expect the oxygen absorber of Hamon to function effectively with retail cuts of raw meat because Hamon does not specifically recite use with retail cuts of raw meat, but merely oxygen sensitive foods such as dried fish, pastries, mayonnaise, fruit and powder solutions. Notably none of the original claims were limited to applications of retail cuts of raw meat. Hamon discloses an oxygen absorber with the claimed amounts of the same components as that in the '195 patent. Hamon also specifically notes that the direct application of the liquid accelerator component immediately prior to use facilitated more rapid oxygen uptake. Clearly Hamon inherently meets all of the limitations of the original claims as set forth in the rejection and thus would also have inherently functioned as claimed with respect to retail cuts of raw meat. The rejection of those new claims specifically requiring use of the oxygen absorber with retail cuts of raw meat are properly rejected with a combination of Hamon and Sakai. Clearly given the teachings of Sakai, fresh red meat is well-recognized in the art as an oxygen-sensitive food product. Further, Sakai also explicitly addresses the desire for “blooming” associated with such packaging and oxygen control.

Hamon and the combination of Sakai and Hamon clearly and properly meet the claimed limitation of both the original '195 patent claims and those added with the recent amendment.

Patent Owner disputes the applicability of the McKedy declaration as evidence of inherency for Komatsu and Yoshikawa '503. Patent Owner asserts that the declaration is flawed because the declaration states an experiment was conducted in accordance with Example 3, Run 2 of Komatsu yet iron with 0.5% sulfur was not used in the experiment as listed in Example 3, Run 2 of Komatsu. Patent Owner goes on to assert that as such, the experiment in the McKedy declaration does not accurately follow Komatsu and cannot be relied upon because it is missing an element stated by Komatsu to be "critical". The declaration is silent as to the presence of sulfur in the iron, however, the criticality of the sulfur is specific to the generation of hydrogen during the oxygen scavenging reaction. Komatsu notes that a goal of the invention is to minimize or eliminate hydrogen generation during oxygen absorption and that the addition of sulfur to a known scavenging composition limits the risk of hydrogen evolution.

Komatsu makes it clear that the sulfur is critical only for the aspect of suppressing hydrogen evolution, not for the oxygen absorbing ability of the composition and in fact, notes that if too much sulfur is present it has a detrimental effect on the oxygen absorption. See column 1, line 64 through column 2, line 37. The McKedy declaration is silent regarding the presence or absence of sulfur in the iron. Given that the sulfur in the composition of Komatsu is critical only to hydrogen suppression and not the oxygen absorption, it is maintained that the experiment of

the McKedy declaration, whether sulfur was present or not, is an accurate demonstration of the oxygen absorbing capability of the composition disclosed in Komatsu and Yoshikawa '503 as well.

Patent Owner further disputes the application of the McKedy declaration because Example 3 of Komatsu places a “sanitary cotton impregnated with 10 ml of water” into an enclosed volume with the packet containing the oxygen absorbing composition but the McKedy declaration does not place anything in the enclosed volume with the oxygen absorbing packet. Patent Owner asserts that the McKedy declaration does not properly provide evidence regarding Komatsu because the experiment of the declaration does not follow the steps of Example 3 exactly. However, the experiment of the McKedy declaration is not a test of the procedure of Example 3, but instead is a test of the oxygen absorbing properties of the composition of Example 3, Run 2 in a refrigerated environment (see Item 6, of the declaration). Komatsu’s inclusion of the water-impregnated cotton is irrelevant to the test of the composition of Example 3, Run 2 performed by McKedy. The test results of McKedy clearly and properly provide evidence of the inherency of the claimed oxygen absorbing capabilities of the composition of Komatsu and Yoshikawa '503 as well.

Patent Owner also argues that the experiment of the McKedy declaration does not use the same material to contain the composition. Komatsu uses a perforated polyethylene film laminated paper bag to contain the composition while the McKedy declaration uses a Tyvek® packet which is generally an oxygen permeable polyethylene material. The Patent Owner does not present any arguments as to how the

material difference would have affected the results arrived at by McKedy. Both materials are polyethylene, both are oxygen permeable whether from perforation or as an intrinsic property of the material. Patent Owner fails to provide any evidence that the packet material has any bearing on the oxygen absorbing capabilities of the composition tested.

Finally, Patent Owner argues that the amounts of ingredients in the composition used in the McKedy declaration were not the same as those recited in Example 3, Run 2 of Komatsu and thus do not accurately represent the composition set forth therein. The McKedy declaration clearly states that the ingredients of the tested composition are provided in accordance with the ratios disclosed in Komatsu (item 8 of the declaration). Komatsu specifically notes that the invention is not limited to the specific amounts of components recited in the examples but that the percentages or parts by weight of each component should be used to formulate effective compositions. Thus the McKedy declaration properly represents the teachings of Komatsu in testing a composition formed of components in the ratios disclosed therein. See Komatsu column 3, lines 525 and lines 30–35, column 4, lines 5–10 and column 5, lines 29–35. The McKedy declaration is held to properly provide evidence of the inherency of the claimed oxygen absorbing capabilities for the compositions of both Komatsu and Yoshikawa '503.

Patent Owner further asserts that Komatsu and Yoshikawa '503 as evidenced by the McKedy declaration do not properly raise substantial new questions of patentability (SNQ) as to claim 1–9 of the '195 patent. However, the test data provided by the McKedy declaration clearly presents a new light in which to

view the compositions of both Komatsu and Yoshikawa '503 by showing explicit evidence of the inherency of the claimed oxygen absorbing capabilities for the compositions of Komatsu and Yoshikawa '503.

Patent Owner further argues the combinations of Komatsu or Yoshikawa '503 and Hamon as applied to claim 1 asserting that the combination does not meet the claimed limitations for the reasons asserted with respect to each of Komatsu,

Yoshikawa '503 and Hamon individually above. As noted above, the applications of Komatsu and Yoshikawa as evidenced by the McKedy declaration are proper and support the inherency of the claimed oxygen absorber characteristics in that set forth in Komatsu and Yoshikawa '503. Also noted above, Hamon specifically discloses the direct application of the liquid accelerator in that same manner as disclosed in the '195 patent. The combinations of Komatsu or Yoshikawa '503 and Hamon are proper and meet the claimed limitations.

Patent Owner further asserts secondary considerations such as long-felt need, copying, commercial success and unexpected results. Patent Owner asserts the existence of a long-felt need in the art for a means to obtain consistent "blooming" in retail cuts of pigment-sensitive raw meats as detailed in the DelDuca declaration, and that Pactiv's modified atmosphere packages, systems and methods address this need. The Del Duca declaration state that the Pactiv ActiveTech® meat packaging system and processes are "examples that would be covered by independent claims 1, 5, 15, 19, 22 and 24" of the '195 patent, however, no factual evidence is supplied to support that statement or that such ActiveTech® products satisfied a long-felt, unsolved need. As pointed

out above, Sakai explicitly discloses the desire to obtain blooming as discussed in the Del Duca declaration and provides evidence of the achievement of that blooming in the test results noting that the samples recovered their fresh red color (page 6, lines 17–18 of the translation). Thus Patent Owner’s assertion of addressing long-felt need is unsubstantiated and not persuasive in overcoming the rejections of record.

Patent Owner also asserts the existence of copying by alleging that at least one company “is making, using, selling and offering for sale products that use the systems, products and/or methods described in the present invention”. Patent Owner fails to provide any probative evidence supporting this assertion, but merely refers to an exhibit of the infringement complaint filed against those companies by Pactiv which itself is insufficient to establish evidence of copying. Patent Owner has not provided any factual evidence that the alleged copies are identical to the claimed invention, nor that the allegedly copying companies expended efforts to develop their own products prior to resorting to copying. The assertion of copying is not persuasive in overcoming the rejections of record.

Patent Owner also asserts the existence of unexpected results through the DelDuca declaration which refers to test results recited in related U.S. patent No. 5,928,560 (the ’560 patent) as supporting unexpected results for the claimed invention of the ’195 patent. The test results referred to, show enhanced activity of a commercially available oxygen scavenger when activated with the addition of water or another accelerator immediately prior to use versus that which is not activated. The teachings of both GB ’853 and Hamon contradict the unexpectedness of the test results of the ’560 patent because each ex-

plicitly disclosed enhanced activity of an oxygen scavenger with the addition of an activating agent such as water immediately prior to use as detailed in the rejections of record and above. Patent Owner's assertion of unexpected results is not persuasive in overcoming the rejections of record.

Finally, Patent Owner asserts the existence of commercial success by stating that the "biggest protein processors in the U.S. in partnership with the biggest retailers have relied on Pactiv's ActiveTech® meat packages, systems and processes of the same". The statement is not accompanied by objective evidence establishing a nexus between the ActiveTech® products and the claimed invention, or evidence that any alleged success is attributable to claimed invention. Patent Owner's assertion of commercial success is not persuasive in overcoming the pending rejections.

Patent Owner argues that the combination of Sakai and Hamon is improper because the rejection is not properly suggested or supported by the prior art. Patent Owner alleges through the declaration of Gary DelDuca filed with the remarks, that the test results provided in Fig. 1 of Sakai are actually undesirable because they indicate metmyoglobin levels at 96% on day 1 and thus would not lead one of ordinary skill in the art to utilize the oxygen scavenger therein. Patent Owner fails to note that the metmyoglobin levels *decreased* as the test progressed and the oxygen levels were clearly shown within the range instantly claimed (of note, the '195 patent does not claim any specific metmyoglobin levels), thus it is unclear how the reported results would be deemed "undesirable". In fact, the discussion of the test results states that the samples recovered their fresh

red color (i.e. “bloomed”) when opened, just as discussed in the DelDuca declarations as being highly desirable and as now claimed in a number of the newly added claims (see page 6, lines 17–18 of the Sakai translation).

Patent Owner further acknowledges that Hamon mentions food products that will degrade in contact with oxygen and recites some of the examples listed in Hamon such as dried fish, pastries, mayonnaise, etc. However, Patent Owner asserts that such products have nothing to do with the present invention and thus Hamon is non-analogous and not properly combinable with Sakai. Sakai and the '195 patent are both directed to protective packaging for oxygen-sensitive retail cuts of fresh red meat, a food product. It is unclear how Hamon's goal of protecting oxygen-sensitive food products from oxidative deterioration could possibly be non-analogous merely because Hamon does not specifically recite “fresh red meat” in a list of possible food products to be addressed. Clearly given the teachings of Sakai, fresh red meat is well-recognized in the art as an oxygen-sensitive food product. Further, Sakai explicitly addresses the desire for “blooming” associated with such packaging and oxygen control.

**Supplement Amendment and Response filed  
11/12/2012**

The Supplement Amendment and Response filed 11/12/2012 will **not** be entered as it does not comply with 37 CFR 1.111 (a)(2). The Supplement response was not filed within a period during which action by the Office was suspended under § 1.103(a) or (c) which would warrant thereof. A supplemental response will not be entered as a matter of right, but may be entered in instances limited to (A) cancella-

tion of claim(s); (B) adoption of examiner suggestion(s); (C) placement of the application in condition for allowance; (D) reply to an office requirement made after the first reply was filed; (E) correction of informalities; or (F) simplification of issues for appeal. The supplemental response was filed 11/12/2012 to provide a discussion by Patent Owner of the recent *Belkin Intl Inc. v. Kappos*, 104 U.S.P.Q. 2d 1348 (Fed. Cir. 2012) as Patent Owner sees it relating to the instant case, the supplemental response does not follow any of the specific instances listed above for entry and as such the supplemental response of 11/12/2012 will **not** be entered.

#### **Confirmed Claim**

Claim 10 stands confirmed as noted in the FAOM mailed 3/22/2012. The closest prior art of record, namely U.S. patent No. 5,242,111 to Nakoneczny et al., (hereinafter “Nakoneczny”) fails to clearly teach or suggest containment of the oxygen uptake accelerator within a bibulous wick, said wick extending from the exterior of the packet to the interior thereof as required by the language of claim 10. Nakoneczny teaches a configuration for a slow diffuser wherein the liquid to be dispensed is contained in an impermeable package. A wick extends from the interior of the package to the exterior thereof. The liquid to be dispensed is drawn up the wick to the portion outside the package where it will slowly diffuse due to evaporation. All applied references, particularly Hamon, teach the need for rapid, immediate mixing of the mediators/accelerators and the oxygen absorbers upon contact in order to effectively instigate rapid oxygen absorption. The slow diffusion provided by the structure of Nakoneczny would not provide the desired delivery of an accelerator for

immediate and complete dispensing or distribution to the oxygen absorbing composition thus one of ordinary skill in the art would not reasonably configure the oxygen uptake accelerator with the structure taught in Nakoneczny.

### ***Conclusion***

#### ***Duty of Disclosure***

The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 6,395,195 throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

#### ***Service of Papers***

After the filing of a request for reexamination by a third party requester, any document filed by either the patent owner or the third party requester must be served on the other party (or parties where two or more third party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR 1.248. See 37 CFR 1.550(f).

Patent owner's amendment filed 5/18/2012 necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

A shortened statutory period for response to this action is set to expire 2 from the mailing date of this action.

**Extensions of time under 37 CFR 1.136(a) do not apply in reexamination proceedings.** The provisions of 37 CFR 1.136 apply only to “an applicant” and not to parties in a reexamination proceeding. Further, in 35 U.S.C. 305 and in 37 CFR 1.550(a), it is required that reexamination proceedings “will be conducted with special dispatch within the Office.”

**Extensions of time in reexamination proceedings are provided for in 37 CFR 1.550(c).** A request for extension of time must be filed on or before the day on which a response to this action is due, and it must be accompanied by the petition fee set forth in 37 CFR 1.17(g). The mere filing of a request will not effect any extension of time. An extension of time will be granted only for sufficient cause, and for a reasonable time specified.

The filing of a timely first response to this final rejection will be construed as including a request to extend the shortened statutory period for an additional month, which will be granted even if previous extensions have been granted. In no event, however, will the statutory period for response expire later than SIX MONTHS from the mailing date of the final action. See MPEP § 2265.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krisanne Jastrzab whose telephone number is 571-272-1279. The examiner can normally be reached on Mon.-Thurs. 6:00am–4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Stephen Stein can be reached on 571-272-1544

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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**APPENDIX J**  
**PATENT AND TRADEMARK OFFICE**  
**ORDER GRANTING / DENYING REQUEST FOR**  
**EX PARTE REEXAMINATION**

The request for *ex parte* reexamination filed 24 March 2011 has been considered and a determination has been made. An identification of the claims, the references relied upon, and the rationale supporting the determination are attached.

The request for *ex parte* reexamination is  
**GRANTED.**

Reexamination Control 90/011,596  
Patent Under Reexamination: 6315921  
Art Unit 3991

MAIL DATE  
June 4, 2011

KRISANNE JASTRZAB, Patent and Trademark  
Office Examiner.

***Reexamination***

**Status of the Proceeding**

A substantial new question of patentability affecting claims 1–12 of United States Patent Number

6,315,921 (hereinafter referred to as “the ’921 patent”) is raised by the request for *ex parte* reexamination.

The above substantial new question is based on patents and/or printed publications already cited/considered in an earlier concluded examination of the patent being reexamined. On November 2, 2002, Public Law 107-273 was enacted. Title III, Subtitle A, Section 13105, part (a) of the Act revised the reexamination statute by adding the following new last sentence to 35 U.S.C. 303(a) and 312(a):

“The existence of a substantial new question of patentability is not precluded by the fact that a patent or printed publication was previously cited by or to the Office or considered by the Office.”

For any reexamination ordered on or after November 2, 2002, the effective date of the statutory revision, reliance on previously cited/considered art, i.e., “old art,” does not necessarily preclude the existence of a substantial new question of patentability (SNQ) that is based exclusively on that old art. Rather, determinations on whether a SNQ exists in such an instance shall be based upon a fact-specific inquiry done on a case-by-case basis.

In the present instance, there exists a SNQ based solely on U.S. patent No. 4,166,807 to Komatsu et al., (hereinafter referred to as “Komatsu”) and U.S. patent No. 4,127,503 to Yoshikawa et al., (hereinafter referred to as “Yoshikawa ’503”). A discussion of the specifics now follows:

#### **Substantial New Question (SNQ)**

**The request indicates that Requester considers Komatsu, as evidenced by the declara-**

**tion of George McKedy, as raising a substantial new question of patentability as to claims 1–12 of the '921 patent.**

It is agreed that consideration of Komatsu as evidenced by the McKedy declaration raises an SNQ as to claims 1–12 of the '921 patent. Komatsu teaches an oxygen absorbent for the preservation of foodstuffs including meat. The absorbent utilized iron and a metal halide as well as a particular amount of water to achieve optimized absorption rates. See particularly column 1, lines 5–10 and lines 63–65, column 3, lines 25–35 and Example 3.

The McKedy declaration presents test data that an oxygen absorbent having the parameters set forth in Example 3 of Komatsu meets the functional limitations regarding absorbent capacity set forth in the independent claims 1 and 8 of the '921 patent.

It is noted that Table 6 of Komatsu refers to the presence of “N<sub>2</sub>O” nitrous oxide or “laughing gas”, however, it is clear from a complete reading of the Komatsu patent, particularly Example 3, that the “N<sub>2</sub>O” was recited in error and in fact, should be H<sub>2</sub>O.

The teachings of Komatsu, as evidenced by McKedy, were not present in the prosecution of the application which became the '921 patent. Further, there is a substantial likelihood that a reasonable examiner would consider these teachings important in deciding whether or not these claims are patentable. Accordingly, Komatsu as evidenced by the McKedy declaration raises a substantial new question as to claims 1–12 of the '921 patent, which question has not been decided in a previous examination of the '921 patent.

**The request indicates that Requester considers Yoshikawa '503 as raising a substantial new question of patentability as to claims 1–12 of the '921 patent.**

It is agreed that consideration of Yoshikawa '503 raises an SNQ as to claims 112 of the '921 patent. Yoshikawa '503 teaches an oxygen absorbent for the preservation of foodstuffs including meat. The absorbent utilized iron and a metal halide as well as a particular amount of water to achieve optimized absorption rates. See particularly column 1, lines 5–10, column 4, line 65 through column 5, line 3 and Comparative Example 2.

It is noted that Yoshikawa '503 teaches substantially the same invention as that found in Komatsu (and is, in fact, referred to in Komatsu) so the evidence provided by the McKedy declaration is pertinent to Yoshikawa '503 as well.

The teachings of Yoshikawa '503, as evidenced by the McKedy declaration, were not present in the prosecution of the application which became the '921 patent. Further, there is a substantial likelihood that a reasonable examiner would consider these teachings important in deciding whether or not these claims are patentable.

Accordingly, Yoshikawa '503 as evidenced by the McKedy declaration raises a substantial new question as to claims 1–12 of the '921 patent, which question has not been decided in a previous examination of the '921 patent.

**The request indicates that Requester considers U.S. patent No. 4,113, 652 to Yoshikawa et al., (hereinafter referred to as “Yoshikawa '652”) in view of U.S. patent No. 5,262,375 to**

**McKedy (hereinafter referred to as “McKedy”) as raising a substantial new question of patentability as to claims 1–12 of the ’921 patent.**

It is agreed that consideration of Yoshikawa ’652 in view of McKedy raises an SNQ as to claims 1–12 of the ’921 patent. Yoshikawa ’652 teaches an oxygen absorbent for the preservation of foodstuffs including meat. The absorbent utilized iron as well as a particular amount of water to achieve optimized absorption rates. See particularly column 1, lines 5–15, column 3, lines 1–35.

McKedy teaches an oxygen absorber for use at lower temperatures appropriate for food\_storage. The absorber includes particulate iron and a salt, the salt, when combined with water will form an electrolyte to activate the iron for oxygen absorption. The absorber is supplied in an oxygen permeable packet form. See particularly, column 2, lines 20–26 and column 3, lines 9–60.

The teachings of Yoshikawa ’652 in view of McKedy were not present in the prosecution of the application which became the ’921 patent. Further, there is a substantial likelihood that a reasonable examiner would consider these teachings important in deciding whether or not these claims are patentable. Accordingly, Yoshikawa ’652 in view of McKedy raises a substantial new question as to claims 1–12 of the ’921 patent, which question has not been decided in a previous examination of the ’921 patent.

#### **Duty of Disclosure**

The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 6,315,921

throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

### ***Service of Papers***

After the filing of a request for reexamination by a third party requester, any document filed by either the patent owner or the third party requester must be served on the other party (or parties where two or more third party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR 1.248. See 37 CFR 1.550(f).

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krisanne Jastrzab whose telephone number is 571-272-1279. The examiner can normally be reached on Mon.–Thurs. 6:00am–4:30pm.

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tronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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**APPENDIX K**  
**PATENT AND TRADEMARK OFFICE**  
**ORDER GRANTING / DENYING REQUEST FOR**  
**EX PARTE REEXAMINATION**

The request for *ex parte* reexamination filed 24 March 2011 has been considered and a determination has been made. An identification of the claims, the references relied upon, and the rationale supporting the determination are attached.

The request for *ex parte* reexamination is  
**GRANTED.**

Reexamination Control 90/011,597  
Patent Under Reexamination: EVANS ET AL.  
Art Unit 3991

MAIL DATE  
June 4, 2011

KRISANNE JASTRZAB, Patent and Trademark  
Office Examiner.

***Reexamination***

A substantial new question of patentability affecting claims 1-10 of United States Patent Number 6,395,195 (hereinafter referred to as “the ’195 pa-

tent”) is raised by the request for *ex parte* reexamination.

The above substantial new question is based on patents and/or printed publications already cited/considered in an earlier concluded examination of the patent being reexamined. On November 2, 2002, Public Law 107-273 was enacted. Title III, Subtitle A, Section 13105, part (a) of the Act revised the reexamination statute by adding the following new last sentence to 35 U.S.C. 303(a) and 312(a):

“The existence of a substantial new question of patentability is not precluded by the fact that a patent or printed publication was previously cited by or to the Office or considered by the Office.”

For any reexamination ordered on or after November 2, 2002, the effective date of the statutory revision, reliance on previously cited/considered art, i.e., “old art,” does not necessarily preclude the existence of a substantial new question of patentability (SNQ) that is based exclusively on that old art. Rather, determinations on whether a SNQ exists in such an instance shall be based upon a fact-specific inquiry done on a case-by-case basis.

In the present instance, there exists a SNQ based solely on U.S. patent No. 4,166,807 to Komatsu et al., (hereinafter referred to as “Komatsu”) and U.S. patent No. 4,127,503 to Yoshikawa et al., (hereinafter referred to as “Yoshikawa ’503”). A discussion of the specifics now follows:

#### **Substantial New Question (SNQ)**

**The request indicates that Requester considers Komatsu, as evidenced by the declaration of George McKedy, as raising a substantial**

**new question of patentability as to claims 1–10 of the '195 patent.**

It is agreed that consideration of Komatsu as evidenced by the McKedy declaration raises an SNQ as to claims 1–10 of the '195 patent. Komatsu teaches an oxygen absorbent for the preservation of food-stuffs including meat. The absorbent utilized iron and a metal halide as well as a particular amount of water to achieve optimized absorption rates. Komatsu teaches ratios of water (accelerator) to iron as claimed in the '195 patent. See particularly column 1, lines 5–10 and lines 63–65, column 3, lines 25–35 and Example 3.

The McKedy declaration presents test data that an oxygen absorbent having the parameters set forth in Example 3 of Komatsu meets the functional limitations regarding absorbent capacity set forth in the independent claims 1 and 5 of the '195 patent.

It is noted that Table 6 of Komatsu refers to the presence of “N<sub>2</sub>O” nitrous oxide or “laughing gas”, however, it is clear from a complete reading of the Komatsu patent, particularly Example 3, that the “N<sub>2</sub>O” was recited in error and in fact, should be H<sub>2</sub>O.

The teachings of Komatsu, as evidenced by McKedy, were not present in the prosecution of the application which became the '195 patent. Further, there is a substantial likelihood that a reasonable examiner would consider these teachings important in deciding whether or not these claims are patentable. Accordingly, Komatsu as evidenced by the McKedy declaration raises a substantial new question as to claims 1–10 of the '195 patent, which question has not been decided in a previous examination of the '195 patent.

**The request indicates that Requester considers Yoshikawa '503 as raising a substantial new question of patentability as to claims 1–10 of the 1 95 patent.**

It is agreed that consideration of Yoshikawa '503 raises an SNQ as to claims 110 of the '195 patent. Yoshikawa '503 teaches an oxygen absorbent for the preservation of foodstuffs including meat. The absorbent utilized iron and a metal halide as well as a particular amount of water to achieve optimized absorption rates. Yoshikawa '503 teaches ratios of water (accelerator) to iron as claimed in the '195 patent. See particularly column 1, lines 5–10, column 4, line 65 through column 5, line 3 and Comparative Example 2.

It is noted that Yoshikawa '503 teaches substantially the same invention as that found in Komatsu (and is, in fact, referred to in Komatsu) so the evidence provided by the McKedy declaration is pertinent to Yoshikawa '503 as well.

The teachings of Yoshikawa '503, as evidenced by the McKedy declaration, were not present in the prosecution of the application which became the '195 patent. Further, there is a substantial likelihood that a reasonable examiner would consider these teachings important in deciding whether or not these claims are patentable.

Accordingly, Yoshikawa '503 as evidenced by the McKedy declaration raises a substantial new question as to claims 1–10 of the 195 patent, which question has not been decided in a previous examination of the '195 patent.

**The request indicates that Requester considers U.S. patent No. 4,113, 652 to Yoshikawa**

**et al., (hereinafter referred to as “Yoshikawa ’652”) in view of U.S. patent No. 5,262,375 to McKedy (hereinafter referred to as “McKedy”) as raising a substantial new question of patentability as to claims 1–10 of the ’195 patent.**

It is agreed that consideration of Yoshikawa ’652 in view of McKedy raises an SNQ as to claims 1–10 of the ’195 patent. Yoshikawa ’652 teaches an oxygen absorbent for the preservation of foodstuffs including meat. The absorbent utilized iron as well as a particular amount of water to achieve optimized absorption rates. Yoshikawa ’652 teaches ratios of water (accelerator) to iron as claimed in the ’195 patent. See particularly column 1, lines 5–15, column 3, lines 1–35.

McKedy teaches an oxygen absorber for use at lower temperatures appropriate for food storage. The absorber includes particulate iron and a salt, the salt, when combined with water will form an electrolyte to activate the iron for oxygen absorption. The absorber is supplied in an oxygen permeable packet form. See particularly, column 2, lines 20–26 and column 3, lines 9–60.

The teachings of Yoshikawa ’652 in view of McKedy were not present in the prosecution of the application which became the ’195 patent. Further, there is a substantial likelihood that a reasonable examiner would consider these teachings important in deciding whether or not these claims are patentable. Accordingly, Yoshikawa ’652 in view of McKedy raises a substantial new question as to claims 1–10 of the ’195 patent, which question has not been decided in a previous examination of the ’195 patent.

### **Duty of Disclosure**

The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 6,395,195 throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

### ***Service of Papers***

After the filing of a request for reexamination by a third party requester, any document filed by either the patent owner or the third party requester must be served on the other party (or parties where two or more third party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR 1.248. See 37 CFR 1.550(f).

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krisanne Jastrzab whose telephone number is 571-272-1279. The examiner can normally be reached on Mon. –Thurs. 6:00am–4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on 571-272-1535

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**APPENDIX L**  
**IN THE UNITED STATES COURT OF**  
**APPEALS FOR THE FEDERAL CIRCUIT**

Nos. 2015-1457, 2015-1458

In re: PACTIV, LLC  
Appellant.

Appeals from the United States Patent and  
Trademark Office, Patent Trial and Appeal Board

September 23, 2015

**BRIEF FOR APPELLEE – DIRECTOR OF**  
**THE UNITED STATES PATENT AND TRADE-**  
**MARK OFFICE**

*[Excerpted]*

\* \* \*

**B. This Court’s Decision in the Prior Ap-  
peal Forecloses Pactiv’s Arguments**

Pactiv’s prior appeal to this Court concerned five related patents, which Pactiv conceded are not patentably distinct from the two patents at issue in this appeal. A536; A637; A1398; A1498. In the prior appeal, Pactiv made the very same arguments that it makes here. Specifically, Pactiv argued that *Belkin* precludes the Examiner from making a rejection in a

first (or later) Office action that is based on a prior art reference, or combination of references, that is not found to raise an SNQ in the Examiner's order granting reexamination. A2157-75; *see* Br. at 27-52. By declining to reverse any of the Examiner's rejections in that appeal, this Court soundly rejected that interpretation of *Belkin*.

Also, in the prior appeal, Pactiv made the same arguments regarding Sakai, GB853, and Hamon that it makes in this appeal. In particular, Pactiv attempted to discredit Sakai's statements that meat bloomed a bright red color as inconsistent with the data in Table 1 and fundamental laws of chemistry. A2177-83; *see* Br. at 54-61. Pactiv also argued that it was improper to combine GB853 or Hamon because they are nonanalogous art. A2183-88; *see* Br. at 61-67. Finally, Pactiv made the same arguments—relying on the very same evidence—for unexpected results, long-felt need, and commercial success. A2193-99; *see* Br. at 67-73. This Court necessarily rejected those arguments in affirming the Examiner's obviousness rejections based on those references.

Pactiv should not be permitted to make these same arguments again in this appeal. Collateral estoppel bars a party from relitigating an issue of fact or law that was decided in an earlier case and was necessary to the judgment. *Allen v. McCurry*, 449 U.S. 90, 94 (1980). The rationale underlying the doctrine is to “relieve parties of the cost and vexation of multiple lawsuits, conserve judicial resources, and, by preventing inconsistent decisions, encourage reliance on adjudication.” *Id.* Here, each of the arguments outlined above was necessarily decided against Pactiv by the Rule 36 affirmance. *See Rates Tech., Inc. v. Mediatrix Telecom, Inc.*, 688 F.3d 742,

750 (Fed. Cir. 2012) (providing that Rule 36 dispositions may be cited to establish issue or claim preclusion). Had Pactiv prevailed on any of the asserted grounds, this Court would have reversed one or more rejections of record and remanded to the Board. *Cf. TecSec, Inc. v. IBM Corp.*, 731 F.3d 1336, 1341-44 (Fed. Cir. 2013) (neither collateral estoppel nor mandate rule barred claim construction argument where court's summary affirmance did not "expressly or by necessary implication" decide the issue in prior appeal). Pactiv should not be permitted to waste judicial resources and cause the government to incur unnecessary costs to defend against repeat litigation on issues that this Court has already resolved. Therefore, Pactiv's appeal should be dismissed.