



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
**United States Patent and Trademark Office**  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/378,082	12/14/2011	Martin Karches	390441US99PCT	4556
22850	7590	12/27/2019	EXAMINER	
OBLON, MCCLELLAND, MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			NGUYEN, NGOC YEN M	
			ART UNIT	PAPER NUMBER
			1734	
			NOTIFICATION DATE	DELIVERY MODE
			12/27/2019	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OBLONPAT@OBLON.COM  
iahmadi@oblon.com  
patentdocket@oblon.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* MARTIN KARCHES,  
KATI BACHMANN, MARTIN SESING,  
LOTHAR SEIDEMANN,  
and KNUD JACOBSEN

---

Appeal 2018-003176  
Application 13/378,082  
Technology Center 1700

---

Before ADRIENE LEPIANE HANLON, CATHERINE Q. TIMM, and  
N. WHITNEY WILSON, *Administrative Patent Judges*.

HANLON, *Administrative Patent Judge*.

DECISION ON APPEAL

A. STATEMENT OF THE CASE

The Appellant<sup>1</sup> filed an appeal under 35 U.S.C. § 134(a) from an Examiner's decision rejecting claims 1–3, 5–13, 17, and 18 under 35 U.S.C. § 103(a) as

---

<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as BASF SE. Appeal Brief dated August 29, 2017 (“App. Br.”), at 2.

unpatentable over Walsdorff et al.<sup>2</sup> in view of the admitted prior art<sup>3</sup> and Fogler,<sup>4</sup> and optionally further in view of Hibi et al.<sup>5</sup> We have jurisdiction under 35 U.S.C. § 6(b). A hearing was held on August 29, 2019.

We AFFIRM-IN-PART.

The claims on appeal are directed to a process for preparing chlorine by reacting hydrogen chloride and oxygen in a fluidized-bed reactor. In a first heating phase, the fluidized-bed reactor is heated by introducing hot nitrogen into the reactor and circulating a heat transfer medium in a heat exchanger. Next, hydrogen chloride and oxygen are fed into the reactor and reacted with one another, thereby heating the reactor in a second heating phase. In a subsequent operating phase, hydrogen chloride is further reacted in the reactor with oxygen in the presence of a particulate catalyst.

Independent claim 1 is reproduced below from the Claims Appendix to the Appeal Brief.

1. A process for preparing chlorine, the process comprising:  
introducing hot nitrogen into a fluidized-bed reactor to heat the fluidized-bed reactor to a first temperature in a first heating phase;  
feeding hydrogen chloride and oxygen into the fluidized-bed reactor and reacting the hydrogen chloride and oxygen, thereby heating the fluidized-bed reactor to an operating temperature of from 350 to 420°C in a second heating phase;  
further reacting hydrogen chloride with oxygen in the presence of a particulate catalyst in the fluidized-bed reactor at the operating temperature in an operating phase; and

---

<sup>2</sup> US 2007/0202035 A1, published August 30, 2007 (“Walsdorff”).

<sup>3</sup> Spec. 1.

<sup>4</sup> H. Scott Fogler, Catalyst decay *in* Elements of Chemical Reaction Engineering 1–30 (4<sup>th</sup> ed., Pearson Education, Inc. 2006) (“Fogler”).

<sup>5</sup> US 2002/0028173 A1, published March 7, 2002 (“Hibi”).

circulating water in a tube of a shell-and-tube heat exchanger to remove heat from the fluidized-bed reactor,

wherein:

the first temperature is below the operating temperature;

the operating temperature is increased during the operating phase to counter a decrease in HCl conversion due to progressive deactivation of the particulate catalyst;

the first heating phase occurs before the hydrochloric acid and oxygen are introduced into the fluidized-bed reactor; and

the first heating phase further comprises circulating a heat transfer medium in the tube of the shell-and-tube heat exchanger to heat the shell-and-tube heat exchanger, thereby heating the fluidized-bed reactor.

App. Br. 22.

B. DISCUSSION

1. Claim 1

Claim 1 recites a process for preparing chlorine by reacting hydrogen chloride and oxygen in a fluidized-bed reactor. A first heating phase in the claimed process comprises heating the fluidized-bed reactor by introducing hot nitrogen into the reactor *and* circulating a heat transfer medium in a heat exchanger. Once the fluidized-bed reactor is heated to the claimed “first temperature,” hydrogen chloride and oxygen are fed into the reactor. *See* App. Br. 22; *see also* App. Br. 4 (contending that claim 1 requires “‘a first heating phase’ in which both ‘hot nitrogen’ and a ‘heat transfer medium’ are used to pre-heat the fluidized-bed reactor to a ‘*first temperature*’” (emphasis added)).

The Examiner finds Walsdorff discloses a process for producing chlorine from hydrogen chloride and oxygen in a fluidized-bed reactor. Non-Final Act. 3.<sup>6</sup>

---

<sup>6</sup> Non-Final Office Action dated April 6, 2017.

The Examiner finds, and the Appellant does not dispute, that a heat exchanger can be used to heat the fluidized-bed before the reaction gases are introduced. Non-Final Act. 4–5, 9–10; *see also* App. Br. 10 (recognizing Walsdorff teaches circulating a heat transfer medium through a heat exchanger to heat the fluidized-bed).

The Examiner finds Walsdorff does not disclose using hot nitrogen gas in combination with the heat transfer medium to heat the fluidized-bed as recited in claim 1. Non-Final Act. 7. The Examiner, however, finds “the admitted prior art on page 1 [of the Appellant’s Specification] discloses that the heating up of a fluidized[-]bed reactor in the start-up phase is usually effected by feeding in a preheated inert gas stream, in general nitrogen.” Non-Final Act. 7.

The Examiner concludes that it would have been obvious to one of ordinary skill in the art to use hot nitrogen gas to heat up the fluidized-bed in Walsdorff’s process “because such use is known in the art.” Non-Final Act. 7 (citing Spec. 1). The Examiner continues:

Since Walsdorff ‘035 discloses that the heat transfer media can be used both for introducing heat and for removing heat from the fluidized[-]bed (note paragraph [0042]) and the admitted prior art discloses that nitrogen can be used to preheat the fluidized[-]bed, these two methods are considered as analogous methods *for preheating the fluidized[-]bed*. Combining equivalents known for the same purpose, i.e. using both the heat exchanger using the heat transfer media as disclosed in Walsdorff ‘035 and the hot nitrogen as suggested by the admitted prior art to heat up the fluidized[-]bed in Walsdorff ‘035, would have been obvious to one skilled in the art (note MPEP 2144.06).

Non-Final Act. 8 (emphasis added).

The Appellant argues that

given that Walsdorff does not disclose the use of hot nitrogen for pre-heating the reactor, and the background of the specification does not disclose that hot nitrogen and a heat transfer medium (i.e., steam) are equivalent methods for pre-heating a reactor, the Examiner cannot rely on the legal precedents cited in Section 2144.06 of the [MPEP].

App. Br. 12.

The Appellant's argument is not persuasive of reversible error. It is of no moment in the obviousness rejection on appeal that a single prior art reference does not disclose that both a heat transfer medium and hot nitrogen are useful for preheating a fluidized-bed. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (the test for obviousness is not whether the claimed invention is expressly suggested in any one or all of the references; rather, the test for obviousness is what the *combined* teachings of the references would have suggested to one of ordinary skill in the art); *see also Syntex (U.S.A.) LLC v. Apotex, Inc.*, 407 F.3d 1371, 1380 (Fed. Cir. 2005) ("prior art references that are capable of rendering an invention obvious under a section 103 analysis are not limited to reference[s] that also anticipate").

In this case, Walsdorff suggests that a heat transfer medium is useful for preheating a fluidized-bed in a process for producing chlorine from hydrogen chloride and oxygen. Similarly, the Appellant discloses that hot nitrogen was known to be useful for preheating a fluidized-bed used to produce chlorine from hydrogen chloride and oxygen. Therefore, the Examiner had a reasonable basis to conclude that it would have been obvious to one of ordinary skill in the art to use the combination of a heat transfer medium and hot nitrogen for the very same purpose (i.e., to preheat a fluidized-bed in a process for producing chlorine from hydrogen chloride and oxygen). Ans. 10.<sup>7</sup>

---

<sup>7</sup> Examiner's Answer dated November 30, 2017.

The Appellant contends that page 1, lines 33–39 of the Appellant’s Specification disclose that “when a pre-heated inert gas stream (such as hot nitrogen) is used to heat up a fluidized-bed reactor in a start-up phase, the heat-exchange tubes are blocked so that no heat transfer medium (usually water) is present therein.” App. Br. 12. The Appellant also argues that “[i]f the heat exchangers [of Walsdorff] are supplied with water during pre-heating with hot nitrogen, then steam pulses (sudden vaporization of water in the heat-exchange tubes) can occur—leading to damage to the heat exchanger or even tube rupture.” App. Br. 12 (citing Spec. 2, ll. 7–10).

The Examiner correctly concludes that the Appellant’s claims “do not require that the hot nitrogen gas and the heat exchanger are used simultaneously.” Ans. 15. Moreover, the Examiner explains:

[T]he admitted prior art on page 1 of Appellants’ [sic, Appellant’s] specification does not state why the heat exchanger tubes are blocked. It could be reasonably assumed that the heat transfer medium was not preheated; therefore, it is preferred to block off the heat exchange tubes so that the hot nitrogen would not have to heat up the heat transfer medium in the heat exchanger. However, if the heat transfer medium was preheated, as in the case it would be used to introduce heat to the fluidized[-]bed as disclosed in Walsdorff ‘035, there would be no reason to block off the heat exchange tubes.<sup>[8]</sup>

Ans. 15–16. The Appellant does not offer a response.

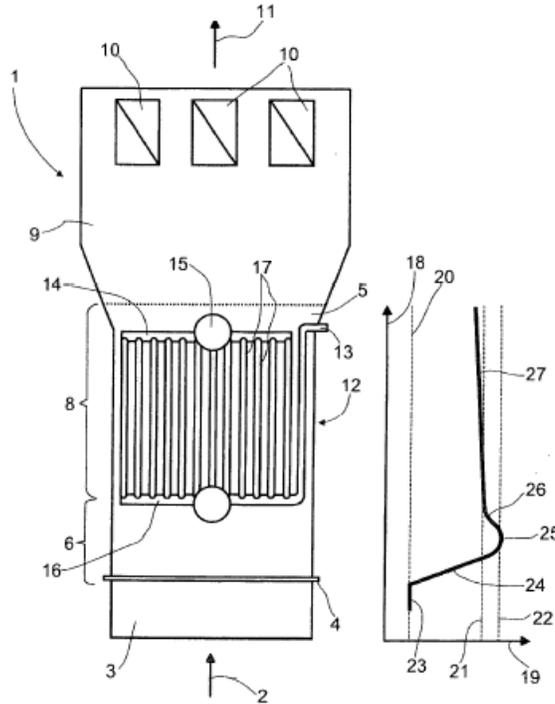
As for the steam pulses referred to by the Appellant, the Examiner finds that “page 2, lines 7–10 of Appellants’ [sic, Appellant’s] specification discloses that if the heat exchangers are supplied with water ‘*only when the desired reactor*

---

<sup>8</sup> See App. Br. 23 (reciting, in claim 6, that hot nitrogen is introduced into the fluidized-bed “*after the circulating of the heat transfer medium*” (emphasis added)).

*temperature of 380°C has been reached*, steam pulses (sudden vaporization of water in the heat-exchange tubes) occur.’” Ans. 16 (emphasis added). The Examiner finds Hibi discloses that “producing chlorine from HCl is preferably carried out at a temperature of 200 to 400°C or 200 to 380°C.” Ans. 16 (citing Hibi ¶ 274). The Examiner finds Walsdorff teaches that it is desirable to start the reaction at lower temperatures (i.e., “closer to 200°C”). Therefore, the Examiner finds “[t]here is no reason to expect steam pulses would occur even if the heat exchanger [were] supplied with water during the pre-heating because the temperature of the pre-heating step would be below . . . 380°C.” Ans. 16. Again, the Appellant does not offer a response.

The Appellant also argues that introducing hot nitrogen to Walsdorff’s reactor during a heating-up phase would have produced a temperature profile contrary to the teachings of Walsdorff. App. Br. 8. The Appellant directs our attention to the temperature profile illustrated in Walsdorff Figure 1, reproduced below.



Walsdorff Figure 1 shows a schematic diagram of a fluidized-bed reactor and the temperature profile in the reactor.

Walsdorff Figure 1 illustrates a first temperature level 20, a second temperature level 21, and a third temperature level 22. Walsdorff discloses:

The feed gases are fed into the windbox 3 of the fluidized-bed reactor 1 at the feed temperature 23. The reaction commences in the fluidized[-]bed 5. Heat is liberated in this reaction. For this reason, the temperature rises in the region of the first temperature zone 6 during a warm-up phase 24 until it reaches the third temperature level 22. After the third temperature level 22 has been reached, a constant temperature 25 is established within the first temperature zone 6 due to the mixing of the fluidized[-]bed 5.

Walsdorff ¶ 58 (emphasis omitted). The Examiner finds that feed temperature 23 (or first temperature level 20) corresponds to the claimed “first temperature” and the temperature range from the second temperature level 21 to the third

temperature level 22 corresponds to the claimed “operating temperature in the second heating phase.” Non-Final Act. 3.

The Appellant argues that

[n]o motivation would have existed to modify the process of Walsdorff to use both hot nitrogen (introduced directly to the fluidized-bed reactor) *and* a heat transfer medium (circulated through the heat exchanger (12) in Figure 1), because hot nitrogen applied to the bottom of the fluidized[-]bed would be expected to increase the “first temperature level” (20)—thereby reducing or eliminating the desired temperature distribution.

App. Br. 10.

In the proposed modification, the Examiner finds that hot nitrogen and the heat transfer medium would preheat Walsdorff’s fluidized-bed to first temperature level 20 illustrated in Walsdorff Figure 1. Ans. 13. After first temperature level 20 is reached, the Examiner finds that the use of hot nitrogen and the heat exchanger to preheat the fluidized-bed would be stopped. Ans. 12; *see also* Ans. 13 (finding that after temperature 20 is reached, “hot nitrogen and heating by the heat exchanger would no longer be required”); Ans. 14 (finding that “hot nitrogen would only be used to raise the temperature of fluidized[-]bed to level ‘20’ (and its use would be discontinued thereafter)”). Therefore, the Examiner finds that the use of hot nitrogen (in combination with the heat transfer medium) would not have resulted in a temperature profile different from the temperature profile illustrated in Walsdorff Figure 1. Ans. 14.

Finally, the Appellant argues that the Examiner reversibly erred in relying on Fogler to establish that it would have been obvious to increase the operating temperature in Walsdorff’s process because Walsdorff teaches that it is advantageous to decrease the operating temperature. App. Br. 14.

The Appellant's argument is not persuasive of reversible error. The Examiner relies on Fogler to show that when the activity of the catalyst decreases, the reaction temperature would need to be increased to compensate for the decreased catalytic activity. Ans. 18. The Examiner finds Walsdorff discloses the claimed increase in operating temperature. In that regard, the Examiner finds that the temperature range from second temperature level 21 to third temperature level 22 corresponds to the claimed "operating temperature in the second heating phase." Non-Final Act. 3. Clearly, Walsdorff Figure 1 shows that the temperature increases from second temperature level 21 to third temperature level 22. As for the decrease in temperature disclosed in Walsdorff (i.e., from temperature 25 to temperature 27 in Walsdorff Figure 1), that decrease occurs during cooling phase 26. Walsdorff ¶ 59. The Examiner correctly concludes that claim 1 does not exclude Walsdorff's cooling phase. Ans. 18.

For the reasons set forth above, a preponderance of the evidence of record<sup>9</sup> supports the Examiner's conclusion of obviousness.<sup>10</sup> Therefore, the obviousness rejection of claim 1 is sustained.

The Appellant does not present arguments in support of the separate patentability of any of claims 7–13 and 17. Therefore, the obviousness rejection of claims 7–13 and 17 also is sustained.

---

<sup>9</sup> Throughout the Appeal Brief and the Reply Brief, the Appellant incorrectly states the standard for patentability determinations before the USPTO. Patentability determinations are based on a preponderance of the evidence, not substantial evidence as argued by the Appellant. See *In re Oetiker*, 977 F.2d 1443, 1449 (Fed. Cir. 1992) ("factual determinations by the PTO must be based on a preponderance of the evidence").

<sup>10</sup> We note that the Appellant does not direct us to any evidence of unexpected results.

2. Claim 2

Claim 2 depends from claim 1 and recites that “the first temperature is from 205 to 350°C.” App. Br. 22.

The Appellant argues that “the Examiner has provided no concrete explanation of why it would have been desirable to set the feed temperature (23) of Walsdorff to [a] range from 205–350°C.” App. Br. 15.

To the contrary, the Examiner finds Hibi discloses that the preferred reaction temperature for oxidizing hydrogen chloride to produce chlorine is from 200 to 400°C. Non-Final Act. 6. The Examiner concludes that

it would have been obvious to one of ordinary skill in the art to raise the reaction temperature by using an external heat to the lowest temperature that would allow the reactants to react (first temperature 23 [(“around 200”<sup>11</sup>)]), i.e. just enough to provide the activation energy because as soon as the reaction started, the heat generated by the exothermic reaction would raise the reaction temperature to the second and third temperatures as shown in the Figure 1.

Non-Final Act. 6–7; *see also* Ans. 19 (concluding that it would have been obvious to one of ordinary skill in the art to start the reaction at a temperature closer to the lower end of the preferred range suggested by Hibi because if the temperature is too high, more heat must be removed later to maintain the reaction temperature within the desired range). The Appellant has failed to establish otherwise.

The obviousness rejection of claim 2 is sustained.

3. Claim 3

Claim 3 depends from claim 1 and recites that “a temperature of the hot nitrogen is from 300 to 400°C when the hot nitrogen is introduced into the fluidized-bed reactor.” App. Br. 23.

---

<sup>11</sup> Non-Final Act. 7.

The Appellant argues that “the Examiner has provided no concrete explanation of why it would have been desirable to set the temperature of nitrogen . . . to [a] range from 300–400°C.” App. Br. 16.

In response, the Examiner explains,

[s]ince the admitted prior art clearly teaches hot nitrogen is commonly used to heat up the fluidized[-]bed, such as about 400°C (note background section, page 3, lines 1–2), it would have been obvious to one skilled in the art to select an appropriate temperature for the hot nitrogen to efficiently heat up the fluidized[-]bed reactor without causing undesirable sintering of the fluidized[-]bed catalyst.<sup>[12]</sup>

Ans. 20. The Appellant has failed to establish otherwise.

The obviousness rejection of claim 3 is sustained.

4. Claim 5

Claim 5 depends from claim 1 and recites that “the heat transfer medium is steam having a pressure of from 16 to 165 bar and a temperature of from 205 to 350°C.” App. Br. 23.

The Appellant argues that “no motivation would have existed based on the teachings of Walsdorff to employ steam as a heat transfer medium to *heat* the fluidized[-]bed reactor during a pre-heating phase.” App. Br. 17. The Appellant argues that paragraphs 41 and 55 of Walsdorff disclose that boiling water (i.e., steam) may be used to *remove heat* from the fluidized-bed reactor. App. Br. 17. However, the Appellant argues that Walsdorff does not disclose that boiling water may also be used to *heat* the fluidized-bed. App. Br. 17 (citing Walsdorff ¶ 42).

Walsdorff discloses that “[f]urther heat transfer media which can be used both for introducing heat and for removing heat from the fluidized[-]bed are, for

---

<sup>12</sup> The Appellant discloses that sintering occurs at 450°C. Spec. 2, ll. 4–7.

example, thermal oils or *further heat transfer media known to those skilled in the art.*” Walsdorff ¶ 42 (emphasis added).

We recognize that Walsdorff does not expressly disclose, in paragraph 42, that steam may be used to heat the fluidized-bed. Nonetheless, Walsdorff does not expressly exclude using steam (*see* Ans. 21), and the evidence of record establishes that steam was a known heat transfer medium at the time of the Appellant’s invention (*see* Walsdorff ¶¶ 41, 55). Thus, a preponderance of the evidence of record supports a finding that one of ordinary skill in the art would have expected steam to be useful for introducing heat to Walsdorff’s fluidized-bed in the disclosed process. For that reason, we find that one of ordinary skill in the art would have been motivated to heat Walsdorff’s fluidized-bed using steam.

The obviousness rejection of claim 6 is sustained.

5. Claim 6

Claim 6 depends from claim 1 and recites that “the introducing of the hot nitrogen into the fluidized-bed reactor occurs *after* the circulating of the heat transfer medium.” App. Br. 23 (emphasis added).

The Appellant argues that “the Examiner has not provided an explanation as to why it would have been desirable to modify the process of Walsdorff such that the fluidized-bed reactor is pre-heated using a heat transfer medium (circulated through a heat exchanger) followed by hot nitrogen (introduced directly into the reactor).” App. Br. 18. In particular, the Appellant argues that

Further heating the fluidized-bed (after pre-heating with a heat transfer medium) by introducing hot nitrogen would not be undertaken, because this would produce the *opposite* temperature distribution—in which the first temperature (20) would be *higher* than the temperature of the fluidized-bed near the second temperature zone (8).

App. Br. 19.

For the reasons discussed above, one of ordinary skill in the art would not have heated Walsdorff's fluidized-bed higher than first temperature level 20 using a heat transfer medium, either alone or in combination with hot nitrogen. Therefore, a temperature profile contrary to the teachings of Walsdorff would not have been produced in Walsdorff's modified process. *See* Ans. 22.

As for the order of heating recited in claim 6, the Examiner concludes that the "selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results." Ans. 21 (citing *In re Burhans*, 154 F.2d 690 (CCPA 1946)). In response, the Appellant does not explain why the order of steps recited in claim 6 is critical or direct us to any evidence establishing that the claimed order of steps would have produced unexpected results.

The obviousness rejection of claim 6 is sustained.

6. Claim 18

Claim 18 depends from claim 1 and recites that "the HCl:O<sub>2</sub> ratio is reduced during the operating phase to counter a decrease in HCl conversion due to progressive deactivation of the particulate catalyst." App. Br. 24.

The Examiner finds that it is conventional in the art to use excess oxygen to promote the complete oxidation of HCl. Non-Final Act. 9 (citing *Hibi* ¶ 274). The Examiner, however, explains that, as suggested by Folger, "in order to maintain the reaction rate when the catalyst becomes deactivated, the reaction temperature needs to be increased." Non-Final Act. 9. Therefore, the Examiner concludes that it would have been obvious to one of ordinary skill in the art to use any means to raise the reaction temperature, such as decreasing the amount of oxygen used "because less oxygen used, less heat is required to heat up the extra oxygen." Non-Final Act. 9.

The Appellant argues that “[t]he Examiner has not provided any concrete evidence (other than pure conjecture) to support the factual conclusion . . . that using less oxygen would naturally lead to an increase in reaction temperature.” Reply Br. 11<sup>13</sup>; *see also* App. Br. 20 (arguing that the Examiner makes the conclusory statement that decreasing the amount of oxygen used would raise the reaction temperature because less heat is required to heat up the extra oxygen).

In response, the Examiner explains that:

As stated in the . . . rejection [of claim 18], Fogler fairly teaches that the reaction temperature should be increased with time as the catalyst becomes deactivated and *in order to raise the temperature, it would have been obvious to one skilled in the art to use less oxygen so that less heat would be required to heat up the extra oxygen.*

Ans. 23 (emphasis added).

The Examiner, however, does not provide any technical reasoning or direct us to any evidence to support the conclusory statement that “in order to raise the temperature, it would have been obvious to one skilled in the art to use less oxygen so that less heat would be required to heat up the extra oxygen.”<sup>14</sup> *See* Reply Br. 11 (arguing that “introducing *less* oxygen would not be undertaken, because doing so would reduce conversion and thereby reduce the amount of heat released”). Therefore, the obviousness rejection of claim 18 is not sustained. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (“rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”).

---

<sup>13</sup> Reply Brief dated January 30, 2018.

<sup>14</sup> Ans. 23; *see also* Non-Final Act. 9 (concluding that it would have been obvious to one of ordinary skill in the art to decrease the amount of oxygen used “because less oxygen used, less heat is required to heat up the extra oxygen”).

C. CONCLUSION

The Examiner's decision is affirmed-in-part.

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1-3, 5-13, 17, 18	103(a)	Walsdorff, Admitted prior art, Fogler, Hibi	1-3, 5-13, 17	18
<b>Overall Outcome</b>			1-3, 5-13, 17	18

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

AFFIRMED-IN-PART