

Patent Owner's Demonstratives

**Robe Lighting S.R.O.
v.
Guangzhou Haoyang Electronic Co., Ltd.**

**IPR2025-01016
U.S. Patent No. 11,988,373**

Claim Construction

Claim Construction—“synchronously increasing the temperature”

Petitioner’s Construction	Patent Owner’s Construction
[increasing the temperature] “at the same time” <i>Petition (Paper 1) at 62.</i>	“increasing the temperature at the same speed” <i>Patent Owner Response (Paper 9) at 3.</i>

- Claim 8 recites:

“The light fixture according to claim 6, further comprising a temperature control system for **synchronously** increasing the temperature inside the head housing and the base housing.”
’373 patent at 10:15-18.
- The ’373 patent states:

“the temperature control system **600** is configured to **coordinately control** the temperature inside the head housing **110** and the base housing **310** to **keep the temperature therein consistent, thus avoiding temperature asynchronous** due to”
’373 patent at 7:49-59; Patent Owner Response (Paper 9) at 3.
- The ’373 patent states:

“the temperature detected by the temperature sensor **130** can **synchronously increase** by **controlling the heating power** of the respective heating elements, thus achieving both **synchronously change of the temperature** and air pressure inside the head housing **110** and the base housing **310**”
’373 patent at 8:11-16; Patent Owner Response (Paper 9) at 4.

Claim Construction—Petitioner’s Construction is Not Consistent with the Specification

Petitioner Argues: “‘synchronously’ was intended to have its general or ordinary meaning, as increasing the temperature in the base housing and the head housing ‘at the same time.’ (EX1004 ¶ 157 (citing Merriam-Webster Dictionary definition of ‘synchronous’ (available at <http://www.merriam-webster.com/dictionary/synchronous>) (EX1021).)”

Petition (Paper 1) at 62.

- But:

Petitioner specifically chooses a construction that does not require any consistency in the temperature because it excludes “a more particular meaning . . . such as constantly maintaining equal temperature in the base housing and the head housing.”

Patent Owner Response (Paper 9) at 7 (citing Petition at 62).



“this court has instructed that any such construction be consistent with the specification, and that claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art”

In re Abbott Diabetes Care Inc., 696 F.3d 1142, 1149 (Fed. Cir. 2012).

Claim Construction—Petitioner Uses the Wrong Dictionary Definition

Term in '373 Patent	Petitioner's Dictionary	Patent Owner's Dictionary
synchronously	synchronous adjective 1 : happening, existing, or arising at precisely the same time 2 : recurring or operating at exactly the same periods 3 : involving or indicating synchronism 4 a : having the same period also : having the same period and phase b : GEOSTATIONARY	synchronously adverb syn·chro·nous·ly 1 : at the same time : SIMULTANEOUSLY, CONTEMPORANEOUSLY 2 : at the same speed or frequency
'373 Patent at 10:16.	Exhibit 1021.	Exhibit 2001.

Petitioner appears to be selectively—and erroneously—applying the meaning of “synchronous” applicable to instantaneous events

Patent Owner Response (Paper 9) at 10.

Instantaneous Actions	Actions with Rate/Speed
Jumping Clicking a mouse	Running on a track Swimming in a pool Drinking water Driving on a highway Increasing temperature

Patent Owner Response (Paper 9) at 9-10.

Claim Construction—Patent Owner’s Construction IS the Plain and Ordinary Meaning

Petitioner Argues: “The Patent Owner argues that this special construction is required”

Petitioner’s Reply (Paper 10) at 2.

- But:

- Patent Owner’s construction IS the plain and ordinary meaning of the term
- Patent Owner’s construction is one of the dictionary definitions

Sur-Reply (Paper 11) at 2.

- And:



words “may have more than one plain and ordinary meaning.”

Kaneka Corp. v. Xiamen Kingdomway Grp. Co., 790 F.3d 1298, 1304-05 (Fed. Cir. 2015).



Words often have different meanings . . . accounting for the multiple ordinary meanings found in dictionaries.”

Ferguson Beauregard/Logic Controls, Div. of Dover Res., Inc. v. Mega Sys., LLC, 350 F.3d 1327, 1331 (Fed. Cir. 2003).

Claim Construction—Summary

- Numerous Reasons to Adopt Patent Owner’s Construction:

- Consistent with the specification

Patent Owner Response (Paper 9) at 3-5; Sur-Reply (Paper 11) at 4.

- Relies on correct dictionary definition

Patent Owner Response (Paper 9) at 5, 8; Sur-Reply (Paper 11) at 2.

- Consistent with how the adverb “synchronously” is ordinarily used

Patent Owner Response (Paper 9) at 9-11.

- Numerous Reasons to Reject Petitioner’s Construction:

- Flatly contradicts the specification

Patent Owner Response (Paper 9) at 6-7.

- Relies on wrong dictionary term

Patent Owner Response (Paper 9) at 8; Sur-Reply (Paper 11) at 5.

- Applies meaning of “synchronous” applicable to instantaneous events

Patent Owner Response (Paper 9) at 10-11.

Summary of Grounds

Summary of Grounds

Ground	Claim(s)	Asserted Basis
1	1-4, 6, 10, and 11	Anticipated (§ 102) by Jurik (United States Patent No. 12,085,267)
2	5, 12, and 13	Obvious (§ 103) over Jurik, or alternatively, obvious over Jurik in view of Johansen (United States Patent No. 9,777,917)
3	7 and 8	Obvious (§ 103) over Jurik
4	9	Anticipated (§ 102) by Jurik, or alternatively, obvious (§ 103) over Jurik in view of Jurik 2 (United States Patent Appl. Publ. No. 2015/0103553)

Patent Owner
Responded

Patent Owner
Responded

Petition (Paper 1) at 3; Patent Owner Response (Paper 9) at 11.

- Petitioner bears the burden for all asserted grounds:



“Further confirming that the burden cannot shift to the patentee post institution, the IPR regulations do not require a patent owner to submit *any* response to the petition, either before or after institution”

Fanduel, Inc. v. Interactive Games LLC, 966 F.3d 1334, 1342 (Fed. Cir. 2020).

Overview

Petitioner cannot rely on motivations to combine that
 (1) exist only in the challenged patent and
 (2) are not only absent from the prior art but taught away from and antithetical to the prior art's teachings.

And Petitioner cannot support such motivations with conclusory expert testimony bereft of evidentiary support.

The Petition's assertions based on such motivations are manifest examples of hindsight reconstruction.

Patent Owner Response (Paper 9) at 2.

Otherwise, every combination would become obvious because an expert can simply claim a person would have been motivated to [make a change] to [produce the logical result of that change], without any underlying evidence.

Patent Owner Response (Paper 9) at 19.

Ground 2 (Claims 5, 12, and 13)

Ground 2—Claim 5—Petitioner Duplicates Jurik’s Membrane and Switch

- Claim 5 recites:

wherein the base housing is provided with **an additional waterproof breathable valve** allowing an internal space of the base housing in air communication with the external space of the light fixture; and **a switch is further provided, which is capable of switching between two states by unblocking/blocking the additional waterproof breathable valve** to make the internal space of the base housing in air communication with the external space of the light fixture or not

’373 patent at Claim 5.

- Petitioner Relies on Duplicating Jurik’s Membrane and Switch:

“First, very sound reasons existed for simply adding a second membrane 210/410 in Jurik, also connected to the base enclosure 202/402 to serve the same purpose as the first waterproof breathable valve.”

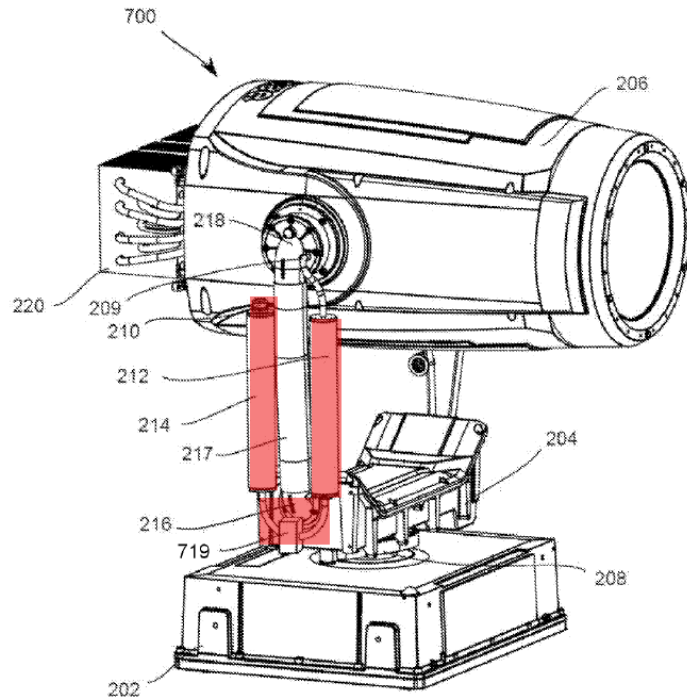
Petition (Paper 1) at 48 (citing Exhibit 1004 at ¶134).

“In making this modification, a person of ordinary skill would have recognized that the second waterproof breathable valve would need to be closed off in order to test the sealing performance, in the same way that the existing waterproof breathable valve is closed off.”

Petition (Paper 1) at 51.

Ground 2—Claim 5—Jurik’s Drying Tubes are Huge—It Would Not Have Been Obvious to Duplicate Them

Petitioner admits that Jurik’s membrane 210/410 is placed at the end of “drying tubes 212 and 214 (which include a drying agent or desiccant).” *Id.* at 14. Jurik uses its membrane 210 in combination with the drying tubes, which are “configured to remove water vapor (or humidity) from incoming air.” Jurik at 5:43-46.



Patent Owner Response (Paper 9) at 14.

Patent Owner Response (Paper 9) at 13.

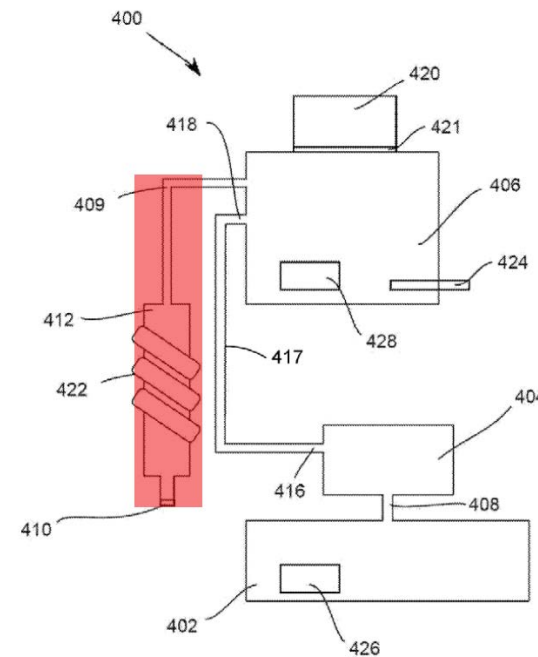


FIGURE 4

Patent Owner Response (Paper 9) at 15.

Ground 2—Claim 5—Petitioner Bears the Burden of Explaining Duplication or Removal of Jurik’s Huge Tubes

- If combination removes Jurik’s tubes:

Nothing in Jurik suggests that its membrane 210 works by itself, without the included drying tubes. Indeed, Jurik specifically recognizes that the membrane material merely “reduces or prevents” the passage of water and is used in combination with drying tubes to remove remaining “water vapor” from incoming air. Jurik at 5:38-46.

Patent Owner Response (Paper 9) at 17.

Petitioner [] bears the burden to explain the omission. This burden includes explaining why one of skill would have used Jurik’s membrane alone, and why it would have worked.

Sur-Reply (Paper 11) at 11.

- If combination also duplicates Jurik’s tubes:

Petitioner fails to discuss, or even acknowledge, the apparent difficulties that would arise given the enormous size of the drying tubes.

Patent Owner Response (Paper 9) at 17.



“patent drawings may be useful in shedding light about the general shapes and relative sizes of elements of the claimed invention, as well as their spatial relations to one another”

*Regents of Univ. of California v. Satco Prods., Inc., No. 2023-1356, 2024 WL 4972639, at *3 (Fed. Cir. Dec. 4, 2024.*

Ground 2—Claim 5—Jurik Says Drying Tubes Are Needed Between the Membrane and Switch

- Jurik says:

“However, **positioning the valve 719 with at least one of the drying tubes 212 and 214 between the valve 719 and the membrane 210 provides the benefit that, in such a position, the air passing through the valve 719 has been dried, which reduces the likelihood that condensation will form within the valve 719.** The presence of such condensation when the ambient temperature falls below freezing could increase the likelihood that the valve 719 will freeze up and cease to function properly.”

Jurik at 10:5-10; Sur-Reply at 12.

- But:

Petitioner simply ignores whether drying tubes are even included in its own combination because they are not claimed. See Reply at 10 (“‘drying tubes’ are neither required by claim 5 nor are they part of Petitioner’s argument”), 11 (“Claim 5 does not expressly or impliedly require drying tubes”).

Sur-Reply at 12.

- Petitioner bears the burden of explaining why a person of ordinary skill *would* have omitted the drying tubes and why the membrane alone *would* have worked in view of Jurik’s contrary teachings.

Sur-Reply at 12.

Ground 2—Claim 5—Jurik Teaches a Combined Enclosure Vented Through a “Single” Humidity Reducing System

- Jurik Teaches:

“three enclosures 202, 204, and 206 [that] are [] connected together by pipes 208 and 217 to form a **combined enclosure** having pressure and humidity control.”

Patent Owner Response (Paper 9) at 16 (citing Jurik at 5:24-26).

the “**connected enclosures** are vented to the outside air through each other to a **single water and humidity reducing system**.”

Patent Owner Response (Paper 9) at 16 (citing Jurik at 3:24-26).

Jurik further explains that by having all the components connected together and protected by the “**single**” humidity reducing system, the luminaire gains the “**ability to increase the number of enclosures [and] increase[e] the number of luminaire components that may be protected from damage or degradation . . .**”

Patent Owner Response (Paper 9) at 16 (citing Jurik at 4:43-49).

Jurik even goes to the trouble of defining the “phrase ‘**connected enclosures**’ [] means one or more enclosures.”

Patent Owner Response (Paper 9) at 19 (citing Jurik at 4:49-51).

Ground 2—Claim 5—Jurik Teaches a Combined Enclosure Vented Through a “Single” Humidity Reducing System



“Prior art teaches away when ‘a person of ordinary skill, upon reading the reference, . . . would be led in a direction divergent from the path that was taken by the applicant’

Petitioner’s Reply (Paper 10) at 13 (citing Arctic Cat Inc. v. Bombardier Recreational Prods. Inc., 876 F.3d 1350, 1360 (Fed. Cir. 2017)).

- Thus:

A person of ordinary skill, upon reading Jurik, would be led in the direction of using “connected enclosures” (Jurik at 4:49-51) that rely on a “single water and humidity reducing system” (*id.* at 3:24-26), which provides the luminaire with the “ability to increase the number of enclosures [and] increas[e] the number of luminaire components that may be protected from damage or degradation” (*id.* at 4:43-49).

Sur-Reply (Paper 11) at 13.

- But:

Petitioner does not address why a person of skill would have modified Jurik in view of Jurik’s contrary teachings, even on reply

Sur-Reply (Paper 11) at 14.

Ground 2—Claim 5—Jurik Contradicts Petitioner’s Motivations

Petitioner Argues: “A person of ordinary skill would be motivated to make such a modification in order to allow for **additional air outflow capacity**. . .”

Petition (Paper 1) at 48 (citing Exhibit 1004 at ¶ 134).

- But Jurik says:

the “volume of air passing . . . through drying tubes 212 and 214 is relatively small [and] the drying tubes 212 and 214 have a capacity to remove the humidity for multiple on/off cycles . . .”

Patent Owner Response (Paper 9) at 18 (quoting Jurik at 5:66-6:2).

Petitioner Argues: “A person of ordinary skill would be motivated to make such a modification in order to . . . **provide redundancy**”

Petition (Paper 1) at 48 (citing Exhibit 1004 at ¶ 134).

- But:

Jurik teaches away from redundancy because it discloses a luminaire that has the ability to “increase the number of enclosures” while remaining protected from humidity because all of the enclosures are “connected enclosures” that are vented through a “single” humidity reducing system.

Patent Owner Response (Paper 9) at 18.

Ground 2—Claim 5—Petitioner’s Motivations Lack Factual Support

Redundancy and additional capacity are just the logical results of duplicating something.

Petitioner does not support these alleged motivations with any factual support from Jurik or elsewhere in the prior art.

Patent Owner Response (Paper 9) at 18.



“The Board examined both the initial and the supplemental declarations of Apple’s expert. It found that testimony was conclusory and was, as a whole, improperly guided by hindsight. The Board emphasized how Apple’s expert used the phrases ‘would naturally have included’; **‘it would be logical’**; and **‘could be, and most logically would be.’** It also found that there was **no factual support underlying the expert testimony.**”

Patent Owner Response (Paper 9) at 18, 29 (citing Apple Inc. v. MPH Techs Oy, 28 F.4th 254, 262 (Fed. Cir. 2022)).



“The showing of a motivation to combine must be clear and particular, and it **must be supported by actual evidence.**”

Patent Owner Response (Paper 9) at 26 (citing Teleflex, Inc. v. Ficosa N. Am. Corp., 299 F.3d 1313, 1334 (Fed. Cir. 2002)).



“Conclusory expert testimony does not qualify as substantial evidence.”

Patent Owner Response (Paper 9) at 26 (citing TQ Delta, LLC v. CISCO Sys., Inc., 942 F.3d 1352, 1358 (Fed. Cir. 2019)).

Ground 2—Claim 5—Jurik Contradicts Petitioner’s Motivations

Petitioner Argues: “a person of ordinary skill in the art of stage lighting would also have considered it obvious to include a second membrane on the base enclosure in situations **where a separate humidity and pressure control system is connected to the base enclosure . . .**”

Petition (Paper 1) at 49 (citing Exhibit 1004 at ¶ 135).

- But:

This presupposes the result. Petitioner is just saying it would be obvious to include a second structure “where a separate [second structure]” is already included.

Patent Owner Response (Paper 9) at 19.

- And Jurik Teaches:

the “**connected enclosures** are vented to the outside air through each other to **a single water and humidity reducing system.**”

Patent Owner Response (Paper 9) at 16 (citing Jurik at 3:24-26).

Ground 2—Claim 5—Petitioner’s Motivations Are Hindsight

Petitioner Argues: “. . . or in order to isolate the base enclosure or separately test the sealing ability of the base enclosure”

Petition at 49 (citing Exhibit 1004 at ¶ 135).

- But Jurik Teaches:

the “**connected enclosures** are vented to the outside air through each other to a **single water and humidity reducing system.**”

Patent Owner Response (Paper 9) at 16 (citing Jurik at 3:24-26).

- And the ’373 Patent Teaches:

On the other hand, **the patent at issue specifically describes isolating the airflow between the head housing and the base housing**: “the pipeline 210 is provided with a blocking device 220 for selectively blocking the mutual air flow between the head housing 110 and the base housing 310.”

Patent Owner Response (Paper 9) at 20.

“We repeatedly expressed concerns that crediting such testimony risks allowing the challenger to use the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from the prior art—i.e., the impermissible *ex post* reasoning and hindsight bias that *KSR* warned against.”

Patent Owner Response (Paper 9) at 20 (citing TQ Delta, LLC v. CISCO Sys., Inc., 942 F.3d 1352, 1361 (Fed. Cir. 2019)).



Ground 2—Claim 5—Petitioner Admits Merely Duplicating Jurik’s Valve Does Not Satisfy Claim 5

- Claim 5 recites:

a switch is further provided, which is capable of switching between two states by unblocking/blocking the additional waterproof breathable valve **to make the internal space of the base housing in air communication with the external space of the light fixture or not**

'373 patent at Claim 5.

- Petitioner Argues:

Petitioner Argues: “Patent Owner fails to recognize that **closing the existing valve 719/819 in Jurik prevents any air from escaping** the combined enclosure through the membrane 410. [] **Thus, contrary to the Patent Owner’s argument, closing a second switch on the base enclosure in Jurik would not ‘exchange air externally through a connected enclosure.’”**

Reply (Paper 10) at 18.

- But:

If **coordination** between the duplicated valve and the original valve is necessary, then Petitioner bears the burden to explain the reasons for such coordination. Petitioner provides no such explanation, even on reply. Amazingly, Petitioner does not even bother to assert that Jurik’s existing valve would be closed during operation of the duplicated valve.

Sur-Reply (Paper 11) at 19.

Ground 2—Claim 5—Petitioner’s Reply Johansen Arguments are New and Nonetheless Fail

Petitioner Argues on Reply: “[t]here is also no logical reason that the waterproof breathable valve on the base enclosure of Johansen could not be used in Jurik”

Reply (Paper 10) at 19.

- But:

Including Johansen’s dehumidifying device in Jurik is an entirely new argument.

Sur-Reply (Paper 11) at 20 (citing Petition at 49-50).

Could not would. Nothing in the Petition explains why a person of ordinary skill would—not could—have replaced Jurik’s parts with Johansen’s

Sur-Reply (Paper 11) at 20.

- And:

Johansen states that its membrane 12 **only permits “hydrogen ions [to] pass through the membrane 12** to reach the environment B, [where] they combine with oxygen in the air.”

Sur-Reply (Paper 11) at 21.

- But:

The challenged patent states that a breathable valve allows “**air communication**” (Ex. 1001 at 2:3) to regulate “**air pressure**” (*id.* at 2:6-13).

Sur-Reply (Paper 11) at 21.

Ground 2—Claim 5—Summary

- Numerous Reasons Petitioner Has Not Met Its Burden to Show Claim 5 Unpatentable:

- Fails to explain duplication or omission of Jurik’s large drying tubes

Patent Owner Response (Paper 9) at 17; Sur-Reply (Paper 11) at 11.

- Fails to address/explain Jurik’s teaching away (direction of using connected enclosures and single water and humidity reducing system)

Sur-Reply (Paper 11) at 14.

- Relies on motivations that Jurik contradicts

Patent Owner Response (Paper 9) at 18 (quoting Jurik at 5:66-6:2).

- Relies on motivations that are simply the logical results of duplicating something

Patent Owner Response (Paper 9) at 18, 29 (citing Apple Inc. v. MPH Techs Oy, 28 F.4th 254, 262 (Fed. Cir. 2022)).

- Motivations lack factual support in the prior art

Patent Owner Response (Paper 9) at 18.

- Motivations exist in challenged patent and are hindsight

Patent Owner Response (Paper 9) at 20.

- Admits mere duplication of Jurik’s switch does not satisfy claim 5, coordination with the existing, unduplicated switch is required

Sur-Reply (Paper 11) at 19.

Ground 2—Claims 12-13

“Claims 12 and 13 depend directly from claim 5 and are thus not obvious over Jurik, or alternatively, obvious over Jurik in view of Johansen for the same reasons identified above with respect to claim 5.”

Patent Owner Response (Paper 9) at 33.

Ground 3 (Claims 7, 8)

Claim 7

Ground 3—Claim 7—Petitioner Concedes Jurik Does Not Disclose the Claimed Blocking Device

- Claim 7 recites:

The light fixture according to claim 6, wherein the pipeline is provided with a **blocking device for selectively blocking mutual air flow between the head housing and the base housing.**

'373 patent at Claim 7.

- Petitioner concedes:

“A ‘**blocking device** for selectively blocking mutual air flow between the head housing and the base housing’ as recited by claim 7 **is not expressly disclosed by Jurik . . .**”

✓ Conceded

Petition (Paper 1) at 57.

Ground 3—Claim 7—Petitioner Relies on Hindsight

Petitioner Argues: “A person of ordinary skill in the art would find it obvious to add another electromagnetic valve along pipe 217/417 **so as to isolate and test the head enclosure 206/406 separately from the base enclosure 202/402**, as indicated by the red highlighted area added to Figures 7 and 8 below from Jurik. (EX1004 ¶ 153.) A person of ordinary skill in the art would have been **motivated** to make this minor addition to Jurik **in order to isolate the leaking enclosure** and to save maintenance costs required to replace all of the seals when only one leaking seal needs replacement. (*Id.*)”

Petition (Paper 1) at 59.

- But:

But this motivation exists only in the '373 patent—the challenged patent.

Patent Owner Response (Paper 9) at 24.



“To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher”

Patent Owner Response (Paper 9) at 25 (citing W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1553 (Fed. Cir. 1983)).

Ground 3—Claim 7—Petitioner’s Motivation is Antithetical to Jurik’s Teachings

Petitioner Argues: “A person of ordinary skill in the art would find it obvious to add another electromagnetic valve along pipe 217/417 **so as to isolate and test the head enclosure 206/406 separately from the base enclosure 202/402**, as indicated by the red highlighted area added to Figures 7 and 8 below from Jurik. (EX1004 ¶ 153.) A person of ordinary skill in the art would have been **motivated** to make this minor addition to Jurik **in order to isolate the leaking enclosure** and to save maintenance costs required to replace all of the seals when only one leaking seal needs replacement. (*Id.*)”

- But Jurik Teaches:

the “**connected enclosures** are vented to the outside air through each other to **a single water and humidity reducing system.**”

Patent Owner Response (Paper 9) at 24 (citing Jurik at 3:24-26).

- Thus:

Jurik was directed specifically to a design where all the enclosures are connected together in an *unblocked state*—i.e., capable of exchanging air between each other—so that they all benefit from a “single” (*id.* at 3:24-26) water and humidity reducing system.

Patent Owner Response (Paper 9) at 25.

Ground 3—Claim 7—Summary

- Petitioner admits Jurik does not teach the claimed blocking device.

Petition (Paper 1) at 57.

- Petitioner's proffered motivation exists in the challenged '373 patent.

Patent Owner Response (Paper 9) at 24; Petition (Paper 1) at 58 (citing '373 patent at 7:28-42).

- Petitioner's motivation is absent from the prior art.

Patent Owner Response (Paper 9) at 24.

- Petitioner's motivation is antithetical to the prior art.

Patent Owner Response (Paper 9) at 24.

Claim 8

Ground 3—Claim 8—Petitioner Concedes Under Patent Owner’s Construction

✓ Patent Owner’s Construction

- Claim 8 recites:

The light fixture according to claim 6, further comprising a temperature **control system for synchronously increasing the temperature** inside the head housing and the base housing

’373 patent at Claim 8.

- Petitioner concedes it has failed to demonstrate claim 8 is unpatenable under Patent Owner’s Construction for “synchronously.”

“If the claim term ‘synchronously’ from claim 8 is construed as argued by Patent Owner, i.e., ‘at the same speed,’ **Petitioner concedes that Jurik does not disclose or render obvious such a temperature control system.**”

✓ Conceded

Reply (Paper 10) at 24.

Ground 3—Claim 8—Petitioner Fails to Support Obviousness Beyond Its Expert’s *Ipse Dixit* Statements

Petitioner’s Construction

✓ Admitted

Petitioner Admits: “The **Jurik** reference **does not explicitly state** that the control system 600 is **configured to activate the heating elements in the base enclosure 202/402 and the head enclosure 206/406 ‘at the same time,’ . . .**”

Reply (Paper 10) at 24.

Petitioner Argues: “It would have obvious to activate the heating elements at the same time in order **to more evenly heat all internal areas of the connected enclosures** (and avoid a hot spot caused by using only one element). In addition, it would have been obvious to activate the heating elements at the same time **so as to reduce the time required to sufficiently increase the temperature** inside the connected enclosures so as to adequately test the sealing performance.”

Petition (Paper 1) at 64.

Ground 3—Claim 8—Petitioner Fails to Support Obviousness Beyond Its *Ipse Dixit* Statements

Petitioner's Construction

- The **entirety** of Petitioner's expert's supporting rationale:

Sur-Reply (Paper 11) at 24.

160. The Jurik reference does not explicitly state that the control system 600 is configured to activate the heating elements in the base enclosure 202/402 and the head enclosure 206/406 "at the same time," but a person of ordinary skill in the art would have considered it obvious to do. It would have obvious to activate the heating elements at the same time in order to more evenly heat all internal areas of the connected enclosures (and avoid a hot spot caused by using only one element). In addition, it would have been obvious to activate the heating elements at the same time so as to reduce the time required to sufficiently increase the temperature inside the connected enclosures so as to adequately test the sealing performance.

Exhibit 1004 at ¶160.



"The showing of a motivation to combine must be clear and particular, and it **must be supported by actual evidence.**"

Patent Owner Response (Paper 9) at 26 (citing Teleflex, Inc. v. Ficosa N. Am. Corp., 299 F.3d 1313, 1334 (Fed. Cir. 2002)).



"Conclusory expert testimony does not qualify as substantial evidence."

Patent Owner Response (Paper 9) at 26 (citing TQ Delta, LLC v. CISCO Sys., Inc., 942 F.3d 1352, 1358 (Fed. Cir. 2019)).

Ground 3—Claim 8—Petitioner Uses the '373 Patent as a Roadmap

Petitioner's Construction

Petitioner Argues: “It would have obvious to activate the heating elements at the same time in order **to more evenly heat all internal areas of the connected . . .**”

Petition (Paper 1) at 64.

- But that's what the '373 patent teaches:

“coordinately control[s] the temperature inside the head housing and the base housing to **keep the temperature therein consistent.**”

'373 patent at 7:47-59; Patent Owner Response (Paper 9) at 30.

- And:

Petitioner does not point to anything in the prior art that would motivate a person of skill to modify Jurik to produce more even heating

Patent Owner Response (Paper 9) at 30.

“We repeatedly expressed concerns that crediting such testimony risks allowing the challenger to use the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from the prior art—i.e., the impermissible *ex post* reasoning and hindsight bias that *KSR* warned against.”

Patent Owner Response (Paper 9) at 30-31 (citing TQ Delta, LLC v. CISCO Sys., Inc., 942 F.3d 1352, 1361 (Fed. Cir. 2019)).



Claim Appendix

'373 Patent—Claim 1

1. A light fixture with self-test ability of sealing, comprising a light head having a head housing; a light source for emitting light and generating heat, which is arranged in the head housing, the light emitted by the light source being projected through a light outlet of the head housing; a temperature sensor and an air pressure sensor for respectively detecting temperature and air pressure inside the head housing, which are arranged in the head housing; and a controller configured to determine sealing performance of the head housing based on detection results of the temperature sensor and the air pressure sensor, wherein the head housing is provided with a waterproof breathable valve allowing an internal space of the head housing in air communication with an external space of the light fixture; and a switch is further provided, which is configured to make the internal space of the head housing in air communication with the external space of the light fixture by unblocking the waterproof breathable valve when the light fixture is in normal operation, so as to keep air pressure balance between inside and outside of the head housing, and configured to make the internal space of the head housing not in air communication with the external space of the light fixture by blocking the waterproof breathable valve when the light fixture is in testing of sealing performance.

'373 patent at Claim 1.

2. The light fixture according to claim 1, wherein an effect assembly is further provided inside the head housing, which is configured to receive the light emitted by the light source and generate a light effect.

3. The light fixture according to claim 1, wherein a light shielding member for intercepting the light emitted by the light source is provided to improve efficiency of heating the inside of the head housing when the internal space of the head housing is isolated from the external space of the light fixture.

4. The light fixture according to claim 1, further comprising a support arm for supporting the light head to rotate, and a base for supporting the support arm, the base having a base housing.

5. The light fixture according to claim 4, wherein the base further comprises
a switching mode power supply arranged inside the base housing for supplying power and generating heat; and
an additional temperature sensor and an additional air pressure sensor for respectively detecting the temperature and air pressure inside the base housing,
wherein the base housing is provided with an additional waterproof breathable valve allowing an internal space of the base housing in air communication with the external space of the light fixture; and a switch is further provided, which is capable of switching between two states by unblocking/blocking the additional waterproof breathable valve to make the internal space of the base housing in air communication with the external space of the light fixture or not.

6. The light fixture according to claim 4, wherein a pipeline is configured to communicate the head housing with the base housing, with a joint therebetween sealed.

7. The light fixture according to claim 6, wherein the pipeline is provided with a blocking device for selectively blocking mutual air flow between the head housing and the base housing.

8. The light fixture according to claim 6, further comprising a temperature control system for synchronously increasing the temperature inside the head housing and the base housing.

9. The light fixture according to claim 1, wherein a heat homogenizing assembly is further provided in the head housing.

10. The light fixture according to claim 1, wherein an auxiliary heating assembly is further provided in the head housing.

11. The light fixture according to claim 1, wherein the switch is in form of an electromagnetic valve.

12. The light fixture according to claim 5, wherein a heat homogenizing assembly is further provided in the base housing.

13. The light fixture according to claim 5, wherein an auxiliary heating assembly is further provided in the base housing.