

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TOPSOE, INC.,

Petitioner

v.

L'AIR LIQUIDE, SOCIÉTÉ ANONYME POUR L'ETUDE ET
L'EXPLOITATION DES PROCÉDÉS GEORGES CLAUDE,

Patent Owner

Case IPR2025-01173
Patent No 11,673,805

**PATENT OWNER'S REPLY¹ IN SUPPORT OF
DISCRETIONARY DENIAL**

¹ Authorized by email dated October 16, 2025. *See* EX3101.

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As authorized, this reply addresses: (1) whether a listing of a small subset, including Reinertsen and Rytter, of examiner search results (versus the search query addressed in *Siemens Mobility*) was before the Examiner for purposes of *Advanced Bionics* part one; and (2) Petitioner's allegation, first taken in opposition to discretionary denial, that the Darde reference was not before the Examiner for purposes of *Advanced Bionics* part one. EX3101. These issues are critical because Reinertsen, Rytter, and Darde are the foundation of all of the Petition's grounds.

I. DARDE WAS CONSIDERED FOR PURPOSES OF PART ONE OF THE *ADVANCED BIONICS* PART FRAMEWORK

The Petition recognizes that “*Darde is cited* in the file history of the '805 Patent.”² Pet., 12-13.³ Petitioner also correctly noted that the '805 Patent was allowed over “US20150321914 (U.S. national stage of Darde (EX1007)).” Pet., 9; EX1002, 69 (submitted in IDS), 138 (cited in form PTO-892). Now, to avoid discretionary denial, Petitioner asserts that “Darde Was Not Presented” because “Darde-US omits Darde's sole figure,” without which “the Examiner could not have fully understood Darde-US or the arrangement of system components, nor would a

² PO's Request for Discretionary Denial at page 3 inadvertently mis-quoted the Petition's “*Darde is cited*” as “*Darde was considered.*” That was unintentional; the undersigned sincerely apologizes for missing the error before that paper was filed.

³ All emphasis added except where otherwise noted.

POSA have been *as* motivated to combine Darde-US with other relevant art.” *Id.*, 12-13. As support, “Petitioner and Dr. Klein directly rely on Darde’s sole figure,” without which Petitioner contends the Examiner could not have understood it. *Id.*

Petitioner’s position is untenable for each of several reasons.

First, Petitioner presumes that the examiner overlooked *all of* Darde-US’s “BRIEF DESCRIPTION OF THE DRAWINGS,” express description of “The FIGURE” in that section, and detailed description with reference numerals plainly corresponding to “The FIGURE.” *See, e.g.*, EX2001, ¶¶[0104]-[0108]. Petitioner also necessarily presumes that the Examiner, faced with a publication that does not include “The FIGURE” would have been unable to simply review the figure in the USPTO file wrapper. And, finally, Petitioner overlooks that Darde itself was also identified *repeatedly* by the Examiner in his own distilled lists of search results:

US9327972	US12544099	Systems and p	8/21/2008	8/19/2009	5/3/2016
WO2014091098A1	PCTFR2013052613	Method for pi	12/13/2012	10/31/2013	6/19/2014
KR20090015041A	KR20087026815A	Carbon dioxid	4/3/2006	10/31/2008	2/11/2009

EX1002, 141/203, 172/203, 175/203.

Second, even if the Examiner was for some reason unwilling to look up that figure, Petitioner offers no substantive explanation as to why its absence had any impact on the Examiner’s understanding of what Darde also describes. Paper 11, 13 (only conclusory, nonspecific attorney argument that “the Examiner could not have fully understood” and that “a POSA would [not] have been *as* motivated”). Petitioner’s positions defy logic. Darde-US not only describes the content of its

figure, but was also addressed in the '805 Patent's own "Prior Art" and "Detailed Description..." sections. EX1001, 2:9-24, 9:40-10:38. And Petitioner takes no issue with the Examiner's *correct* understanding that Darde does *not* include "a first endothermic reforming unit configured to be heated by a second autothermal reforming unit nor is there for a plant comprising same." EX1002, 136/203.

Thus, the substance of Darde was plainly considered by the Examiner.

II. REINERTSEN & RYTTER WERE CONSIDERED FOR PURPOSES OF PART ONE OF THE *ADVANCED BIONICS* PART FRAMEWORK

Reinertsen-PCT and Rytter appeared in a small subset of the Examiner's own extensive search results. Paper 9, 4-8 (each one of just 14 prior art patent families culled from search results). Petitioner responds by equating a reference in a search query to one included in a small, manually culled subset of results, and contends that the *Siemens* approach should thus control. Petitioner's arguments are unavailing.

At the outset, the difference between a search query and a search result is self-evident. A patent in a search query suggests that prior art referencing that patent may be relevant, not that the patent is itself necessarily relevant. Unlike the query addressed in *Siemens*, Reinertsen-PCT and Rytter were not merely search results, but in a small subset of art the Examiner indisputably culled from the exponentially larger set of search results. Paper 9, 4-6. Petitioner posits no explanation for how the Examiner, with mere "cursory glances," could have identified *all* three of the references on which the Petition now relies for claim 1.

Petitioner’s plea that there is no explanation for “the absence of Reinertsen and Rytter from a PTO-892 listing ... or any Office Action” (Paper 11, 6) overlooks the simplest inference—*i.e.*, the Examiner concluded that Darde-US was the closest reference and made the judgment call to **not** reject the claims over Darde combined with Reinertsen-PCT or Rytter. *Cf.* Paper 10. And Petitioner’s own treatment of MPEP Sections 1302.12 and 707.05 show why the Examiner had no need to list Reinertsen-PCT or Rytter here. Paper 11, 3-4 (§1302.12’s requirement to list “references which have been **cited** by the examiner”), 4 (§707.05’s requirement to list “references **relied upon** in any Office Action”). Neither Reinertsen-PCT nor Rytter were cited in an Office Action, and the Examiner complied with §707.05(c)’s call to “point[] out briefly” “pertinent features of references which are not used as a basis for rejection.” EX1002, 136/203 (addressing Darde-US); *see also* Paper 9, 6.

Petitioner’s contention that the Examiner had insufficient time to investigate family relationships (Paper 11, 8) is a red herring. In particular, the fact that only 14 prior art families are represented shows that the Examiner’s selection followed a consistent substantive pattern and, of course, left no need to study every reference individually given the necessarily cumulative nature of members of a single family.

Finally, resolving the issue in PO’s favor here does not require a broad new rule that *all* search results are *necessarily* before the Examiner for purposes of *Advanced Bionics*. On the other hand, Petitioner’s demand for a blanket rule that

search results are *never* presented unless also in a form PTO-892 would yield undesirable policy consequences. For example, such a rule would incentivize applicants to file additional IDSs for the Examiner’s own search results that the Examiner already elected not to list. That would be inefficient, highly unlikely to change the Examiner’s view of those references, and utterly neglectful of the fact that distilling search results is a core function of examination.

Here, the Examiner *repeatedly* listed Reinertsen-PCT and Rytter among the small subset of prior art specifically listed. EX1002, 141/203 (Reinertsen-PCT), 172/203 (same), 176/203 (same), 142/203 (Rytter), 173/203 (same). That the Examiner did not at any of those times add Reinertsen-PCT or Rytter to a form PTO-892 (Paper 11, 7) only confirms that—despite consideration sufficiently detailed to specifically list them in the small subset of search results, the Examiner determined they were no more relevant than Darde-US (which lacked a dual-reformer) and Kresnyak (which included a dual-reformer), both of which were already listed in a form PTO-892. EX1002, 138/203; *see also* Paper 9, 9; Paper 11, 9-12. Even under the broadest reading of *Siemens*, these are sufficiently “unusual circumstances” to conclude the Examiner considered Reinertsen-PCT and Rytter.

Dated: October 20, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that on October 20, 2025, a complete copy of the foregoing Patent Owner's Reply In Support Of Discretionary Denial was served on Petitioner via email (by consent), at the following email address(s):

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