

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* SUZANNE VAN EGMOND

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Appeal 2008-2569  
Application 10/521,290  
Technology Center 2100

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Decided: October 29, 2008

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Before JAMES D. THOMAS, ST. JOHN COURTENAY III, and  
CAROLYN D. THOMAS, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-5. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

## THE INVENTION

Appellant's invention relates generally to a method and a device for identifying the type of discharge lamp. More particularly, Appellant's invention is directed to the type of low-pressure gas discharge lamp (Spec. 1).

Independent claim 1 is illustrative:

1. A method of identifying the type of discharge lamp, characterized in that it comprises the steps of
  - applying an amplitude-modulated control current to a discharge lamp,
  - detecting the peak value of the lamp voltage at a rising edge of the envelope of the modulated control current, and
  - comparing the detected peak value with previously recorded peak values for different lamp types, and
  - assigning the detected peak value to a lamp type on the basis of said comparison.

## THE REFERENCES

The Examiner relies upon the following references as evidence in support of the rejections:

Giannopoulos	US 6,160,361	Dec. 12, 2000
Alexandrov	US 2004/0124785 A1	Jul. 1, 2004

## THE REJECTIONS

1. Claims 1-4 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Giannopoulos.

2. Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Giannopoulos in view of Alexandrov.

#### CONTENTIONS BY APPELLANT

1. Appellant contends that the Examiner erred in rejecting claims 1 and 2 as being anticipated by Giannopoulos because:
  - A. The Giannopoulos description of adjusting current to two or more levels is not a disclosure of an amplitude modulated current (App. Br. 4).
  - B. Giannopoulos discloses measuring current on the tread of the step, instead of detecting the peak value of the lamp voltage at a rising edge of the envelope of the module control current (App. Br. 4).
2. Appellant contends that the Examiner erred in rejecting dependent claim 3 as being anticipated by Giannopoulos because Giannopoulos fails to disclose frequency modulation (App. Br. 6).
3. Appellant contends that the Examiner erred in rejecting dependent claim 4 as being anticipated by Giannopoulos because Giannopoulos fails to disclose pulse width modulation (App. Br. 6).
4. Appellant contends that the Examiner erred in rejecting dependent claim 5 as being unpatentable over Giannopoulos in view of Alexandrov for the same reasons previously argued for claim 1, and also because the secondary Alexandrov reference fails to overcome the teachings of Giannopoulos (App. Br. 6).

## ISSUES

1. We consider the question of whether Appellant has shown that the Examiner erred in rejecting claims 1 and 2 as being anticipated by Giannopoulos for the following reasons:

1A. We consider the question of whether Appellant has shown that the Examiner erred in finding that the Giannopoulos description of adjusting current to two or more levels is a disclosure of amplitude modulated current.

1B. We consider the question of whether Appellant has shown that the Examiner erred in finding that Giannopoulos discloses detecting the peak value of the lamp voltage at a rising edge of the envelope of the module control current.

2. We consider the question of whether Appellant has shown that the Examiner erred in finding that Giannopoulos discloses frequency modulation (App. Br. 6).

3. We consider the question of whether Appellant has shown that the Examiner erred in finding that Giannopoulos discloses pulse width modulation (App. Br. 6).

## PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 102, “[a] single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation.” *Perricone v. Medicis Pharm.*

*Corp.*, 432 F.3d 1368, 1375-76 (Fed. Cir. 2005) (citation omitted). “Anticipation of a patent claim requires a finding that the claim at issue ‘reads on’ a prior art reference.” *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1346 (Fed Cir. 1999) (“In other words, if granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless of whether it also covers subject matter not in the prior art.”) (internal citations omitted).

Appellant has the burden on appeal to the Board to demonstrate error in the Examiner’s position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006). Therefore, we look to Appellant’s Briefs to show error in the proffered prima facie case.

## FINDINGS OF FACTS

The following Findings of Facts (FF) are shown by a preponderance of the evidence.

### *The Giannopoulos reference*

1. Giannopoulos discloses “[a] ballast for operating different types of lamp loads through identification of the lamp type during steady state operation of the lamp load.” (Abstract).
2. Giannopoulos discloses “adjusting the lamp load current to at least two different levels . . .” (Col. 1, ll. 51-52).
3. Giannopoulos discloses changing the current applied to the lamp as follows: “[u]nder a step 107, the microprocessor output

signal now reflects setting the value of ILAMP=ILAMPi.”  
(Col. 3, ll. 22-24).

4. Giannopoulos discloses the detection of voltage levels (V1, V2, V3) at points in time (t1, t2, t3, t4) that correspond to changed ILAMPi current levels (I1, I2, I3) (*see* Figs. 4A and 4B and associated discussion col. 3, l. 63 through col. 4, l. 16).
5. Giannopoulos disclose rising edges of current in the time periods between t2 and t3, and also between time periods t3 and t4 (Fig. 4B).
6. Giannopoulos discloses “[a] high frequency pulse train, which can vary in frequency and/or pulse width.” (Col. 2, ll. 57-58).

## ANALYSIS

### *Issue 1*

We decide the question of whether Appellant has shown that the Examiner erred in rejecting independent claims 1 and 2 as being anticipated by Giannopoulos under 35 U.S.C. § 102(b) for the reasons discussed *infra* (*see Issues 1A and 1B*). Since Appellant’s arguments with respect to this rejection have treated these claims as a single group which stand or fall together, we select independent claim 1 as the representative claim for this rejection. *See* 37 C.F.R. § 41.37(c)(1)(vii).

### *Issue 1A*

We decide the question of whether Appellant has shown that the Examiner erred in finding that the Giannopoulos description of adjusting current to two or more levels is a disclosure of amplitude modulated current.

Appellant grounds her argument on the premise that amplitude modulation requires periodicity (App. Br. 4). However, we note that periodicity is not claimed. A basic canon of claim construction is that one may not read a limitation into a claim from the written description.

*Renishaw plc v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998).

Our analysis thus turns upon the claim construction that we accord to the claim term “modulated.” During prosecution, “the PTO gives claims their ‘broadest reasonable interpretation.’” *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004) (quoting *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000)).

Here, we broadly but reasonably construe the claim term “modulated” as imparting some change to a signal which could be a periodic signal (i.e., a carrier), but could also be a static signal that is “amplitude modulated” by simply changing the level (amplitude) of the signal current (or voltage) in some manner. We note that Giannopoulos expressly discloses “adjusting the lamp load current to at least two different levels” (FF 2). Given the aforementioned claim construction, we find no error in the Examiner’s reasoning as set forth on page 7 of the Answer. Therefore, we find that Appellant has not shown that the Examiner erred in finding that the Giannopoulos description of adjusting current to two or more levels is a disclosure of amplitude modulated current.

*Issue 1B*

We decide the question of whether Appellant has shown that the Examiner erred in finding that Giannopoulos discloses detecting the peak value of the lamp voltage at a rising edge of the envelope of the module control current.

Appellant asserts that Giannopoulos does not disclose a “peak” and further, does not detect a peak value during a step change in voltage (i.e., rising edge) (App. Br. 5).

The Examiner responds as follows:

The Appellant's argument has not been found persuasive. Figure 4A and 4B clearly show that the voltages V1, V2 and V3 are measured as ILAMP is increased (i.e. I1, I2 and I3). For instance maximum steady voltage is recorded while ILAMP is at I1 level, up to the point when the value of current starts to increase to the next level (i.e. 12). The examiner would like to note that voltage is measured for the entire duration of current modulation cycle, not only for the specified intervals when voltage reaches maximum, therefore as shown in figure 4A, voltage is also measured on the riser.

(Ans. 8).

As noted by the Examiner, Giannopoulos discloses the detection of voltage levels (V1, V2, V3) at points in time (t1, t2, t3, t4) that correspond to changed ILAMPi current levels (I1, I2, I3) (FF 4). Consistent with Appellant's claim, we construe the claim term “peak value” (of lamp voltage) as any value sampled “at a rising edge of the envelope of the modulated control current.” (Claims 1-2). We broadly but reasonably construe a “rising edge” as any current level that is rising. Giannopoulos discloses rising current edges between times t2 and t3 and also between

times t3 and t4 (FF 5) (Fig. 4B). Giannopoulos discloses the detection of voltage levels (V1, V2, V3) at points in time (t1, t2, t3, t4) that correspond to these changed (rising) ILAMPi current levels (I1, I2, I3) (FF 4). Given the aforementioned claim construction (peak value, rising edge), we find that the weight of the evidence supports the Examiner’s position as articulated in the Answer (pp. 3-4, 8-9). Moreover, we note that Appellant expressly states (regarding the “peak value” issue), that “the present claims are open-ended and allow for further acts . . . .” (Reply Br. 4, ¶3). Therefore, we find that Appellant has not shown that the Examiner erred in finding that Giannopoulos discloses “detecting the peak value of the lamp voltage at a rising edge of the envelope of the modulated control current,” as claimed (claims 1-2).

### *Issue 2*

We decide the question of whether Appellant has shown that the Examiner erred in finding that Giannopoulos discloses frequency modulation (App. Br. 6). In the principal Brief, Appellant merely asserts that there is no disclosure or suggestion of frequency modulation (*Id.*). However, Appellant has failed to traverse the Examiner’s finding that Giannopoulos discloses a high frequency pulse train (square wave) where frequency can vary (i.e., frequency modulation) (Ans. 12) (FF 6). Therefore, we find that Appellant has not shown that the Examiner erred in finding that Giannopoulos discloses frequency modulation, as claimed (claim 3).

*Issue 3*

We decide the question of whether Appellant has shown that the Examiner erred in finding that Giannopoulos discloses pulse width modulation (App. Br. 6). In the principal Brief, Appellant merely asserts that there is no disclosure or suggestion of pulse width modulation (*Id.*). However, Appellant has failed to traverse the Examiner's finding that Giannopoulos discloses a high frequency pulse train, which can vary in frequency and/or pulse width (i.e., pulse width modulation) (Ans. 12) (FF 6). Therefore, we find that Appellant has not shown that the Examiner erred in finding that Giannopoulos discloses pulse width modulation, as claimed (claim 3).

Independent claims 1 and 2

Pursuant to our discussion above of *Issues 1A* and *1B*, we sustain the Examiner's rejection of representative claim 1 (and independent claim 2 that falls therewith), as being anticipated by Giannopoulos. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Dependent claim 3

Pursuant to our discussion above of *Issue 2*, we sustain the Examiner's rejection of dependent claim 3 as being anticipated by Giannopoulos.

Dependent claim 4

Pursuant to our discussion above of *Issue 3*, we sustain the Examiner's rejection of dependent claim 4 as being anticipated by Giannopoulos.

Dependent claim 5

Appellant has not presented any substantive arguments directed separately to the patentability of claim 5. We do not find Appellant's assertion persuasive that “[t]he mere mention of the words ‘amplitude modulation’ does not constitute a teaching of the claimed invention.” (App. Br. 6). We note that Appellant did not provide a basis for this assertion. Therefore, we find that Appellant's arguments are merely conclusory and do not meet the burden of showing error in the Examiner's prima facie case of obviousness. Because Appellant has not shown the Examiner erred, we sustain the Examiner's rejection of claim 5 as being unpatentable over Giannopoulos in view of Alexandrov for the same reasons discussed *supra* regarding claim 1.

REPLY BRIEF

We note that the Reply Brief is properly used to respond to points of argument raised by the Examiner in the Answer and not as a means for presenting new arguments. *See Optivus Tech., Inc. v. Ion Beam Applications S.A.*, 469 F.3d 978, 989 (Fed. Cir. 2006) (an issue not raised in an opening brief is waived). We have fully considered the responses in the Reply Brief to the extent that Appellant restates previous arguments or addresses new points raised by the Examiner in the Answer. However, we decline to address any new arguments not originally presented in the principal Brief. It is our view that Appellant's contentions in the Reply Brief are premised upon an overly narrow interpretation of the claim terms discussed *supra* (modulated, peak, rising edge). We conclude that a broad but reasonable interpretation of the aforementioned claim terms is not so limiting. With

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respect to all claims before us on appeal, arguments which Appellant could have made but chose not to make have not been considered and are deemed to be waived. *See 37 C.F.R. § 41.37(c)(1)(vii).* *See also In re Watts*, 354 F.3d 1362, 1368 (Fed. Cir. 2004).

#### CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that Appellant has not met her burden of showing that the Examiner erred in rejecting claims 1-4 as being anticipated by Giannopoulos under 35 U.S.C. § 102(b).

Based on the findings of facts and analysis above, we conclude that Appellant has not met her burden of showing that the Examiner erred in rejecting claim 5 as being unpatentable over Giannopoulos in view of Alexandrov under 35 U.S.C. § 103(a).

Therefore, claims 1-5 are not patentable.

#### DECISION

We affirm the Examiner's decision rejecting claims 1-5.

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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**

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR NY 10510