

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex Parte WEN-BING KANG, NU YU and AKIHIKO TOKIDA

Appeal No. 1998-1726
Application 08/681,117

HEARD: March 20, 2001

Before, LIEBERMAN, TIMM and JEFFREY T. SMITH, Administrative Patent Judges.

JEFFREY T. SMITH, Administrative Patent Judge.

Decision on appeal under 35 U.S.C. § 134

Applicants appeal the decision of the Primary Examiner finally rejecting claims

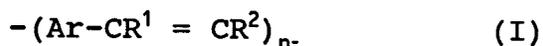
1-8.¹ We have jurisdiction under 35 U.S.C. § 134.

¹ The Applicants mistakenly indicate that claims 12 to 15 and 18 are pending in this application and claims 1 to 11 and 16 have been canceled. (Brief pg. 2). In the argument section of the Brief, Applicants correctly indicate that claims 1-8 stand rejected.

BACKGROUND

According to Appellants, the invention is directed to a process for patterning a fluorescent poly(arylenevinylene) (PAV) film. These films are used in electroluminescent devices. (Brief, page 2). Claims 1 and 8 which are representative of the invention are reproduced below:

1. A process for forming a pattern which comprises irradiating with light a film of a poly(arylenevinylene) polymer represented by formula (I)



wherein Ar is a substituted or unsubstituted divalent aromatic hydrocarbon group or a substituted or unsubstituted divalent heterocyclic ring group, and the aromatic hydrocarbon group and the heterocyclic ring group may be a fused ring, R¹ and R², independently or each other, are selected from the group consisting of H, CN, alkyl, alkoxy, a substituted aromatic hydrocarbon group, an unsubstituted aromatic hydrocarbon group, a substituted aromatic heterocycle group and an unsubstituted aromatic heterocycle group, wherein the unsubstituted or substituted aromatic hydrocarbon group and the unsubstituted or substituted aromatic heterocyclic group may be fused rings, and n is an integer from 5 to 30,000.

8. An organic electroluminescent device comprising a layer of a patterned poly(arylenevinylene) polymer film produced by the process according to claim 1.

As evidence of unpatentability, the Examiner relies on the following references:

Holmes (Holmes '809)	5,328,809	Jul. 12, 1994
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Holmes (Holmes '125)

5,425,125

Jun.. 13, 1995

THE REJECTION

The Examiner entered the following ground of rejection:

Claims 1-8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Holmes '809. (Examiner's Answer, page 3).

Claims 1-8 are rejected under 35 U.S.C. § 102(e) as being anticipated by Holmes '125. (Examiner's Answer, page 3).

OPINION

Upon careful review of the entire record including the respective positions advanced by Appellants and the Examiner, and agree with the Appellants that each of the rejections of claims 1-8 is not well founded. Accordingly, we reverse each of the rejections.

“[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability,” whether on the grounds of anticipation or obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

As an initial matter, we note the Holmes '125 reference is based on application serial number 08/199,036 which is a divisional of application serial number 07/748,795 which is now U.S. Patent 5,328,809. Thus, Holmes '125 has same

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specification Holmes '809. We will therefore limit our discussion to the Holmes '809 reference.

We find Holmes is directed to a method for forming in a semiconductive conjugated polymer at least first and second regions having different optical properties. The invention also includes an electroluminescent device including a semiconductive conjugated polymer comprising first and second regions having different optical properties. The method of making a semiconductive conjugated polymer comprises forming a layer of a precursor polymer and permitting the first region to come into contact with a reactant, such as an acid, and heat while permitting the second region to come into contact with a lower concentration of the reactant. (Col. 2, ll. 8-19). The preferred precursor polymers include poly(para-phenylene-1,2-ethanediyl) polymer, a poly(2,5 dimethoxy para-phenylene-1,2-ethanediyl) polymer or poly(thienylene-1,2-ethanediyl) polymer. (Paragraph bridging cols. 4-5). A suitable precursor polymer is represented by Formula I which is converted to a partially conjugated poly(arylenevinylene) polymer represented by Formula II. (Col. 14, ll. 1-8). We find the polymer represented by Formula II of Holmes is a specie of the poly(arylenevinylene) polymer represented by formula (I) of claim 1. Holmes does not disclose irradiating the poly(arylenevinylene) polymer represented by Formula II to form a pattern.

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Holmes discloses a pattern is formed by applying a coating in a desired pattern to the surface of the layer of the precursor polymer so as to leave unprotected portions of the surface. For example, a high resolution patterned coating is formed by applying a layer of photoresist to the layer of the coating and the layer of photoresist is activated so as to render the coating in the desired pattern protected by the photoresist. A reactant is applied to the unprotected portions. The unprotected coating and photoresist are subsequently removed to leave the patterned coating. (Col. 3, ll. 41-68). Thus, the optical properties of the first region are different from those of the second region.

It is the Examiner's position that Holmes "discloses a process for forming a pattern which comprises irradiating with light a film of poly(arylenevinylene) polymer within the scope of the instant formula (I), and a[n] electroluminescent device comprising a layer of a patterned poly(arylenevinylene) polymer produce by the said process." (Final rejection, page 3). We disagree.

In order for a claimed invention to be anticipated under 35 U.S.C. § 102, all of the elements of the claim must be found in one reference. *See Scripps Clinic & Research Found. v. Genentech Inc.*, 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991).

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Claim 1 is directed to a process for forming a pattern which comprises irradiating with light a film of a poly(arylenevinylene) polymer represented by formula (I). The poly(arylenevinylene) polymer of Holmes is not irradiated with light to form a patterned film. The patterned film of Holmes is formed from a precursor polymer which is subsequently treated, such as with an acid and heat, in a way that only a part of the precursor polymer is converted to an active poly(arylenevinylene) polymer. Thus, the process of Holmes forms a pattern by the use of materials and steps which do not anticipate the process of claim 1.

We have not been directed to evidence which indicates the electroluminescent device of Holmes anticipates the electroluminescent device of claim 8. The Examiner also has not argued that a the electroluminescent device of claim 8 is the same as the electroluminescent device of Holmes although produced by a different process. Consequently, the Examiner has not met the initial burden of presenting a *prima facie* case of unpatentability. *See In re Oetiker, id.*

Based upon the above analysis, we have determined that the Examiner's legal conclusion of anticipation is not supported by the facts. "Where the legal conclusion is not supported by [the] facts it cannot stand." *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 177-78 (CCPA 1967).

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CONCLUSION

The rejection of claims 1-8 as being unpatentable under 35 U.S.C. § 102(b) over Holmes '809 is reversed.

The rejection of claims 1-8 as being unpatentable under 35 U.S.C. § 102(b) over Holmes '125 is reversed.

REVERSED

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PAUL LIEBERMAN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
CATHERINE TIMM)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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