

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. 35

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte
VOLKER REIFFENRATH,
DETLET PAULUTH,
and HERBERT PLACH

Appeal No. 1999-0310
Application No. 08/225,267

ON BRIEF

Before PAK, WARREN and LIEBERMAN, Administrative Patent Judges.

LIEBERMAN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the decision of the examiner refusing to allow claims 1, 7, 9 through 11, 17, and 18.¹

THE INVENTION

The invention is directed to a liquid crystalline medium comprising at least one

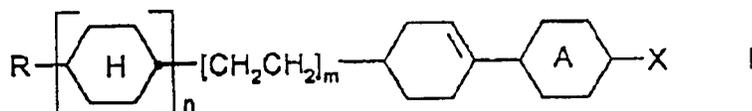
¹Claims 2 through 6 and 8 have been objected to by the examiner with regard to the elected species, that of Example 1. Claims 12 through 16 have been withdrawn from consideration as directed to a non-elected invention, the aforesaid claims having been cancelled. See the amendment of April 16, 1996.

fluorophenylcyclohexene derivative having a specific formula. The species elected is that of Example 1 on page 41 of the specification. Additional limitations are described in the following illustrative claim.

THE CLAIMS

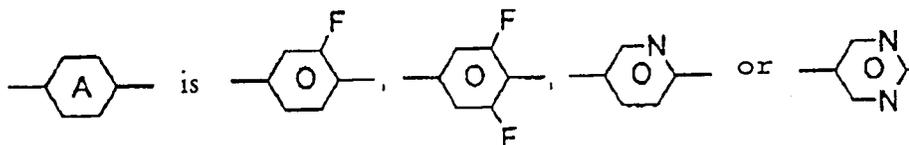
Claim 1 is illustrative of appellants' invention and is reproduced below.

1. A liquid-crystalline medium based on a mixture of polar compounds having positive dielectric anisotropy, comprising at least one fluorophenylcyclohexene derivative of formula I



wherein

R is H, an unsubstituted alkyl or alkenyl radical having up to 18 carbon atoms, in which one or more non-adjacent CH₂ groups are optionally replaced by -O-, -S-, -CO-, -O-CO-, -CO-O- or -C≡C-,



X is CN or Q-Y,

Y is H, F or Cl,

Q is -CF₂-, -CHF-, -OCF₂-, -OCHF-, -OCH₂CF₂-, -CH=CF-, -CF=CH-, -CF=CF-, -O-CF=CF-, -O-CH=CF- or a single bond,

m is 0 or 1, and

n is 0, 1 or 2.

**THE
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As evidence of obviousness, the examiner relies upon the following references:

Tanaka et al. (Tanaka)	4,910,350	Mar. 20, 1990
Goto et al. (Goto)	5,032,313	Jul. 16, 1991
Reiffenrath et al. (Reiffenrath)	5,487,845	Jan. 30, 1996
	(Effective filing date Nov. 19, 1990)	

THE REJECTIONS

Claims 1, 7, 10, 11 and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tanaka.

Claims 1, 7, 9 through 11, 17 and 18 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 4 of U.S. Patent No. 5, 487,845.

OPINION

We have carefully considered all of the arguments advanced by the appellants and the examiner and agree with the appellants that the rejection of the claims under §103(a) is not well founded. Accordingly, we reverse this rejection. We agree with the examiner that the rejection on the grounds of obviousness-type double patenting is well founded. Accordingly, we affirm this rejection.

The Rejection under § 103

It is the examiner's position that Tanaka discloses the compounds of the claimed invention when X is F, R is alkyl m = 0 and n = 1. The difference noted by the examiner is

that the double bond is in a different position. See Answer, page 5 and 6. It is however, the examiner's position that since the claimed compound is a positional isomer with respect to the placement of the double bond, the compounds are obvious. Id. We disagree.

Tanaka is directed to fluorine substituted cyclohexylcyclohexene derivatives useful as electro optical display materials. See column 1, lines 6-7. The closest compounds disclosed by Tanaka are those having a double bond in the same ring as the claimed subject matter but in a different position. See column 6, lines 14-16. We find that these compounds are prepared by a lengthy organic synthesis having seven synthesis steps. See column 6, line 22 to column 7, line 51. We further find that each of the specific compounds prepared by Tanaka are prepared by lengthy multi synthesis steps. See column 2, line 50 to column 4, line 47 and column 4, line 48 to column 5, line 68. There is however, no disclosure for the synthesis of a compound having a double bond adjacent to the aromatic phenylene ring.

It is well settled that "[r]eferences relied upon to support a rejection under 35 USC 103 must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public." See In re Payne, 606 F.2d 303, 315, 203 USPQ 245, 254 - 255 (CCPA 1979). The presumption of obviousness in the Answer, "based on close structural similarity is overcome where the prior art does not disclose or render obvious a method for making the claimed compound." Id. Based upon the above findings and analysis, the rejection of the examiner is not sustained.

Because we reverse on this basis, we need not reach the issue of the sufficiency of the showing of unexpected results in the declaration to Bremer. In re Geiger, 815 F. 2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987).

The Rejection Under Obviousness-type Double Patenting

All proper double patenting rejections rest on the fact that a patent has been issued and a later issuance of a second patent will continue protection beyond the date of expiration of the first patent of the very same invention claimed therein or of a mere variation of that invention which would have been obvious to those of ordinary skill in the relevant art. See In re Kaplan, 789 F.2d 1574, 1579-80, 229 USPQ 678, 683 (Fed. Cir. 1986).

Our analysis of the examiner's rejection of claim 1 under the doctrine of judicially created double patenting parallels that for a § 103 rejection. While the double patenting rejection is analogous to a failure to meet the non-obviousness requirement of 35 U.S.C. § 103, that section is not itself involved in double patenting rejections because the patent principally underlying the rejection is not usually prior art. In re Braat, 937 F.2d 589, 592-93, 19 USPQ2d 1289, 1291-92 (Fed. Cir. 1991); In re Longi, 759 F.2d 887, 892-93, 225 USPQ 645, 648 (Fed. Cir. 1985); In re Braithwaite, 379 F.2d 594, 600 n.4, 154 USPQ 29, 34 n.4 (CCPA 1967). When considering whether the claimed subject matter is an obvious variation of the invention defined in the claims of the

5,487,845 patent, the disclosure of the patent may not be used as prior art.

Our analysis of the claims before us and those of U. S. Patent No. 5,487,845 necessarily requires a comparison of the claimed subject matter with that of claims 1 and 4 of the '845 patent. Although the examiner in the rejection of record relies upon claims 1 and 4, we rely solely upon claim 1. We find that at least one group of compounds, wherein Q is a single bond, L is F, Y is F, m is O, Z² is a single bond, R is alkyl of 1 to 15 and A² is trans 1,4- cyclohexenylene, fall within the scope of the claimed subject matter of appellants' claim 1 wherein R is alkyl, m is O, n is O, Q is a single bond, Y is F and the phenyl ring has a fluorine atom in both the 3 and 5 position as shown in the third formula of line 11 of appellants' claim 1.

Although, claim 1 of the '845 patent does not define the specific meaning of 1,4 - cyclohexenylene, we refer to column 4, lines 44-50 which discloses two rings one of which has a double bond adjacent to the phenylene ring of the claimed subject matter. Generally, when considering whether the claimed subject matter is an obvious variation of the invention defined in the claims of the '845 patent, the disclosure of the patent may not be used as prior art. The specification however can always be used as a dictionary to learn the meaning of a term in the patent claim. In re Boylan, 392 F.2d 1017, 1018 n.1, 157 USPQ 370, 371 n.1 (CCPA 1968). In the claims before us, we determine that the specification of the '845 patent defines the term 1,4 -cyclohexenylene to include a double bond adjacent to the phenyl ring as required by the claimed subject matter. See column 9, lines 44-52.

Accordingly, the claims before constitute an extension of monopoly.

Finally, with respect to the declaration to Plach, in a rejection on the grounds of obviousness-type double patenting an affidavit under 37 CFR § 1.132 is ineffective to overcome the rejection except in the instance wherein, the prior art effect of the first patent may be avoided by a showing under 37 CFR § 1.132 that any unclaimed invention disclosed in the first patent was derived from the inventor of the application before the examiner in which the 35 U.S.C. §§102(e)/103(a) rejection was made. In re Katz, 687 F.2d 450, 215 USPQ 14 (CCPA 1982). Such is not the case on the record before us. Accordingly, the rejection of the examiner is sustained.

DECISION

The rejection of claims 1, 7, 10, 11 and 17 under 35 U.S.C. §103(a) as being unpatentable over Tanaka is reversed.

The rejection of claims 1, 7, 9 through 11, 17 and 18 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 4 of U.S. Patent No. 5, 487,845 is affirmed.

The decision of the examiner is affirmed.

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

AFFIRMED

CHARLES F. WARREN
Administrative Patent Judge

PAUL LIEBERMAN
Administrative Patent Judge

) BOARD OF PATENT
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) AND
) INTERFERENCES
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Pak, Administrative Patent Judge, concurring:

I concur with my colleagues in the results only. Respectfully, I offer the following comments because I believe that the Board majority did not properly analyze the applied prior art, Tanaka, in reversing the examiner's § 103 rejection.

As recognized by the majority, the examiner's § 103 rejection is premised upon

structural similarities between the claimed compound and the prior art compound, both of which are used as part of a liquid crystal medium. The only difference between the compounds involved is said to be the location of a double bond.

Although I do not agree with the majority that the applied prior art reference, Tanaka, does not provide an enabling disclosure for making the claimed compound², I reach the same result since one of ordinary skill in the art would not have been led to use the claimed compound as a liquid crystal medium. From reading the Tanaka disclosure, one of ordinary skill in the art would not have reasonably expected that the claimed compound would have the same or similar properties as that taught in Tanaka.

As our reviewing court stated in In re Dow Chemical Co., 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988):

Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure.

Consistent with this requirement, Payne³ stated that

² From my perspective, Tanaka provides a sufficient disclosure to enable one of ordinary skill in the art to change the location of a double bond. See columns 3 through 6 showing the production of double bonds in different locations of prior art compounds.

³ 606 F.2d at 315, 203 USPQ at 254.

An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties (Citation Omitted).

Here, the examiner has not demonstrated that the claimed and prior art compounds are structurally so similar that one of ordinary skill in the art would have expected them to "have similar properties." See, e.g., the location of a double bond in the claimed and prior art compounds, forming the double bond structure (conjugated diene) =C-C= in the claimed compound and the double bond structure (non-conjugated diene) =C-C-C-C= in the prior art compound. Indeed, the prior art, Tanaka, relied upon by the examiner exemplifies compound Nos. 1 and 4 having significantly different liquid crystal properties even though they appear identical except for the position of a double bond. See column 10, transition temperature differences between these compounds (temperatures at which compounds undergo a change, from a crystalline phase to a nematic phase and a nematic phase to an isotropic liquid phase). Implicit in this showing in Tanaka is that the location of a double bond causes chemical compounds in liquid crystal medium to have significantly different liquid crystal properties. Due to this unpredictable nature of chemical compounds in liquid crystal medium, I simply cannot agree with the examiner that one of ordinary skill would have been motivated to form the claimed chemical compound. There simply is no expectation that the claimed compound would have the same or similar liquid crystal

properties as that taught in Tanaka. Under this circumstance, the examiner cannot be said to establish a prima facie case of obviousness based on similarity in chemical structure and function consistent with the requirement set forth in Payne.

CHUNG K. PAK
Administrative Patent Judge

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