

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MIYOJI HANAOKA, HISAO EKIMOTO,
FUMIKO KOBAYASHI, YUKIO IRIE, KATSUTOSHI TAKAHASHI,
MASANOBU SUZUKI, TAKESHI NAKANISHI, OSAMU KOGAWA,
and KEIZOU ISHIKAWA

Appeal No. 94-3012
Application 07/851,853¹

ON BRIEF

Before GARRIS, ELLIS, and OWENS **Administrative Patent Judges.**

ELLIS, **Administrative Patent Judge.**

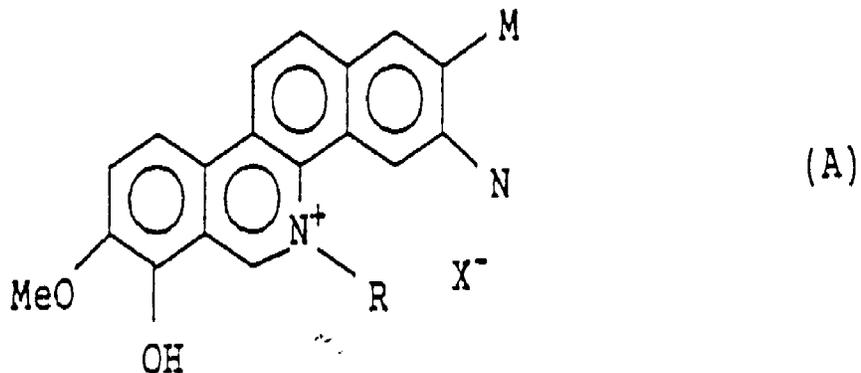
¹ Application for patent filed March 16, 1992. According to the applicants this application is a continuation-in-part of Application 07/784,699, filed October 30, 1991, now abandoned, which is a continuation-in-part of Application 07/621,848, filed December 4, 1990, now abandoned.

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DECISION ON APPEAL

This appeal is from the final rejection of claims 4, 5, 9, 10, 13, 14, 16 through 18 and 26 through 28, all the claims pending in the application. Claim 28 is illustrative of the subject matter on appeal and reads as follows:

28. A benzo[c]phenanthridinium derivative of the general formula A:



wherein M and N together form a methylenedioxy group, X⁻ represents a hydrogen acid residue, and R represents a lower alkyl group.

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The references relied on by the examiner are:

Zee-Cheng et al. (Zee-Cheng) (I) 3,912,740 Oct. 14, 1975
Zee-Cheng et al. (Zee-Cheng) (II) 4,014,885 Mar. 29, 1977

Messmer et al. (Messmer), "Fagaronine, a New Tumor Inhibitor Isolated from *Fagara zanthoxyloides* Lam. (Rutaceae)," Vol. 61, No. 11, pp. 1858-1859, (Nov. 1972)

Hanaoka et al. (Hanaoka), "Synthesis of Fagaridine, A Phenolic Benzo[c]phenanthridine Alkaloid," Chem. Pharm. Bull., Vol. 33, No. 4, pp. 1763-1765 (1985).

Ishii et al. (Ishii) (I), "Studies on the Chemical Constituents of Rutaceous Plants. LX Development of a Versatile Method for Syntheses of the Antitumor Benzo[c]phenanthridine Alkaloids.(9). Efficient Syntheses and Antitumor Activities of Nitidine and Related Nonphenolic Benzo[c]phenanthridine Alkaloids," Chem. Pharm. Bull, Vol. 33, No. 10, pp. 4139-4151 (1985).

Ishii et al. (Ishii) (II), **Chemical Abstracts**, Vol. 107, No. 21, pp. 799-800, Abstract No. 198705c (1987).

Kessar et al. (Kessar), "Benzyne Cyclization Route to Benzo[c]phenanthridine Alkaloids. Synthesis of Chelerythrine, Decarine, and Nitidine," J. Org. Chem., Vol. 53, pp. 1708-1712, (1988).

Claims 4, 5, 9, 10, 13, 14, 16 through 18 and 26 through 28 stand rejected under 35 U.S.C. § 103 as being unpatentable over

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Kessar, Messmer, Hanaoka, Zee-Cheng (I), Zee-Cheng (II), Ishii (I), or Ishii (II).²

Having considered the entire record which includes, **inter alia**, the specification, the appellants' main Brief (Paper No. 13), Reply Brief (Paper No. 15), and Supplemental Reply Brief (Paper No. 20), the examiner's Answer (Paper No. 14) and Supplemental Answer (Paper No. 19) as well as the declaration of Mr. Suzuki (Paper No. 9), we find ourselves in substantial agreement with the appellants' position. Accordingly, we **reverse** the rejection.

The present invention is directed to benzo[c]phenanthridinium derivatives which are said to be useful for the prevention and treatment of malignant tumors in warm-blooded animals. Specification, p. 1, para. 1.

According to the examiner the "references, when taken as a whole, individually or together describe and make obvious a number of compounds which have the benzo[c]phenanthridinium core, and may have OH, OCH₃ substituents on the benzo ring, lower alkyl

² On p. 3 of the Answer, the examiner included the Messmer reference in the listing of the prior art of record relied upon in the rejection, however, she inadvertently omitted the Messmer reference from the rejection on p. 4. The appellants have treated the reference as if it were in the rejection and, for purposes of this appeal, we have done the same.

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and the quaternary nitrogen, and OH, OR (R=alkyl) or methylene dioxy as ["M" and "N" (as in the claim at hand)." Answer, p. 4.

In response, the appellants point to the criticality of the hydrogen acid residue and argue that "[n]owhere do any of the cited references suggest the use of hydrogen acid salts of the claimed compounds or the improved storage stability obtained thereby." Brief, p. 4. The appellants rely on the declaration of Mr. Suzuki to support their position. We concur with the appellants' arguments.

We find from a fair reading of all the references that they do not even allude to the claim limitation of a hydrogen acid residue. The examiner seems to have minimized the importance of this limitation, without addressing the declaration, and argues that "even if HSO⁻ anion lends better properties, such are within the prior art and are already in the public domain." Answer, p. 5. In addition, the examiner alleges that the appellants have not established that the MeSO₄⁻ anion taught by Hanaoka is not a hydrogen acid residue. *Id.* However, in reviewing the references relied on by the examiner it is difficult to discern on what basis these conclusions were reached.

This is especially so in view of the definition of hydrogen acid residues on p. 8 of the specification that "hydrogen acid

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residue means hydrogen salt-forming acid residues which have one or two hydrogen atoms, for instance hydrogen sulfate ion (HSO_4), dihydrogen phosphate ion (H_2PO_4^-), and the like." The appellants distinguish anions formed from "hydrogen acid residues" and from "acid residues" by providing definitions of "acid salt" and "normal salt" from Hackh's Chemical Dictionary, 4th Edition and *Encyclopedia Chimica*. Reply Brief, p. 2; Supplemental Reply Brief, p. 2. The appellants point out that the definitions show that "a hydrogen salt is the same as an acid salt" and that "[h]ydrogen acid residues are residues which form from hydrogen salts (or acid salts)." Reply Brief, para. bridging pp. 2-3. In contrast, "a normal salt-forming acid residue is referred to as an "acid residue." Supplemental Reply Brief, p. 2. Not only do we find the appellants' definition of "hydrogen acid residue" to be consistent with the art-recognized use of the terms "acid salt" and "normal salt," but we also concur with the appellants that a patent applicant can be his/her own lexicographer provided that the specification supports the asserted definition. **Hormone Research Foundation, Inc. v. Genentech, Inc.**, 904 F.2d 1558, 1563, 15 USPQ2d 1039, 1043 (Fed. Cir. 1990); **Fonar Corp. v. Johnson & Johnson**, 821 F.2d 627, 632, 3 USPQ2d 1109, 1113 (Fed. Cir. 1987), **cert. denied**, 484 U.S. 1027 (1988). In the case

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before us, it is indisputable that the specification supports the appellants' definition.

Accordingly, on this record, we do not find that the examiner has established through factual evidence, or sound scientific reasoning, that the combined limitations of the claimed invention would have been obvious to one of ordinary skill in the art at the time the application was filed. A conclusion of obviousness must be based on facts, and not unsupported generalities. *In re Freed* 425 F.2d 785, 788, 165 USPQ 570, 572 (CCPA 1970); *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 CCPA 1967), *cert. denied*, 389 U.S. 1057 (1968).

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The decision of the examiner is reversed.

REVERSED

BRADLEY R. GARRIS)	
Administrative Patent Judge))	
)	
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JOAN ELLIS)	BOARD OF PATENT
Administrative Patent Judge))	APPEALS AND
)	INTERFERENCES
)	
)	
TERRY J. OWENS)	
Administrative Patent Judge))	

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APPEAL NO. 94-3012 - JUDGE ELLIS

APPLICATION NO. 07/851,853

APJ ELLIS

APJ OWENS

APJ GARRIS

DECISION: ***REVERSED***

Typed By: Jenine Gillis

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FINAL TYPED: