

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 21

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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Ex parte BRADLEY D. HEWITT

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Appeal No. 2001-2272  
Application No. 08/809,719

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ON BRIEF

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Before WINTERS, WILLIAM F. SMITH, and ADAMS, Administrative Patent Judges.

WINTERS, Administrative Patent Judge.

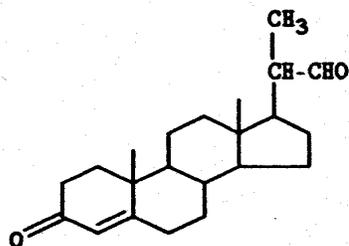
DECISION ON APPEAL

This appeal was taken from the examiner's decision rejecting claims 18 through 35, which are all of the claims remaining in the application.

Representative Claim

Claim 18, which is illustrative of the subject matter on appeal, reads as follows:

18. A process for the production bisnoraldehyde (II)

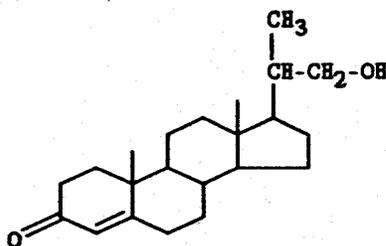


(II)

which comprises:

(1) forming a mixture of

(a) bisnoralcohol (I)



(I)

(b) a catalytic amount of 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl in a pH range of about 8.5 to about 10.5 in a temperature range of about - 10° to about 15°, and

(2) contacting the mixture of step (1) with a stoichiometric amount of hypochlorite in the presence of a catalytic amount of bromide.

The Prior Art References

In rejecting the appealed claims under 35 U.S.C. § 103(a), the examiner relies on the following prior art references:

Mitsubishi Chem. Ind. Ltd. (Mitsubishi)  
(Japan Kokai Patent Appln.)

56-152498

Nov. 26, 1981

Semmelhack et al. (Semmelhack), "Oxidation of Alcohols to Aldehydes with Oxygen

and Cupric Ion Mediated by Nitrosonium Ion," J. Am. Chem. Soc., Vol. 106, pp. 3374-3376 (1984)

Anelli et al. (Anelli), "Fast and Selective Oxidation of Primary Alcohols to Aldehydes or to Carboxylic Acids and of Secondary Alcohols to Ketones Mediated by Oxoammonium Salts Under Two-Phase Conditions," J. Org. Chem., Vol. 52, pp. 2559-2562 (June 12, 1987)

### The Rejections

All of the appealed claims stand rejected (1) under 35 U.S.C. § 112, second paragraph, as indefinite; and (2) under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Mitsubishi, Anelli, and Semmelhack.

### Deliberations

Our deliberations in this matter have included evaluation and review of the following materials: (1) the instant specification, including all of the claims on appeal; (2) applicants' Appeal Brief (Paper No. 13) and the Reply Brief (Paper No. 15); (3) the Examiner's Answer (Paper No. 14); (4) the above-cited prior art references; and (5) the Hewitt declaration, filed under the provisions of 37 CFR § 1.132, executed July 8, 1998.

On consideration of the record, including the above-listed materials, we reverse the examiner's rejections under 35 U.S.C. § 112, second paragraph, and 35 U.S.C. § 103(a).

### Discussion

Independent claim 18 recites "a temperature range of about - 10° to about 15°."

Likewise, dependent claim 28 recites "the temperature is [sic] range is from about -5 to about 5°;" and, again, dependent claim 30 recites "cooling to about - 10° to about 15°." Respecting all these claim recitations, the examiner argues that "[i]t is unclear what temperature scale is intended by the claim [sic] invention." (Paper No. 14, page 4). We disagree.

As stated in In re Sneed, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983)

It is axiomatic that, in proceedings before the PTO, claims in an application are to be given their broadest reasonable interpretation consistent with the specification, and that claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. [citations omitted]

Here, applicant's specification clearly states that "[a]ll temperatures are in degrees Centigrade" (specification, page 3, line 31). Accordingly, when applicant's claim language is read in light of the specification as it would be interpreted by one of ordinary skill in the art, we think that there can be no doubt that all temperatures are in degrees Centigrade.

The rejection of claims 18 through 35 under 35 U.S.C. § 112, second paragraph, is reversed.

The premise of the examiner's prior art rejection is that Anelli discloses the use of 2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPO) in the oxidation of primary alcohols to aldehydes. See Paper No. 14, page 5, second complete paragraph ("Anelli et al. teach the oxidation of primary alcohols to the corresponding aldehydes in the presence of tetramethyl-piperidine-1-oxyl-[TEMPO], methylene chloride, sodium hypochlorite, sodium bicarbonate and potassium bromide (see the entire article)"). The examiner

argues that Semmelhack discloses the art-recognized equivalence of TEMPO and 4-hydroxy-TEMPO; and that it would be prima facie obvious to substitute 4-hydroxy-TEMPO for TEMPO in the process of Anelli, per the teachings of Semmelhack. The examiner further argues that it would have been obvious to use Anelli's process conditions, modified with 4-hydroxy-TEMPO in lieu of TEMPO, in carrying out the oxidation of bisnoralcohol to bisnoraldehyde disclosed by Mitsubishi. The examiner concludes that a person having ordinary skill would have arrived at applicant's claimed process based on the combined disclosures of Mitsubishi, Anelli, and Semmelhack. We disagree.

In our judgment, the premise of this rejection is incorrect and, accordingly, the rejection must fall. More specifically, Anelli does not disclose the use of TEMPO in the oxidation of primary alcohols to aldehydes. Rather, Anelli's disclosure is restricted to the use of 4-methoxy-TEMPO, identified in the reference as compound 3b. Where, as here, the examiner has misapprehended the scope and content of the prior art; where the teaching attributed to Anelli is not found in Anelli; and where the examiner's reliance on Anelli is essential to the rejection under 35 U.S.C. § 103(a), we shall not sustain that rejection.

On this record, we conclude that the examiner has not established a prima facie case of obviousness of claims 18 through 35. Accordingly, we find it unnecessary to discuss the Hewitt declaration, filed under the provisions of 37 CFR § 1.132, and relied

on by applicant as rebutting any such prima facie case.<sup>1</sup>

The rejection of claims 18 through 35 under 35 U.S.C. § 103(a) is reversed.

REVERSED

	)	
Sherman D. Winters	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
William F. Smith	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
Donald E. Adams	)	
Administrative Patent Judge	)	

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<sup>1</sup> We are mindful that applicant characterizes Anelli as disclosing TEMPO (specification, page 1, line 11). As stated in the text of this opinion, however, Anelli's disclosure is restricted to the use of 4-methoxy-TEMPO (compound 3b). In the Hewitt declaration, page 2, first full paragraph, declarant states that Anelli discloses the use of 4-methoxy-TEMPO. Conspicuous by its absence from the declaration is a statement that Hewitt discloses the use of TEMPO in the oxidation of primary alcohols to aldehydes.

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