

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.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 MICHAEL CHARLES MILNER COCKREM

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Appeal No. 2003-0804  
Application No. 09/196,266

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ON BRIEF

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Before KIMLIN, KRATZ and POTEATE, Administrative Patent Judges.  
KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-18 and 20-34, all the claims remaining in the present application.

Claim 1 is illustrative:

1. A process for producing an ester, comprising the steps of:

a. feeding to a first vessel a feed that comprises organic acid, alcohol, and water, whereby organic acid and alcohol react to form monomeric ester and water, wherein the monomeric ester has a lower boiling point than the organic acid, and the feed is

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not dehydrated, and whereby a first liquid effluent is produced that comprises as its components at least some ester, alcohol, and water, the components of the first liquid effluent being substantially in reaction equilibrium; and

b. feeding the first liquid effluent to a second vessel, whereby a vapor product stream and a second liquid effluent stream are produced, the vapor stream comprising ester, alcohol, and water, wherein the second vessel is maintained at vapor-liquid equilibrium but not at reaction equilibrium; wherein at least one of temperature, pressure, and residence time is greater in the first vessel than in the second vessel.

The examiner relies upon the following references as evidence of obviousness:

Datta et al.	5,723,639	Mar. 3, 1998
Ridland et al.	EP 0812818A1	Dec. 17, 1997

Appellant's claimed invention is directed to a process for producing an ester by feeding organic acid, alcohol and water to a first vessel to produce a first liquid effluent that is substantially in reaction equilibrium, and feeding the first effluent to a second vessel to produce a vapor product stream and a second liquid effluent. The second vessel is maintained at vapor-liquid equilibrium but not at reaction equilibrium. Also, "at least one of temperature, pressure, and residence time is greater in the first vessel than in the second vessel" (claim 1, last three lines). According to appellant, "[t]he present

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invention provides high conversion of acid ester while minimizing production of undesired side products such as dimers, oligomers and polymers [and] also minimizes energy usage, and allows continuous operation with low capital cost equipment" (page 4 principal brief, second paragraph).

Appealed claims 1 and 3 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 1-4 and 8-20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ridland, while claims 5-7 and 21-34 stand rejected under § 103 as being unpatentable over Ridland in view of Datta.

We have thoroughly reviewed the respective positions advanced by appellant and the examiner. In so doing, we concur with appellant that the examiner's rejections are not sustainable. Accordingly, the examiner's rejections under § 112 and § 103 are reversed for essentially the reasons expressed by appellant in the principal and reply briefs on appeal.

Concerning the examiner's § 112, second paragraph, rejection, the examiner has not carried the initial burden of demonstrating that when the claim language "substantial" and "sufficiently" are read in light of the present specification and state of the prior art, one of ordinary skill in the art would be unable to reasonably determine the scope of the claimed

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invention. It is well settled that claim language is not to be read in a vacuum but in light of the specification as it would be interpreted by one of ordinary skill in the art. In re Sneed, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983). The paragraph bridging pages 11 and 12 of the answer seems to ignore the controlling law.

We now turn to the examiner's § 103 rejections. We concur with appellant that Ridland fails to teach or suggest the claimed requirement that the feed to the first vessel comprises water, in addition to organic acid and alcohol. The examiner's reliance on Ridland, at page 3, lines 29-30, is misplaced since, as emphasized by appellant, the cited portion of Ridland teaches adding water during the preparation of the catalyst, and not adding water to the feed.

Also, Ridland provides no teaching or suggestion of maintaining the components of the first liquid effluent in substantial reaction equilibrium, maintaining the second vessel at vapor-liquid equilibrium but not at reaction equilibrium, and having either the temperature, pressure, or residence time in the first vessel be greater than that in the second vessel. The examiner appreciates that Ridland does not teach this set of operating parameters but reasons that "if the skillful artisan in

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the art had desired to achieve the reaction equilibrium in the first vessel and the vapor-liquid equilibrium in the second vessel so as to prevent the formation of dimers and oligomers of the organic acids during the production of esters, it would have been obvious for the skillful artisan in the art to have applied the known chemical principle to the Ridland et al's process involved in the two reactors" (sentence bridging pages 8 and 9 of the answer). Manifestly, what the skilled artisan could have done if he so desired is not the proper inquiry for determining obviousness within the meaning of § 103. Certainly, appellant's specification is evidence of what one of ordinary skill in the art could do if so inclined. However, the mere fact that the prior art could be so modified does not support a conclusion of obviousness unless the prior art suggested the desirability of the modification. In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) and cases cited therein. Hence, in the absence of any teaching or suggestion in the prior art for operating the process of Ridland in accordance with the presently claimed steps, we are constrained to reverse the examiner's § 103 rejection.

The examiner's reliance on Datta as a "secondary" reference does not remedy the deficiencies of Ridland outlined above.

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In conclusion, based on the foregoing, the examiner's  
decision rejecting the appealed claims is reversed.

REVERSED

EDWARD C. KIMLIN	)	
Administrative Patent Judge	)	
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	)	
PETER F. KRATZ	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
LINDA R. POTEATE	)	
Administrative Patent Judge	)	

EK/RWK

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WILLIAMS, MORGAN & AMERSON, P.C.  
10333 RICHMOND, SUITE 1100  
HOUSTON, TX 77042