

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YUNG K. KIM, DAVID STEPHEN KARPOVICH,
WILLIAM H. CAMPBELL, and LING YANG

Appeal No. 2006-0900
Application No. 10/368,915

ON BRIEF

Before KIMLIN, PAK, and TIMM, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 39-41, 43, 45, and 46. Claims 42, 44, 47, and 48 stand withdrawn from consideration as being directed to a non-elected invention.

Claim 39 is illustrative:

39. A purification process comprising:

providing a silicone derivatized macromolecule selected from the group consisting of dendrimers and hyperbranched polymers supported on a particulate support or separation membrane, and then

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passing a liquid to be purified through a bed of particles of said silicone derivatized macromolecule on a particular support or through a separation membrane having said silicone derivatized macromolecule supported thereon.

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

Dvornic et al. (Dvornic)	5,902,863	May 11, 1999
Neumann-Rodekirch et al. (Neumann) (German Patent)	196 21 741 A1	Dec. 4, 1997

Appellants' claimed invention is directed to a purification process which entails providing a silicone derivatized macromolecule of the recited group on a particulate support or separation membrane, and passing a liquid to be purified through the support or separation membrane. According to appellants, the claimed support or separation membrane comprising a silicone derivatized macromolecule is "useful for separating chiral components from biological or chemical processes in pharmaceutical, biopharmaceutical and/or chemical process applications" (page 2 of Brief, last paragraph).

Appealed claims 39-41, 43, 45, and 46 stand rejected under 35 U.S.C. § 103 as being unpatentable over Neumann in view of Dvornic.

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Appellants have not presented separate arguments for any particular claims on appeal. Accordingly, all the appealed claims stand or fall together with claim 39.

We have thoroughly reviewed each of appellants' arguments for patentability, as well as the declaration evidence relied upon in support thereof. However, we are in complete agreement with the examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the examiner's rejection for essentially those reasons expressed in the Answer, and we add the following primarily for emphasis.

Appellants do not dispute the examiner's legal conclusion that it would have been obvious for one of ordinary skill in the art to employ the silicone derivatized macromolecules of Dvornic, which are essentially the same as the claimed macromolecules, as the chemically bound dendrimers in the chromatographic separation process of Neumann. Rather, it is appellants' contention that the claimed "purification process" is not a liquid chromatographic process and, therefore, the disclosures of Neumann and Dvornic are not directed to the claimed purification process. Appellants assert there is a

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meaningful distinction between the liquid chromatography of Neumann and Dvornic and the claimed "purification process involving the step of passing a liquid to be purified through a bed of particles of a silicone derivatized macromolecule on a particulate support or through a separation membrane having said silicone derivatized macromolecules supported thereon" (page 5 of Brief, first paragraph). Appellants maintain that although the present specification discloses liquid chromatography as an embodiment, the claimed purification process is a distinctly different embodiment of the disclosed invention.

Like the examiner, we find no merit in appellants' argument that there is a substantive, meaningful distinction between purification processes within the scope of the appealed claims and the liquid chromatography disclosed by the applied references. We agree with the examiner that chromatography is a type of purification process, and the examiner properly points out that chromatography processes are classified in subclasses 635 and 656-659 in Class 210 entitled "Liquid Purification or Separation." As emphasized by the examiner, the process of Neumann performs all the steps recited in the appealed claims. Also, we agree with the examiner that the present specification

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does not define the claimed purification process in any way that distinguishes it over liquid chromatography.

Appellants rely upon the Rule 1.132 Declaration of Melvin Cabey as evidence of unexpected results. However, we concur with the examiner that the declaration evidence does not establish unexpected results insofar as it does not present a comparison to the closest prior art, is not commensurate in scope with the degree of protection sought by the appealed claims, and does not establish that the reported results are truly unexpected. Indeed, the Declaration fails to provide any comparison with a prior art process, let alone the process of Neumann. It is not sufficient for appellants to simply argue that "[s]ince Neumann doesn't purify anything, any degree of purification shown would demonstrate new and unexpected results compared to Neumann" (page 7 of Brief, fourth paragraph). Moreover, a liquid that passes through a liquid chromatography process necessarily is purified to some extent. Also, the Declaration is not commensurate in scope with the appealed claims since the data given appears to be limited to metal removal. Also, the examiner makes a salient point that appellants' Attachment F seems to indicate that the claimed invention encompasses chromatographic processes.

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In conclusion, based on the foregoing and the reasons well-stated by the examiner, it is our judgment that the evidence of obviousness presented by the examiner outweighs the evidence of nonobviousness proffered by appellants. Accordingly, the examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv) (effective Sep. 13, 2004; 69 Fed. Reg. 49960 (Aug. 12, 2004); 1286 Off. Gaz. Pat. Office 21 (Sep. 7, 2004)).

AFFIRMED

EDWARD C. KIMLIN)
Administrative Patent Judge)
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CHUNG K. PAK) BOARD OF PATENT
Administrative Patent Judge) APPEALS AND
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CATHERINE TIMM)
Administrative Patent Judge)

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