

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

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* ERIC M. LEPROUST, LALITHA REDDY  
and MICHEL G.M. PERBOST

---

Appeal 2006-2202  
Application 10/322,280  
Technology Center 1700

---

Decided: September 27, 2006

---

Before PAK, WARREN, and JEFFREY T. SMITH, *Administrative Patent Judges*.

JEFFREY T. SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal the Examiner's final rejection of claims 1, 3 to 6, and 43 to 51. Claim 2 has been withdrawn from consideration. We have jurisdiction under 35 U.S.C. § 134.

We REVERSE.

Appeal 2006-2202  
Application 10/322,280

## CITATION OF REFERENCES

The Examiner relies on the following references in rejecting the appealed subject matter:

Deitz	US 4,518,562	May 21, 1985
Baldeschwieler	US 6,015,880	Jan. 18, 2000
Kristiansson	US 6,355,216 B1	Mar. 12, 2002
Nishi	US 6,590,633 B1	Jul. 8, 2003

The Examiner has rejected claims 1, 3 to 6, 43 to 45, and 48 to 49 under 35 U.S.C. § 103(a) as obvious over Baldeschwieler in view of Kristiansson and Deitz. Claims 46, 47, and 50 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Baldeschwieler in view of Kristiansson and Deitz, and further in view of Nishi. (Answer 3-6).

## DISCUSSION

Appellants' invention relates to methods of fabricating micro arrays in ozone-reduced environments. According to the Specification, an array or micro array refers to "any two-dimensional or substantially two-dimensional arrangement of addressable regions bearing a particular chemical moiety or moieties (*e.g.*, biopolymers such as polynucleotide sequences (nucleic acids), polypeptides (*e.g.*, proteins), etc.) associated with that region." (Specification 5). Representative claims 1, 3, and 48, as presented in the Brief, appear below:

Appeal 2006-2202  
Application 10/322,280

1. A method, comprising:

removing ozone from an environment by filtration to provide an ozone-reduced environment; and

fabricating a micro array in said ozone-reduced environment.

3. A method for fabricating a micro array, comprising: in an ozone-filtered environment:

(a) depositing a first polymer on a substrate surface;

(b) depositing a second polymer on said first polymer;

(c) drying said polymers; and

(d) curing said polymers to attach them to said substrate surface.

48. A method, comprising:

removing ozone from an environment by filtration to provide an ozone-reduced environment, wherein said ozone reduced environment is produced by filtering an atmosphere comprising a gas selected from the group consisting of: ozone, carbon dioxide, carbon monoxide, hydrogen, helium, neon, zenon, chlorine, fluorine, oxygen, and argon through a carbon filter; and

fabricating a micro array in said ozone-reduced environment.

In rendering this Decision, we have considered the Examiner's position presented in the Answer mailed March 31, 2006 and Appellants' position in the Brief filed February 15, 2006. Upon careful consideration of

Appeal 2006-2202  
Application 10/322,280

the Examiner and Appellants' position, we reverse the aforementioned rejections. Our reasons follow.

In rejecting the appealed claims, the Examiner relies on the Baldeschwieler reference for describing methods of making micro arrays. The Examiner recognizes that Baldeschwieler does not discuss removing ozone from the environment by filtration. However, it is the Examiner's position that "nitrogen generally contains traces of air components such as ozone, oxygen, carbon dioxide, monoxide, etc. since it is conventionally prepared from air." (Answer 4). The Examiner then asserts that Kristiansson teaches that ozone molecules create free radicals which change and destroy biomolecules. The Examiner further asserts that Deitz teaches carbon filters suitable for removing ozone and water vapor. (Answer 4-5). Relying on the above teachings, the Examiner concludes that it would have been obvious to a person of ordinary skill in the art to filter Baldeschwieler's nitrogen to obtain dry nitrogen that is free of ozone in the method of Baldeschwieler. (Answer 4).

On this record, the Examiner has not provided evidentiary support for the position that "nitrogen generally contains traces of air components such as ozone." See *In re Lee*, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002). ("This factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority.") The Examiner has not established that ozone is necessarily present in the nitrogen employed in the Baldeschwieler reference. An

Appeal 2006-2202  
Application 10/322,280

example in Baldeschwieler refers to a dry nitrogen-filled glove box. This disclosure alone is insufficient to establish that impurities are necessarily present as asserted by the Examiner. Further, even if we were to accept the Examiner's position that ozone was present as an impurity in the dry nitrogen of Baldeschwieler, we have not been directed to any evidence that establishes that the amount present is detrimental to the method of Baldeschwieler. That is, the Examiner has not shown that the amount of ozone allegedly present in dry nitrogen has an unacceptable detrimental effect on forming micro arrays in the method disclosed by Baldeschwieler. As such, the Examiner has not established that it would have been *prima facie* obvious to a person of ordinary skill in the art to use filtration to remove ozone from dry nitrogen taught in the Baldeschwieler reference.

For the foregoing reasons, we reverse the Examiner's rejections of claims 1, 3 to 6, and 43 to 51. Since we reverse the Examiner's rejections for lack of a *prima facie* case of obviousness, we need not reach the issue of the sufficiency of the evidence allegedly demonstrating unexpected results. *See In re Geiger*, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987).

#### OTHER ISSUES

Prior to disposition of the present application, the Examiner should consider the document entitled "Effects Of Atmospheric Ozone Or Micro Array Data Quality" presented as Exhibit A in Appellants' Brief to determine whether it affects the patentability of the claimed subject matter.

Appeal 2006-2202  
Application 10/322,280

**CONCLUSION**

All of the Examiner's rejections are reversed.

**REVERSED**

clj

Agilent Technologies, Inc.  
Intellectual Property Administration  
Legal Dept., DL429  
P.O. Box 7599  
Loveland, CO 80537-0599