



UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON, D.C. 20240

April 6, 1978

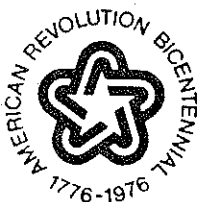
Ray E. Snyder, Esq.
Dulin, Thienpont, Potthast
& Snyder, Ltd.
Suite 606
135 South LaSalle Street
Chicago, Illinois 60603

Dear Mr. Snyder:

Subject: Invention - "Isotope Enrichment and/or Separation by Bursting Bubbles," by Joseph F. Stampfer and William S. Hitchcock (OWRT-2812) - University of Missouri/OWRT Grant Project A-098-MO, entitled "The Role of the Surface Microlayer of Water in the Distribution and Fate of Trace Organic Contaminants"

This is in response to your letters of January 6, 1978, and March 13, 1978, inquiring about the availability of "greater rights" in the subject invention for the above-identified grantee. In reporting the invention to us, the grantee noted that critical experiments therefor were performed in conjunction with the above-entitled project. We are advised by the Office of Water Research and Technology (OWRT) that Government funding for this project was authorized under OWRT's grants to the University of Missouri, Nos. 14-34-0001-7053 and -7054, for the period between July 1, 1976, and September 30, 1977, and the disposition of patent rights under these grants is governed by the provisions of the Patent Article made applicable thereto by a 1965 Memorandum of Understanding between the University and OWRT.

The invention is reported as being a method to enrich the concentration of one isotope of an element with respect to other isotopes of the same element, which in this case are the 32 and 33 isotopes of phosphorous. The method calls for passage of air bubbles through an aqueous solution containing the P32 and P33 isotopes to produce an aerosol when the bubble bursts at the surface which contains a higher percentage of the P32 isotope than did the original bulk liquid. As a result, the composition of the bulk liquid is altered, and repeated treatment of the aerosols and/or the solution increases the enrichment.



Our review of OWRT's files pertaining to the above indicated that the objectives of the instant project are development of a radiochemical method or analytical technique to determine the concentration of trace contaminants in the surface layer of water in relation to such a determination in bulk sampling for such contaminants, investigation of the rate of exchange of contaminants from the water surface to the atmosphere by ejected aerosol volatilization, and determination of both the concentration of the contaminants in the surface microlayer and on the ejected aerosol particles. Use is made of radioactive tagging of water surface active materials, and surface concentrations are determined by counting beta particles emitted on decay of the radioactive tag. Further, air is bubbled through the solution so as to eject aerosols which are collected by impaction. A count of the collected aerosols determines the amount of surface active materials which are removed by the air bubble process.

Although the procedure to concentrate an isotope which characterizes the present invention is evidently not a given purpose of the project specified in this case, it nevertheless seems clear to us that the techniques used for the project largely served to facilitate the making of the invention. Moreover, the invention was made by a principal investigator of the project at a time he pursued the work of the project. Thus, we find that the invention was made in the course of the project, and is to be considered a Subject Invention under the terms of the aforesaid Patent Article.^{1/} Provisions of this Patent Article obtain for the Government all domestic right, title, and interest in any such Subject Invention, subject to the reservation for the grantee of a nonexclusive, royalty-free license to practice the Subject Invention.^{2/} However,

^{1/} In the Patent Article, paragraph A.(6) reads "Subject Invention" means any invention, discovery, improvement, or development (whether or not patentable) made in the course of or under this agreement or any contract (of any tier) thereunder, and paragraph A.(5) reads "Made" when used in connection with any Subject Invention means the conception or first actual reduction to practice of such invention.

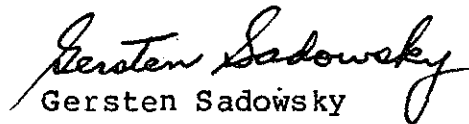
Use in definition A.6 of the phrase "in the course of" is recognized to mean an invention made in performing, or as a result of performing the work required by an agreement, and that would be true even though the invention was not specifically sought in the terms of the agreement; see Fitch Braun v. AEC, 181 U.S.P.Q. 41, February 28, 1978 (C.C.P.A.).

^{2/} Patent Article, Paragraph B.(2)

we call your attention to the Patent Article's section C under which "greater rights" in possible foreign patents on the invention may be secured by the grantee upon written request therefor.

In view of the foregoing, we must deny the request herein for "greater rights." We would reconsider this denial if we were presented with a showing of other facts and circumstances surrounding the making of the invention which would support a different conclusion. Absent grantee's early response respecting the requisite showing, we will assume our finding herein stands correct.

The increased latitude in releasing "greater rights" mentioned in your letter of January 6, 1978, follows from the patent policy modification to the organic Acts of the OWRT agencies made by the June 22, 1976, OWRT Appropriations Act, Public Law 94-316. The modification makes applicable to OWRT the patent policy of the December 31, 1974, ERDA (now Department of Energy) Federal Nonnuclear Energy, Research and Development Act, P.L. 93-577, section 9 and 10. Under the ERDA patent policy, OWRT is authorized to entertain contractor and grantee requests for rights greater than a nonexclusive, royalty-free license in Subject Inventions wherein all right, title, and interest is otherwise reserved to the Government. We understand that a renewal Memorandum of Understanding between the University and OWRT, made effective October 1, 1977, contains a Patent Article reflecting the modified patent policy.


Gersten Sadowsky

cc: Director, OWRT