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Managing Editor

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Yale University
New Haven, Connecticut 06511

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EDITORIAL STATEMENT TO CONTRIBUTORS

Since its inception, the basic purpose of Radiocarbon has been the publication of compilations of ^{14}C dates produced by various laboratories. These lists are extremely useful for the dissemination of basic ^{14}C information.

In recent years, Radiocarbon has also been publishing technical and interpretative articles on all aspects of ^{14}C . The editors and readers agree that this expansion is broadening the scope of the Journal. This year, the editors have published the Proceedings of the Tenth International Radiocarbon Conference that was held at Bern and Heidelberg, August 19-26, 1979. Volume 22, Nos. 2 and 3, 1980 contained these proceedings. Subscribers receive these issues and the two regular numbers of Volume 22 at the regular subscription price, \$60.00 for institutions and \$40.00 for individuals. Non-subscribers may order the special publications separately at \$60.00. Volume 23, 1981 will return to its usual format of three numbers per volume.

As a result of publishing the proceedings, another section will be added to our regular issues, "Notes and Comments". Authors are invited to extend discussions or raise pertinent questions to the results of scientific investigations that have appeared on our pages. The section will include short, technical notes to relay information concerning innovative sample preparation procedures. Laboratories may also seek assistance in technical aspects of radiocarbon dating.

All correspondence, manuscripts and orders for the special issues should be sent to the Managing Editor, Radiocarbon, Kline Geology Laboratory, Yale University, 210 Whitney Ave, PO Box 6666, New Haven, Connecticut 06511.

The Editors

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All correspondence and manuscripts should be addressed to the Managing Editor, RADIOCARBON, Kline Geology Laboratory, Yale University, 210 Whitney Ave, PO Box 6666, New Haven, Connecticut 06511.

INSTRUCTIONS TO CONTRIBUTORS

Manuscripts of radiocarbon papers should follow the recommendations in *Suggestions to Authors*, 5th ed.* All copy (including the bibliography) must be typewritten in *double space*. Manuscripts for vol 23, no. 2 must be submitted in *duplicate* before January 1, 1981.

General or technical articles should follow the recommendations above and the editorial style of the *American Journal of Science*. Date lists should follow the format described in detail in the literature mailed to all laboratories each year.

Illustrations should include explanation of symbols used. Copy that cannot be reproduced cannot be accepted; it should be capable of reduction to not more than 10 by 17.5, all lettering being at least 1/16 inch high after reduction. When necessary, one large map or table can be accepted, if it will not exceed 17.5 inches in width after reduction. Line drawings should be in black India ink on white drawing board, tracing cloth, or coordinate paper printed in blue and should be accompanied by clear ozalids or reduced photographs for use by the reviewers. Photographs should be positive prints. Photostatic and typewritten material cannot be accepted as copy for illustrations. *Plates* (photographs) and *figures* (line drawings) should each be numbered consecutively through each article, using arabic numerals. If two photographs form one plate, they are figures A and B of that plate. **All measurements should be given in SI (metric units).**

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Back issues. Back issues (vols 1-9) are available at a reduced rate to subscribers at \$52.00 a set, including postage; vols 10-14 are \$20.00 each for individual subscribers and \$30.00 for institutions; vols 15-22 are \$40.00 each for individuals and \$60.00 for institutions; single back issues \$20.00 each; comprehensive index \$10.00 each. Proceedings, vol 22, nos. 2 and 3 are \$35.00.

* Suggestions to authors of the reports of the United States Geological Survey, 5th ed, Washington, DC, 1958 (Government Printing Office, \$1.75).

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WILLARD F LIBBY (1908-1980)

"... chance favors the mind that is prepared." (Pasteur)



Carbon-14, or radiocarbon, was invented before it was known in nature—it was initially produced in a University of California cyclotron as part of a biochemical research project. An abundant source of a long-lived isotope of carbon paved the way to develop the path of carbon in photosynthesis, which led to a 1950 Nobel Prize for Melvin Calvin. Meanwhile, at the University of Chicago, Willard Libby read of the synthesis of the isotope and was able to add two significant observations: a) thermal neutrons in the appropriate energy range existed in the upper atmosphere as the result of cosmic-ray interactions; and b) the atmosphere is 78 percent nitrogen.

A session with his slide-rule indicated an equilibrium concentration of ^{14}C in living material within the detection range of counting equipment then available and an experiment with methane from a Baltimore sewage plant provided the initial material. Here again preparation was the key, for Libby was experimenting with a "screen-wall" counter that increased counter sensitivity for weakly emitting radioisotopes. A few grams of carbon deposited in the counter established the theory and a visit to the University of Chicago Museum of Egyptology provided the test.

Visualize the distress of the Museum Director, guardian of priceless antiquities, being asked to relinquish several grams of irreplaceable wood, so that some crazy chemist could burn it! Needless to say, tens of thousands of radiocarbon dates later, the method confirmed the theory and even the discrepancies continue to stimulate research by physicists, geologists, and archaeologists.

For his seminal role in radiocarbon dating, Willard Libby received the Nobel Prize in Chemistry in 1960. At least seven honorary degrees and numerous awards, prizes, and medals, as well as participation in developmental and advisory committees of the United States Atomic Energy Commission, plus more than 300 published journal articles, reviews, chapters, and books attest to his pre-eminence in the field of nuclear chemistry. More than 100 radiocarbon dating laboratories, thousands of Quaternary investigators, and tens of thousands of radiocarbon dates confirm Willard Libby's legacy.

The editors of *RADIOCARBON*, together with students of the Quaternary from around the world, join in tribute to the father of radiocarbon dating.