

LSC 94
International Conference
Advances in Liquid
Scintillation Spectrometry
Glasgow, Scotland
8-12 August 1994

LSC 94 continues the series of conferences held in Gatlinburg, USA in 1989 and Vienna, Austria in 1992. The conference venue will be the Royal Scottish Academy of Music and Drama in Glasgow, Scotland, from 8-12 August 1994. This is the week before the 15th International Radiocarbon Conference, which will also be held at the same location.

The aims of the conference are to promote and encourage the free exchange of information on liquid scintillation spectrometry and related scintillation techniques.

The proposed scientific themes are:
New Instrumentation
Advances in Liquid and Solid Scintillators
Bioscience Applications
Environmental Applications
Alpha Counting
Cerenkov Counting
Data Handling Algorithms/Computer Applications and Software
Sample Handling and Disposal
Other Scintillation Techniques

Contributed papers are welcomed within the themes outlined above and authors will be required to submit a 500-word abstract for refereeing. There will also be a major exhibition of the latest commercial instrumentation for liquid scintillation spectrometry and displays of ancillary equipment, supplies and books.

For further conference information please contact the Conference Secretariat
Gordon Cook, Scottish Universities Research & Reactor Centre, East Kilbride
Glasgow G75 0QU, Scotland
Telephone: (44)3552-23332 Fax: (44)3552 29898

15th International Radiocarbon Conference

Glasgow, Scotland
15–19 August 1994

The 15th International Radiocarbon Conference will be held in Glasgow, Scotland in the Royal Scottish Academy of Music and Drama (RSAMD) from 15–19 August 1994, the week immediately following the International Conference on Advances in Liquid Scintillation Spectrometry.

The broad themes of the conference are:

^{14}C in Archaeology
Advances in Beta Counting
Accelerator Techniques
Calibration of the ^{14}C Time Scale
 ^{14}C As a Tracer of the Dynamic Carbon Cycle in Current Environments
 ^{14}C In the Reconstruction of Past Environments

There will be both poster and oral sessions, with no parallel sessions. There will also be opportunities for exhibiting equipment, computer software and books. To complement the main conference program, a number of workshops will be held on the weekend of 13 and 14 August, on topics including ^{14}C in soils, archaeology, and the ^{14}C intercomparison (TIRI). Other workshop topics are currently under discussion. Accommodation, all within walking distance of the RSAMD, ranges from University Halls of Residence to five star hotels. A full social program is also planned, with a welcome party, civic reception, outing, and conference dinner.

Submission of Papers

We welcome contributed papers within the broad themes outlined above. Authors will be required to submit a 500-word abstract for refereeing by the Scientific Committee. Within the time constraints posed by our aim of having no parallel sessions for all presentations, the committee will determine the appropriate session and manner of presentation for the accepted papers.

For more information please contact Marian Scott or the Conference Secretariat,
Mrs. M. Smith, Department of Statistics
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MYRA@UK.AC.GLASGOW.STATISTICS

RADIOCARBON Announces the Publication of the Following:

CALIBRATION 1993

Volume 35, No. 1, 1993 @ \$40.00 (\$50.00 as of June 1, 1993)

Calibration 1993 (Minze Stuiver, editor) is a hardcover update of the **1986 Calibration Issue** (Volume 28, No. 2B), one of our most frequently ordered issues. It contains new papers with ^{14}C data sets that extend and refine the most widely used source of radiocarbon age calibrations. A diskette of CALIB 3.0.3, the IBM PC-based calibration program (Stuiver and Reimer) is provided with the issue. The program allows for calibrations from "conventional radiocarbon years" to calendar dates for the past 18,360 ^{14}C years.

**Radiocarbon After Four Decades:
An Interdisciplinary Perspective**

*Editors: R. E. Taylor, Austin Long and R. S. Kra
Special Hardcover Edition Published by Radiocarbon and
Springer-Verlag, New York
\$89.00 List Price; \$66.25 for Subscribers to RADIOCARBON*

Radiocarbon After Four Decades: An Interdisciplinary Perspective commemorates the 40th anniversary of radiocarbon dating and documents the major contributions of ^{14}C dating to archaeology, biomedical research, earth sciences, environmental studies, hydrology, the natural carbon cycle, oceanography and palynology. The volume serves as a synthesis of past, present and future research in the field. It has been co-published with Springer-Verlag, and is offered outside of our regular issues; *RADIOCARBON* subscribers receive a 25% discount off the \$89.00 list price and pay only \$66.25. 596 pages.

**Proceedings of the 14th International Radiocarbon Conference
Tucson, Arizona, 20–24 May 1991
Volume 34, No. 3, 1992 @ \$65.00**

This Conference Proceedings documents state-of-the-art research in ^{14}C dating and cosmogenic isotopes. It contains papers on recent developments in Sample Preparation and Measurement Techniques, Applied Isotope Geochemistry, Global ^{14}C Production and Variation, Paleoclimatology and Archaeological Applications; Workshop Reports are included. 665 pages. The Proceedings issue is part of the 1992 subscription.

FORTHCOMING . . .

LSC 92: Proceedings of the International Conference on Advances in Liquid Scintillation Spectrometry, 14–18 September 1992, Vienna, Austria. Volume editors: John E. Noakes, Henry A. Polach and Franz Schönhofer. (Outside journal series)
Applications of Radiocarbon Dating in the Former Soviet Union and Eastern Europe. Special editor: Jaan-Mati Punning, Tallinn, Estonia. *RADIOCARBON*, Vol. 35, No. 3, 1993.
Late Quaternary Chronology and Paleoclimates of the Eastern Mediterranean. Volume editors: Ofer Bar-Yosef and Renee Kra, 1994 (Outside journal series)
 ^{14}C Dynamics in Soils. Special editors: Peter Becker-Heidmann, D. D. Harkness, Eldor Paul and S. E. Trumbore. *RADIOCARBON*, Vol. 36, No. 1, 1994.

RADIOCARBON 1993 PRICE LIST

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|---|------------------------------|
| NEW CALIBRATION 1993 (Vol. 35, No. 1, 1993) - - before 1 June 1993 - \$40.00; after 1 June 1993 | \$ 50.00 |
| Proceedings of the 14th International Radiocarbon Conference (Vol. 34, No. 3, 1992) | \$ 65.00 |
| Proceedings of the International Workshop on Intercomparison of ¹⁴ C Laboratories (Vol. 32, No. 3, 1990) | \$ 40.00 |
| Proceedings of the 13th International Radiocarbon Conference (Vol. 31, No. 3, 1989) | \$ 60.00 |
| Proceedings of the 12th International Radiocarbon Conference (Vol. 28, Nos. 2A & 2B, 1986 – available separately at \$30.00 each) | \$ 60.00 |
| Proceedings of the 11th International Radiocarbon Conference (Vol. 25, No. 2, 1983) | \$ 50.00 |
| Proceedings of the 10th International Radiocarbon Conference (Vol. 22, Nos. 2 & 3, 1980) | \$ 60.00 |
| Vol. 35, Nos. 1–3, 1993 (includes NEW CALIBRATION 1993) | \$105.00/vol. Inst.* |
| | \$ 73.50/vol. Ind. |
| | \$ 36.75/vol. Stud.** |
| Vol. 34, Nos. 1–3, 1992 (includes Proceedings) | \$105.00/vol. Inst. |
| | \$ 73.50/vol. Ind. |
| Vol. 33, Nos. 1–3, 1991 | \$ 94.50/vol. Inst. |
| | \$ 63.00/vol. Ind. |
| Vol. 32, Nos. 1–3, 1990 (includes Glasgow Proceedings) | \$ 94.50/vol. Inst. |
| | \$ 63.00/vol. Ind. |
| Vol. 31, Nos. 1–3, 1989 (includes Proceedings) | \$ 90.00/vol. Inst. |
| | \$ 60.00/vol. Ind. |
| Vol. 30, Nos. 1–3, 1988 | \$ 85.00/vol. Inst. |
| | \$ 55.00/vol. Ind. |
| Vols. 15–29, 1973–1987 | \$ 75.00/vol. Inst.† |
| | \$ 50.00/vol. Ind. |
| Vols. 10–14, 1968–1987 | \$ 50.00/vol.† |
| Vols. 1–9, 1959–1967 | \$ 25.00/vol. |
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NOTICE TO READERS AND CONTRIBUTORS

The purpose of *RADIOCARBON* is to publish technical and interpretative articles on all aspects of ^{14}C and other cosmogenic isotopes. In addition, we present regional compilations of published and unpublished dates along with interpretative text. Besides the triennial Proceedings of Radiocarbon Conferences, we publish Proceedings of conferences in related fields. Organizers interested in such arrangements should contact the Managing Editor for information.

Our regular issues include NOTES AND COMMENTS, LETTERS TO THE EDITOR, RADIOCARBON UPDATES and ANNOUNCEMENTS. Authors are invited to extend discussions or raise pertinent questions regarding the results of investigations that have appeared on our pages. These sections also include short technical notes to disseminate information concerning innovative sample preparation procedures. Laboratories may also seek assistance in technical aspects of radiocarbon dating. Book reviews are encouraged.

Manuscripts. Papers may be submitted on floppy diskettes and as printed copy. When submitting a manuscript, include three printed copies, double-spaced. When the final copy is prepared after review, please provide a floppy diskette along with one printed copy. We will accept, in order of preference, WordPerfect 5.1 or 5.0, Microsoft Word, Wordstar or any IBM word-processing software program. ASCII files, MS DOS and CPM-formatted diskettes are also acceptable. The diskettes should be either $3\frac{1}{2}$ " (720 k or 1.44 mb) or $5\frac{1}{4}$ " (360 k or 1.2 mb). Papers should follow the recommendations in INSTRUCTIONS TO AUTHORS (*RADIOCARBON*, 1992, vol. 34, no. 1, p. 177–185). Offprints are available upon request. Our deadlines for submitting manuscripts are:

| <i>For</i> | <i>Date</i> |
|----------------------|-------------------|
| Vol. 36, No. 1, 1994 | September 1, 1993 |
| Vol. 36, No. 2, 1994 | January 1, 1994 |
| Vol. 36, No. 3, 1994 | May 1, 1994 |

Half-life of ^{14}C . In accordance with the decision of the Fifth Radiocarbon Dating Conference, Cambridge, England, 1962, all dates published in this volume (as in previous volumes) are based on the Libby value, 5568 yr, for the half-life. This decision was reaffirmed at the 11th International Radiocarbon Conference in Seattle, Washington, 1982. Because of various uncertainties, when ^{14}C measurements are expressed as dates in years BP, the accuracy of the dates is limited, and refinements that take some but not all uncertainties into account may be misleading. The mean of three recent determinations of the half-life, 5730 ± 40 yr, (*Nature*, 1962, vol. 195, no. 4845, p. 984), is regarded as the best value presently available. Published dates in years BP can be converted to this basis by multiplying them by 1.03.

AD/BC Dates. In accordance with the decision of the Ninth International Radiocarbon Conference, Los Angeles and San Diego, California, 1976, the designation of AD/BC, obtained by subtracting AD 1950 from conventional BP determinations is discontinued in *RADIOCARBON*. Authors or submitters may include calendar estimates as a comment, and report these estimates as cal AD/BC, citing the specific calibration curve used to obtain the estimate. Calibrated dates should be reported as "cal BP" or "cal AD/BC" according to the consensus of the Twelfth International Radiocarbon Conference, Trondheim, Norway, 1985.

Measuring $\delta^{14}\text{C}$. In Volume 3, 1961, we endorsed the notation, Δ (Lamont VIII, 1961), for geochemical measurements of ^{14}C activity, corrected for isotopic fractionation in samples and in the NBS oxalic-acid standard. The value of $\delta^{14}\text{C}$ that entered the calculation of Δ was defined by reference to Lamont VI, 1959, and was corrected for age. This fact has been lost sight of, by editors as well as by authors, and recent papers have used $\delta^{14}\text{C}$ as the observed deviation from the standard. At the New Zealand Radiocarbon Dating Conference it was recommended to use $\delta^{14}\text{C}$ only for age-corrected samples. Without an age correction, the value should then be reported as percent of modern relative to 0.95 NBS oxalic acid (Proceedings of the 8th Conference on Radiocarbon Dating, Wellington, New Zealand, 1972). The Ninth International Radiocarbon Conference, Los Angeles and San Diego, California, 1976, recommended that the reference standard, 0.95 NBS oxalic acid activity, be normalized to $\delta^{13}\text{C} = -19\text{‰}$.

In several fields, however, age corrections are not possible. $\delta^{14}\text{C}$ and Δ , uncorrected for age, have been used extensively in oceanography, and are an integral part of models and theories. Thus, for the present, we continue the editorial policy of using Δ notations for samples not corrected for age.

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