Radiocarbon

An International Journal of Cosmogenic Isotope Research

VOLUME 68 • NUMBER 5 • 2026







Editor
A.J.T. Jull

CAMBRIDGE UNIVERSITY PRESS

https://doi.org/10.1017/RDC.2025.10131 Published online by Cambridge University Press

Radiocarbon
An International Journal of Cosmogenic Isotope Research

EDITOR
A. J. T. Jull · University of Arizona

MANAGING EDITOR
Kimberley Tanner Elliott · University of Arizona

ASSOCIATE EDITORS

Edouard Bard · Collège de France
Nancy Beavan · ESR, New Zealand
Warren Beck · University of Arizona
Ravi Bhushan · PRL, Gujurat, India
Elisabetta Boaretto · Weizmann Institute
Christopher Bronk Ramsey · Oxford University
George S. Burr · University of Arizona
Lucio Calcagnile · University of Salento, Lecce, Italy
Alexander Cherkinsky · University of Georgia
Owen K. Davis · University of Arizona
Ellen R. M. Druffel · University of California-Irvine
Pieter Grootes · Christian-Albrechts University
Carla S. Hadden · University of Georgia
Irka Hajdas · ETH Zurich
Derek Hamilton · University of Glasgow
Christine Hatté · LSCE, Gif-sur-Yvette
Gregory Hodgins · University of Arizona
Quan Hua · ANSTO, Australia
Yaroslav Kuzmin · Russian Academy of Sciences
Steven W. Leavitt · University of Arizona
Susanne Lindauer · CEZA, Mannheim
Kita Macario · UFF, Rio de Janiero
Mihály Molnár · Lab. of Envir. Studies, Hungary
Toshio Nakamura · Nagoya University
Jesper Olsen · Aarhus AMS Center
Charlotte Pearson · University of Arizona
Giovanni L. Pesce · Northumbria University, UK
Pavel Povinec · Comenius University, Slovakia
Gianluca Quarta · University of Salento, Lecce, Italy
Andrzej Rakowski · Silesian Univ. of Tech., Gliwice
Paula J. Reimer · Queen's University Belfast
E. Marian Scott · University of Glasgow
Corina Solís · UNAM, Mexico City
John R. Southon · University of California-Irvine
Johannes van der Plicht · Groningen University
Ryan Venturelli · Colorado School of Mines
Rachel Wood · Oxford University, UK
Antoine Zazzo · Mus. Nat. d'Histoire naturelle
Weijian Zhou · Inst. of Earth Environ., Chinese Acad. of Sci.

Radiocarbon (ISSN 0033-8222) is published six times per year by Cambridge University Press, One Liberty Plaza 20th Floor New York, NY 10006. © 2026 by the Arizona Board of Regents on behalf of the University of Arizona. All rights reserved.

Editorial Office
Communications should be addressed to the Managing Editor, *Radiocarbon*, Department of Geosciences, The University of Arizona, 1040 E. 4th St., Rm. 208, Tucson, AZ 85721 USA. Tel.: +1 (520) 621-0641; Email: kimelliott@arizona.edu. Contributors should consult the Instructions for Contributors, which is available on the journal's Web site: cambridge.org/rdc.

Subscriptions
Annual subscription rates for Volume 68, 2026: Institutional rate is (print and electronic) $828 in the USA, Canada, and Mexico, £535 + VAT elsewhere. Institutional rate (electronic only) $447 in the USA, Canada, and Mexico, £287 + VAT elsewhere. Individual rate is (print and electronic) $272 in the USA, Canada, and Mexico, £175 + VAT elsewhere. Individual rate (electronic only) $155 in the USA, Canada, and Mexico, £101 + VAT elsewhere. Please direct subscription inquiries and requests for back issues to Customer Services at Cambridge University Press, email: subscriptions_newyork@cambridge.org (USA, Canada, and Mexico) or journals@cambridge.org (outside of USA, Canada, and Mexico).

Advertising
To advertise in the journal email advertising@cambridge.org or telephone +1 (212) 337 5062 in the USA, Canada, or Mexico; email ad_sales@cambridge.org or telephone +44 (01223) 325898 in the rest of the world.

Abstracting and indexing
Radiocarbon is indexed and/or abstracted by the following sources: *Anthropological Index; Anthropological Literature; Art and Archaeology Technical Abstracts; Bibliography and Index of Geology* (GeoRef); *British Archaeological Bibliography; Chemical Abstracts; Chemistry Citation Index; Current Advances in Ecological and Environmental Sciences; Current Contents* (ISI); FRANCIS (Institut de l'Information Scientifique et Technique – CNRS); *Geographical Abstracts; Geological Abstracts; Oceanographic Literature Review; Science Citation Index; Social Sciences Citation Index*.

List of laboratories
Our current list of laboratories is at www.radiocarbon.org. Listings are self-reported. We ask all directors to provide their lab code designation, telephone and fax numbers, and email addresses. Changes should be reported to the managing editor. Labs are arranged in alphabetical order by country, and we include a list of current and past lab codes.

Permissions
No part of this publication may be reproduced, in any form or by any means, electronic, photocopying or otherwise, without permission in writing from Cambridge University Press. Policies, request forms and contacts are available at: http://journals.cambridge.org/action/rightsAndPermissions. Permission to copy (for users in the USA) is available from Copyright Clearance Center: http://www.copyright.com, email: info@copyright.com.

Postmaster: Send address changes to *Radiocarbon*, Cambridge University Press, One Liberty Plaza, New York, NY 10006, USA.

https://doi.org/10.1017/RDC.2025.10131 Published online by Cambridge University Press

Radiocarbon

Vol 68, Nr 5, 2026

CONTENTS

RESEARCH ARTICLES

An unknown scale: Radiocarbon and stable isotope analysis of keratinous pangolin scales
Erin Barr, Phoebe Meagher, Sabine Schoppe, Stewart Fallon and Rachel Wood 1071

Multi-analytical procedure for radiocarbon dating of Pozzolana mortars from public buildings in Pompeii
Sara Calandra, Valeria Amoretti, Serena Barone, Emma Cantisani, Giacomo Casa, Claudia Conti, Mariaelena Fedi, Matteo Maria Niccolò Franceschini, Tommaso Ismaelli, Lucia Liccioli, Barbara Salvadori and Gabriel Zuchtriegel 1085

Ramped oxidation and fine scale serial ^{14}C analyses of saltmarsh soils
Alex Houston, Mark Henry Garnett and William Edward Newns Austin 1101

Stable carbon and oxygen isotopic signatures in soil carbonate nodules for paleoclimate reconstruction in southwestern Taiwan
Hui Zhen Hum, Pei-Ling Wang, Wen-Shu Huang and Zeng-Yei Hseu 1111

Relative and radiocarbon (^{14}C) chronologies of the Elamite period from the Bashar River Basin, Iran
Morteza Khanipour, Reza Naseri, Zeinab Mahjoub, Barbara Helwing, Arkadiusz Sołtysiak and Motahare Feizabadi Farahani 1127

Bomb ^{14}C for tracing biochar mineralization in soil
Haichao Li, Harald Cederlund, Elias S. Azzi, Cecilia Sundberg and Erik Karltun 1146

Identifying activity pulses in radiocarbon sequences: A Monte Carlo kernel–minima approach and simulation assessment
Christian Mesía-Montenegro 1155

Reassessing the Early Neolithic Chronology of La Marmotta lakeshore settlement (Lake Bracciano, Anguillara Sabazia, Italy)
Berta Morell-Rovira, Izaro Quevedo-Semperena, Gerard Remolins, Niccolò Mazzucco, Miriam Cubas, Mario Mineo, Amaia Arranz-Otaegui and Juan F. Gibaja Bao 1169

New radiocarbon determinations for the late Pleistocene site of Badanj (Bosnia and Herzegovina): Implications for the Upper Palaeolithic sequence of the Adriatic basin
Aitor Ruiz-Redondo, Nikola Vukosavljević and Marc Vander Linden 1184

https://doi.org/10.1017/RDC.2025.10131 Published online by Cambridge University Press

Radiocarbon based fossil fuel CO_2 observations in megacity Delhi: Temporal variations and effect of COVID-19 restrictions
Rajveer Sharma, Ravi Kumar Kunchala, Sunil Ojha, Pankaj Kumar, Satinath Gargari and Sundeep Chopra 1197
Freshwater reservoir effect for mollusks in the lower and central Murray River, Australia
Chloe A. Stringer, Vladimir Levchenko, Quan Hua, Christopher Wilson, Jan-Hendrik May, Russell Drysdale, Jillian Garvey and Amy L. Prendergast 1212
Identifying fossil contamination from surface waters in native algae grown over floating artificial substrates
Daniel Tremmel, Carla Carvalho, Túlio César Aguiar Silva, Nívia Nascimento, Marcelo Correa Bernardes and Bruno Libardoni 1241
Radiocarbon chronology of post-Scythian burial practices in the Minusinsk Basin (Southern Siberia)
Evgeny Vodyasov, Igor Slusarenko, Olga Zaitceva, Oleg Mitko, Evgeniya Uchaneva, Ikue Otani, Yuri Teterin, Christian Leipe and Pavel Tarasov 1257
Effects of different storage conditions on the carbon isotopic compositions of dissolved inorganic carbon
Linan Wang, Jun Zhong, Maoliang Zhang, Si-Liang Li and Sheng Xu 1270
Performance assessment of the MICADAS system at Henan University, China
Yafei Wei, Min Ran, Zhengchuang Hui, Kaifeng Li, Yunpeng Yang, Wenhua Gao, Hongye Pei, Fanlei Meng, Xiaodong Miao and Zhaodong Feng 1286
A simple and effective method to remove hydrogen sulfide from fluid and gas samples prior to radiocarbon analysis of CO_2 gas and dissolved inorganic carbon
Li Xu, Alan Gagnon, Mark Roberts, Roberta L. Hansman, Kathryn Lynn Elder, Jeffrey S. Seewald, Rachel Harris and Susan Lang 1297

CASE STUDY

Radiocarbon-dated floral evidence from the Mauryan Empire, at *Ajatshatru-ka-Quilla Maidan*, Rajgir, Nalanda, India
Ruchita Yadav, Alka Srivastava, Rahul Srivastava, Dinesh Kumar Yadav, Srinivas Bikkina and Anil K. Pokharia 1305

TECHNICAL NOTE

Assessments of radiocarbon measurements of dissolved organic carbon for small/ultra-small samples by MICADAS
Wenjing Fu, Hailong Zhang, Zicheng Wang, Xuchen Wang and Meixun Zhao 1314

https://doi.org/10.1017/RDC.2025.10131 Published online by Cambridge University Press