

## LABORATORIES

\* Inactive Laboratories.

- <sup>1</sup> The H<sup>3</sup>-Laboratorium of this institute (directed by Klaus Fröhlich) should be addressed separately.
- <sup>1a</sup> List from this laboratory have not been submitted to RADIOCARBON. See Gdansk I, Acta Physica Polonica, vol. 22, p. 189, 1962; Gdansk II, *ibid.*, vol. 32, p. 39, 1967.
- <sup>2</sup> This designation Gif supersedes both Sa (Saclay) and Gsy (Gif-sur-Yvette). The only Gsy date list to be published is Gsy I (Coursaget and Le Run, RADIOCARBON, v. 8).
- <sup>3</sup> From January 1, 1961 the Gro numbers have been replaced by GrN numbers. "New" dates are referred to the NBS oxalic-acid standard.
- <sup>4</sup> Early dates from this laboratory were given a code designation that represents the name of the sponsoring institution, e.g. I ((AGS) for American Geographical Society (Heusser, RADIOCARBON SUPPLEMENT, v. 1).
- <sup>5</sup> Formerly Hazelton Nuclear: code designation HNS has been dropped.
- <sup>6</sup> Some dates from this laboratory were published with the code designation S (Pringle and others, 1957, Science, v. 125, p. 69-70).
- <sup>7</sup> See SM.
- <sup>8</sup> See Gif.
- <sup>9</sup> Some dates from this laboratory have been published with the code designation RC (Flint and Gale, 1958, AM. JOUR. SCI., v. 256, p. 698-714). The code designation MP published in volume 1 of the RADIOCARBON SUPPLEMENT (1959, p. 216) has been changed to SM in conformity with the wishes of the laboratory, and is explained by the change of the company's name from Magnolia Petroleum Company to Socony Mobil Oil Company, Inc.
- <sup>10</sup> Formerly Texas-Bio-Nuclear, then Kaman Instruments. The laboratory is no longer operating.

### A ARIZONA

Dr. Austin Long  
Laboratory of Isotope Geochemistry  
Geochronology Department  
University of Arizona  
Tucson, Arizona 85721

### ANL ARGONNE NATIONAL LABORATORY

Dr. F. T. Hageman  
Argonne National Laboratory  
9700 South Cass Avenue  
Argonne, Illinois

### ANU AUSTRALIAN NATIONAL UNIVERSITY

Mr. H. A. Polach or Dr. F. J. Lovering  
Department of Geophysics and Geochemistry  
Australian National University  
Canberra A.C.T., Australia

### B BERN

Prof. H. Oeschger  
Physikalisches Institut  
Universität Bern  
Siderstrasse 5  
Bern, Switzerland

### Birm BIRMINGHAM

Prof. F. W. Shotton, F.R.S.  
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University of Birmingham  
Birmingham 15, England

### Bln BERLIN

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Deutsche Akademie der Wissenschaften  
Institut für Ur-und Frühgeschichte  
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Germany

Berlin

- BM**      **BRITISH MUSEUM**  
Mr. Harold Barker and Mr. Richard Burleigh  
Research Laboratory  
The British Museum  
London, W.C.1, England
- BONN**   **BONN**  
Dr. H. W. Scharpenseel and F. Pietig  
Institut für Bodenkunde  
Universität Bonn  
Bonn, Germany
- \*C**      **CHICAGO**  
Dr. W. F. Libby  
Institute of Geophysics  
University of California  
Los Angeles, California 90024
- \*CT**     **CALTECH**  
Dr. Don M. Yost  
Gates and Crellin Laboratories of Chemistry  
California Institute of Technology  
Pasadena, California 91109
- \*D**      **DUBLIN**  
Dr. William A. Watts  
Department of Botany  
Trinity College  
Dublin, Ireland
- Dak**     **DAKAR**  
Dr. Cheikh Anta Diop  
Directeur du Laboratoire de  
Radiocarbone I.F.A.N.  
Université de Dakar  
République du Sénégal
- Fr<sup>1</sup>**     **FREIBERG**  
Hajo Stechemesser  
C-14 Laboratorium  
II. Physikalisches Institut  
der Bergakademie Freiberg  
Leipziger Strasse 17  
Freiberg/Sachsen  
Germany
- FSU**     **FLORIDA STATE**  
James R. Martin, H. G. Goodell, and D. S. Phelps  
Radiocarbon Dating Laboratory  
Department of Geology  
Florida State University  
Tallahassee, Florida 32306
- \*G**      **GÖTEBORG**  
Dr. E. Ehn  
Laboratory of Nuclear Chemistry  
Chalmers Tekniska Högskola  
Göteborg, Sweden
- GaK**     **GAKUSHUIN UNIVERSITY**  
Prof. K. Kigoshi  
Gakushuin University  
Mejiro, Toshima-ku  
Tokyo, Japan

- Gd<sup>1a</sup> GDANSK  
 Prof. W. Mościcki, Gliwice  
 Politechnika Slaska  
 Katedra Fizyki  
 Zaklad Fizyki Technicznej  
 C-14 Laboratory  
 Poland
- Gif<sup>2</sup> GIF-SUR-YVETTE  
 Dr. J. Labeyrie or Mme. G. Delibrias  
 Laboratoire du Radiocarbone  
 Centre National de la Recherche Scientifique  
 9, Gif-sur-Yvette, France
- \*GL GEOCHRONOLOGICAL LABORATORY  
 Institute of Archaeology  
 31-34 Gordon Square  
 London, W.C.1, England
- Gro<sup>3</sup> GRONINGEN  
 Dr. J. C. Vogel  
 Natuurkundig Laboratorium der Rijks-Universiteit  
 Westersingel 34  
 Groningen, Netherlands
- GSC OTTAWA  
 Mr. J. A. Lowdon  
 Radiocarbon Dating Laboratory  
 Geological Survey of Canada  
 601 Booth Street  
 Ottawa, Ontario, Canada
- \*Gsy<sup>2</sup> GIF-SUR-YVETTE
- GU GLASGOW UNIVERSITY  
 Dr. A. Walton  
 Department of Chemistry  
 The University  
 Glasgow W.2, Scotland
- GX GEOCHRON LABORATORIES INC.  
 Mr. Harold W. Krueger  
 Geochron Laboratories Inc.  
 24 Blackstone Street  
 Cambridge, Mass. 02139
- H HEIDELBERG  
 Mr. D. Berdau and Dr. K. O. Münnich  
 C-14 Laboratorium  
 II Physikalisches Institut der Universität  
 Heidelberg, Philosophenweg 12  
 West Germany
- Hv HANNOVER  
 Dr. M. A. Geyh  
 Niedersächsisches Landesamt  
 für Bodenforschung  
 Hannover-Buchholz, Alfred-Bentz-Haus  
 West Germany
- I<sup>4</sup> ISOTOPES — A TELEDYNE COMPANY  
 Dr. Eric H. Willis  
 Isotopes — A Teledyne Company  
 50 Van Buren Avenue  
 Westwood, New Jersey 07675

- II\*** ISOTOPES, A TELEDYNE COMPANY  
Palo Alto Laboratories  
Joel J. Sigalove  
Isotopes, A Teledyne Company  
4062 Fabian Street  
Palo Alto, California 94303
- IRPA** INSTITUT ROYAL DU PATRIMOINE ARTISTIQUE  
Anne Nicole Schreurs  
Institut Royal du Patrimoine Artistique  
1 Parc du Cinquanteaire  
Brussels 4, Belgium
- ISGS** ILLINOIS STATE GEOLOGICAL SURVEY  
Mr. Stephen M. Kim  
Section of Analytical Chemistry  
Illinois State Geological Survey  
Natural Resources Building  
Urbana, Illinois 61801
- IVIC** CARACAS  
Dr. M. A. Tamers  
Instituto Venezolano de Investigaciones Cientificas  
Departamento de Química  
Apartado 1827  
Caracas, Venezuela
- K** COPENHAGEN  
Dr. Henrik Tauber  
Department of Natural Sciences  
National Museum  
Copenhagen K, Denmark
- KI** KIEL  
Dr. H. Willkomm and Mr. H. Erlenkeuser  
Institut für Reine und Angewandte Kernphysik  
Universität Kiel  
23 Kiel,  
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- KN** KÖLN  
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Universität Köln, Institut für Ur-und Frühgeschichte  
C<sup>14</sup>-Laboratorium  
Köln-Lindenthal, Weyertal 125, W. Germany
- L** LAMONT  
Dr. D. L. Thurber  
Lamont Geological Observatory  
Columbia University  
Palisades, New York 10964
- LAR** LIEGE STATE UNIVERSITY  
Prof. Dr. Jean Govaerts  
Lab. d'application des radioéléments  
9 Place du XX Aout  
Liège, Belgium
- LE** LENINGRAD  
Radiocarbon Laboratory  
Institute of Archaeology  
Universitetskaya Naberezhnaya #5  
Leningrad, USSR

- LJ** UNIVERSITY OF CALIFORNIA, SAN DIEGO  
Dr. H. E. Suess  
Scripps Institution of Oceanography  
University of California, San Diego  
La Jolla, California 92037
- LP** LA PLATA  
Dr. Horacio Cazeneuve  
Museo de La Plata  
Padeo del Bosque  
La Plata, Argentina
- Lu** LUND  
Dr. Tage Nilsson and Mr. Sören Håkansson  
Radiocarbon Dating Laboratory  
University of Lund  
Tunavägen 29  
S-22363 Lund, Sweden
- Lv** HÉVERLÉ LOUVAIN  
Prof. P. C. Capron and Mr. E. Gilot  
Centre de Physique Nucléaire  
Avenue Cardinal Mercier  
Héverlé Louvain, Belgium
- Ly** UNIVERSITY OF LYON  
Mr. J. Evin  
Laboratoire de Radiocarbone  
Institut de Physique Nucléaire  
43, Boulevard du 11 Novembre 1918  
69, Villeurbanne-Lyon, France
- M** MICHIGAN  
Dr. James B. Griffin  
University Museums Building  
The University of Michigan  
Ann Arbor, Michigan 48104
- \*Ma<sup>6</sup>** MANITOBA
- MC** MONACO  
Dr. J. Thommeret or Mr. J. L. Rapaire  
Laboratoire de Radioactivité Appliquée  
Centre Scientifique de Monaco  
Avenue Saint Martin  
Monaco
- ML** MIAMI  
Dr. H. G. Östlund  
Institute of Marine Science  
University of Miami  
Miami, Florida 33149
- Mo** VERNADSKI INSTITUTE OF GEOCHEMISTRY  
Vernadski Institute of Geochemistry  
Academy of Sciences of the USSR  
Moscow, USSR  
Address: Academician A. P. Vinogradov  
Vorobevskoye shosse, d.47-A  
Moscow, USSR
- MP<sup>7</sup>** MAGNOLIA PETROLEUM
- N** RIKEN (TOKYO)  
Dr. F. Yamasaki  
The Institute of Physical and Chemical Research  
Yamato-machi, Saitama Pref.  
Japan

- NPL** NATIONAL PHYSICAL LABORATORY  
Mr. W. J. Callow and Miss G. I. Hassall  
Division of Radiation Science  
National Physical Laboratory  
Teddington, Middlesex, England
- NSW** NEW SOUTH WALES  
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Department of Nuclear and Radiation Chemistry  
University of New South Wales  
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Kensington, New South Wales, 2033, Australia
- Ny** NANCY  
Pr. Marcel Roubault et Pr. René Coppens  
Centre de Recherches Radiogéologiques  
Université de Nancy  
B.P. 452  
Nancy 54, France
- NZ** NEW ZEALAND  
Dr. T. A. Rafter  
Institute of Nuclear Sciences  
Lower Hutt, New Zealand D.S.I.R.
- O** HUMBLE  
Dr. H. R. Brannon  
Esso Production Research Company  
Affiliate of Humble Oil & Refining Co.  
P.O. Box 2189  
Houston, Texas 77001
- ORINS** OAK RIDGE ASSOCIATED UNIVERSITIES  
Dr. John E. Noakes, Director  
Radiocarbon Dating Laboratory  
Oak Ridge, Tennessee 37830
- OWU** OHIO WESLEYAN UNIVERSITY  
Dr. J. Gordon Ogden, III  
Department of Botany and Bacteriology  
Ohio Wesleyan University  
Delaware, Ohio 43015
- OX** U.S. DEPARTMENT OF AGRICULTURE  
L. L. McDowell  
Agricultural Research Service  
Soil and Water Conservation Research Division  
Sedimentation Laboratory  
P.O. Box 30  
Oxford, Mississippi 38655
- P** PENNSYLVANIA  
Miss Elizabeth K. Ralph and Mrs. Stuart Lawn  
Department of Physics  
University of Pennsylvania  
Philadelphia, Pennsylvania 19104
- Pi** PISA  
Prof. E. Tongiorgi  
Laboratorio di Geologia Nucleare dell'Università  
Via S. Maria, 22  
Pisa, Italy

- PIC**    **PACKARD**  
Dr. Ariel G. Schrod  
Low Level Counting Laboratory  
Packard Instrument Co., Inc.  
2200 Warrenville Road  
Downers Grove, Illinois 60515
- Pr**    **PRAGUE**  
Alois Dubanský  
Laboratory for Isotopes  
Geochemistry and Geochronology  
Geological Institute  
Czechoslovak Academy of Sciences  
Prague-8  
Na Hrazi 26
- Q**    **CAMBRIDGE**  
Dr. R. G. West or Dr. V. R. Switsur  
University Sub-Department of Quaternary Research  
Botany School  
Downing Street  
Cambridge, England
- R**    **ROME**  
Dr. F. Bella, Istituto di Fisica  
and  
Dr. C. Cortesi, Istituto di Geochimica  
Radiocarbon Dating Laboratory  
University of Rome  
Citta Universitaria  
00100-Rome, Italy
- RI**    **RADIOCHEMISTRY, INC.**  
F. M. Sweets  
Radiochemistry, Inc., Subsidiary of  
The Martin Sweets Co., Inc.  
3131 West Market Street  
Louisville, Kentucky 40212
- S**    **SASKATCHEWAN**  
Dr. K. J. McCallum  
Department of Chemistry  
University of Saskatchewan  
Saskatoon, Saskatchewan, Canada
- \*Sa<sup>s</sup>**    **SACLAY**
- SI**    **SMITHSONIAN INSTITUTION**  
Dr. W. H. Klein, Director  
Radiation Biology Laboratory  
Robert Stuckenrath, Jr.  
C<sup>14</sup> Laboratory  
Smithsonian Institution  
Washington, D.C. 20560
- \*SL**    **SHARP LABORATORIES**
- SM<sup>o</sup>**    **MOBIL OIL CORPORATION**  
Dr. H. F. Nelson  
Mobil Oil Research and Development Corp.  
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P.O. Box 900  
Dallas, Texas 75221

- SR**     **SALISBURY, RHODESIA**  
 Dr. E. R. Swart or Dr. J. G. Sheppard  
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- St**     **STOCKHOLM**  
 Dr. Eric Welin and Mr. Lars Engstrand  
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 104 05 Stockholm 50, Sweden
- Su**     **FINLAND**  
 Prof. Esa Hyyppä  
 Geological Survey of Finland  
 Otaniemi, Finland
- T**     **TRONDHEIM**  
 Mr. Reidar Nydal and Mr. Knut Lövseth  
 Radiological Dating Laboratory  
 The Norwegian Institute of Technology  
 Trondheim, Norway
- TA**     **TARTU**  
 H. Simm or A. Liiva  
 Geobiochemistry Laboratory  
 Institute of Zoology and Botany Academy of Sciences of the Estonian SSR  
 Vanemuise St. 21  
 Tartu, Estonia, USSR
- TAM**    **TEXAS A & M UNIVERSITY**  
 Dr. Donald W. Hood  
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 Texas A & M University  
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- TB**     **TBILISI**  
 A. A. Burchuladze  
 Radiocarbon Laboratory  
 Tbilisi University  
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 Tbilisi, USSR
- \*TBNC<sup>10</sup>** **KAMAN NUCLEAR**  
 Kaman Nuclear  
 Garden of the Gods Road  
 Colorado Springs, Colorado
- TF**     **TATA INSTITUTE OF FUNDAMENTAL RESEARCH**  
 Dr. D. Lal  
 Tata Institute of Fundamental Research  
 Homi Bhabha Road  
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- TK**     **UNIVERSITY OF TOKYO**  
 Dr. Hisashi Suzuki  
 Carbon Dating Laboratory  
 c/o Department of Anthropology  
 Faculty of Science  
 University of Tokyo  
 Hongo, Bunkyo-ku, Tokyo, Japan
- Tx**     **TEXAS**  
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- UW UNIVERSITY OF WASHINGTON  
Dr. A. W. Fairhall  
Department of Chemistry  
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- V VICTORIA  
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- VRI VIENNA RADIUM INSTITUTE  
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- W U.S. GEOLOGICAL SURVEY  
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Washington, D.C. 20242
- WIS WISCONSIN  
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Madison, Wisconsin 53706
- WSU WASHINGTON STATE UNIVERSITY  
Dr. Roy M. Chatters  
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- X WHITWORTH COLLEGE  
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- Y YALE  
Dr. Minze Stuiver  
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- Z ZAGREB  
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