

ARTHUR JOHN BIRCH AC CMG FRS FAA FRACI
BIOGRAPHICAL DATA

Born: Sydney, N.S.W. 3rd. Aug. 1915 (Lily Bailey and Arthur Spencer Birch)

Educ.: Woollahra Superior Public School and Sydney Technical High School

N.S.W. School Leaving Certificate, First Class Honours Mathematics I and II and Chemistry, A passes in Physics and English, B passes in French (and pass in oral) and Mechanics.

Sydney University (High Distinctions Chemistry I and II, Physics I and II, Distinction Geology I and Credits Mathematics I and II, High Distinction Chemistry III, Pure and Applied, and Organic Chemistry III; First Class Honours and University Medal in Organic Chemistry (1936). First Place in Chemistry I and Physics 1 and Levey Scholarship, Caird Scholarship for Practical Chemistry. Walter Burfitt Prize, Science Association Prize for original research.

1937 M.Sc. (Organic Chemistry). Commonwealth Research Scholar (inaugural award).

1938 Scholar of the Exhibition of 1851 (to Oxford, St. Catherines).

1940 D. Phil. Oxon.

1940-45 Research Fellow, Dyson Perrins Lab. Oxford

1945-48 I. C. I. Research Fellow, Oxford (Inaugural award)

1949-52 Smithson Fellow of the Royal Society, Cambridge

1952-55 Professor of Organic Chemistry, University of Sydney

1953-54 Foundation member, State Cancer Council, NSW

1954 Carnegie Visiting Fellow, U.S.A.

1955-67 Professor of Organic Chemistry, University of Manchester

1956-59 Member of Council, Chemical Society, London

1956-67 Member, CIBA Fellowships Award Committee

1960 Nuffield Professor, University College, Ibadan, Nigeria

1960-62 Chemistry Fellowships Committee, Science Research Council, U.K.

1965-67 Dean Elect, Research School of Chemistry, Australian National University

1965 Rockefeller Visiting Fellow, Ibadan, Nigeria

1966 Member, Chemistry Committee, Royal Society

1966 Wilson Baker Lecturer, Bristol University

1967-70 Foundation Dean, Research School of Chemistry, A.N.U.

1967-80 Foundation Professor of Organic Chemistry, Research School of Chemistry, ANU

1968-72 Treasurer, Australian Academy of Science, *officio* Member of Academy International Conferences Organising Committees

1970-72 Chairman, Science Policy Committee, Science and Industry Forum, Australian Academy of Science

1972-73 Advisory Committee on Science and Technology, Commonwealth Government (Foundation member)

1973-76 Dean, Research School of Chemistry, ANU; Member, ANU Council

1974 Liversidge Lecturer, Royal Society NSW

1974-77 Board, Festival Australia 75 (Chairman Science Exhibition Committee)

1975-79 Board and National Point of Contact, UNESCO S. E. Asian Natural Products Network (Chairman Inaugural Meeting)

1976-77 Chairman, Independent Inquiry into the CSIRO

1976-79 Chairman, Public Lectures Committee, Precinct and Building Committee, Australian Academy of Science

1976-79 Chairman, Advisory Committee, Centre for Continuing and Further Education, ANU

1977-78 Vice-President, then President, Royal Australian Chemical Institute

1978-79 Member, Organising Committee, First International Conference on Traditional Asian Medicine

1979 Member, Additional Rhodes Scholarship Committee

1979 Chairman, Joint Academies' Workshop, UNDP Conference (Vienna) (Science and Technology for What Purpose?)

1979-80-82-84-86-87 UNESCO-UNDP Consultant, Peoples' Republic of China "Strengthening Research and Teaching in Universities" (research projects, technical and laboratory management, instrument centres)

1978-81 Foundation Chairman, Australian Marine Sciences and Technologies Advisory Committee, and Marine Research Funding Panel

1980 Masson Memorial Lecturer, University of Melbourne

1980-81 Inaugural Newton-Abraham Professor, Oxford, and Professorial Fellow, Lincoln College

1982-86 President, Australian Academy of Science

1982-85 Professor Emeritus and University Fellow, ANU (Equivalent Distinguished Professor)

1982-83 Ministerial Inquiry into Implementation CSIRO Report

1983- Foundation Member, Board, National Science Summer School

1984 Member, Organising Committee, Bicentennial Science Centre

1985- Member, Visiting Committee, Department of History and Philosophy of Science, University of NSW

1985 Member, UNESCO Decennial Inquiry (Djakarta) into SE Asian Natural Products Network

1986- Honorary Visiting Fellow, ANU

1987 OECD Examiner, Science and Technology Policy, Denmark

1987 Chairman, Organising Committee, National Science and Technology Advisory Group (Australia)

Awards and Honours

Appointed to Orders and Degrees:

Companion of the Most Distinguished Order of St. Michael and St. George (CMG) 1979 (by H. M. the Queen)

Companion of the Order of Australia (AC) 1987 (by H.M. the Queen)

M.Sc.(ad.e.grad.)(Manchester) 1962

M.A.(Oxon) (ad.e.grad.) 1981

D.Sc.(honoris causa) Manchester, Sydney, Monash

Presente a l'Academie des Sciences de L'Institut de France, Paris 1985

Elections

1954 Fellow, Australian Academy of Science

1958 Fellow, Royal Society, London

1960 Fellow, Royal Institute of Chemistry (Chartered Chemist)

1968 Fellow, Royal Australian Chemical Institute (Honorary Fellow 1983)

1976 Full Foreign Academician, USSR Academy of Science (first election in Australia)

1980 Honorary Fellow, Royal Society of Chemistry (Fellow 1936)

1986 Honorary Fellow, Royal Society of NSW (Fellow 1936)

Medals and Awards (Personal)

1937 University Medal in Chemistry (Sydney)

1945 U. K. Defence Medal (1940-45)

1954 H.G Smith Medal (Royal Australian Chemical Institute)

1960 Simonsen Award for Natural Products Chemistry (Chemical Society)

1960 University Medal, Universite Libre de Bruxelles

1960 Fritsche (Gunther) Award for Terpene Chemistry (American Chemical Society)

1961 Canadian Institute of Chemistry Visiting Professor.

1963 E.C. Franklin Award (for Outstanding Contribution to Chemistry) Phi Lamda Upsilon, Stanford University

1963, Smith Lectures, University of Oklahoma

1966 Royal Society Delegate, Romania

1972 Flintoff Award for Plant Chemistry, Chemical Society

1972 Purkyne Award for Contributions to Biochemistry, Czechoslovak Medical Society

1972 Matthew Flinders Award for Outstanding Contributions to Physical Science, Australian Academy of Science

1972 Davy Medal for Outstanding Contributions to Chemistry, Royal Society (first award in

Australia)

1980 A. E. Leighton Memorial Award for Outstanding Contributions to the Application of Science in Australia, Royal Australian Chemical Institute

1981 Robert Robinson Award for Organic Chemistry, Royal Society of Chemistry

1981 Richard Martin Lecture, Universite Libre de Bruxelles

1982 Natural Products Award, Royal Society of Chemistry

1986 Plaque, Jurusan Kimia, Institut Teknologi Bandung, Indonesia

1987 Tetrahedron International Award for Contributions to Creative Organic Chemistry

Many endowed Lectureships and Visiting Fellowships (U.K., U.S.A., Switzerland, U.S.S.R, Austria, Germany, Poland, Hungary, France, Romania, Italy, Canada, Mexico, Hong Kong, Singapore, Japan etc)

Occasional Medals (Personally Presented)

1958 Centenary Medal, Squibb

1965 Federation of European Biochemical Societies Meeting (Vienna)

1979 Royal Spanish Chemical and Physical Society, Fiftieth Anniversary.

1984 Fiftieth Anniversary, Institute of Inorganic Chemistry, USSR Academy of Science

1984 Fiftieth Anniversary, Zelinskii Institute of Organic Chemistry, USSR Academy of Science

1984 Twenty-fifth Anniversary, Shemyakin Institute of Bioorganic Chemistry, USSR Academy of Science

1985 Institute of Material Science, Ukrainian Academy of Science, Kiev

1985 Institute of Cryobiology and Cryomedicine, Ukrainian Academy of Science

1985 Paton Institute, Kiev, Ukrainian Academy of Science

1985 Medal, Institute of Technology, Bandung, Indonesia

1986 Pontificia Academia Scientiarum, Roma, 50th Anniversary

Many inscribed books and scrolls, Peoples' Republic of China, between 1949 and 1986

Editorial Advisory Boards of International Journals

Tetrahedron and *Phytochemistry* (Pergamon) (from inception to date and until 1983 respectively); *Journal of Antibiotics* (Japan) (from inception until 1986); *Heterocyclic Chemistry* (Japan) (from inception); *Interdisciplinary Science Reviews* (Arrowsmith) (from inception); *Heilbron's Dictionary of Chemistry* (Chapman and Hall)

Publications

About 425 articles in scientific journals (listed elsewhere). One book "*How Chemistry Works*" (1947) Sigma Press.