

UNIVERSITY OF WOLLONGONG

CITATION DELIVERED BY PROFESSOR K. R. MCKINNON, VICE-CHANCELLOR OF THE UNIVERSITY OF WOLLONGONG, ON THE OCCASION OF THE ADMISSION OF GUY KENDALL WHITE TO THE DEGREE OF DOCTOR SCIENCE, HONORIS CAUSA, ON 11 MAY 1994.

Chancellor, I present Guy Kendall White

Dr White was born in Sydney on 31 May 1925. He is a worthy member of three illustrious and old Australian families founded by James White, William Cox and Thomas Kendall. Guy White is a pioneer and internationally recognised expert in the field of low temperature physics. He is also acknowledged widely as a perceptive and humane colleague and mentor who is always considerate in his dealings with others.

Dr White was educated at Scots College in Sydney and attained his Bachelor and Master of Science degrees at Sydney University in the late 1940s. He then left for Magdalen College and the famed Clarendon Laboratory in Oxford on a CSIRO Overseas Studentship. He completed his Doctor of Philosophy degree on "Investigations in Liquid Helium" and, in 1950, returned to the National Standards Laboratory in Sydney where he played a leading role in the commissioning of the first helium liquefier in Australia.

For ten years during the 1950s, Guy White concentrated on basic research into the conductivity of pure metals: a project that took him overseas to Canada and was of great technical significance to the aerospace industry. Whilst in Ottawa, he produced the first edition of the influential text - "Experimental Techniques in low Temperature Physics" - which has been widely used since then and translated into a number of languages including Russian and Chinese.

Returning to Sydney and the CSIRO in 1958, Guy White undertook measurements of thermal capacity at low temperatures to complement the available knowledge on the heat capacity of solids. His research earned him the Syme medal in 1965. He continued his work in this field as Visiting Scientist at the Bell Telephone Laboratories in the United States in the mid 1960s and as Senior Visiting Scientist at Leeds and Oxford from 1976 to 1977.

Guy White has been associated with the CSIRO from his student days. He was a Chief Research Scientist for 20 years until his retirement in 1990 and has certainly paid back in full the Organisation's investment in his talent for original research by his long dedication and achievement.

Amongst his many positions in the scientific community, Guy White is a Fellow of the Institute of Physics and a Fellow of the Australian Academy of Science which he served as Vice-President from 1979 to 1980. He was also a Member of the Board of the International Cryogenic Materials Conference and is the Advisory Editor of the International Journal of Thermophysics.

Since his official retirement, Dr White has continued his research into low temperature physics and written a number of standard reference articles on the thermal properties of solids. He has also given valuable help to this University as a member of the Faculty of Science Visiting Committee. The Faculty is grateful for his perceptive contribution to meetings and, above all, his keen interest in the education of younger generations of scientists. He has also generously offered the Faculty his personal and very valuable collection of professional journals, accumulated during his long career in Physics.

Chancellor, when Jacob Bronowski wrote about the values of science, he argued for the centrality of the search for truth and the need for originality and independence of mind. Linked to them, across what he called "the bridge of tolerance", were the other older values of a scientific society such as "respect, honour, and dignity" (Jacob Bronowski, "A Sense of the Future", 1977). As his fine reputation and his generosity to colleagues and students show, these are indeed the values of Guy White, scientist and gentleman.

It is my pleasure and privilege to present to you Guy Kendall White for the award of Doctor of Science, *Honoris Causa*.