P.066 Personal archives of Victor Albert BAILEY (1895-1964) MA DPhil Oxf., FInstP FAA

Date Range: 1921-1963
Quantity (sh. m.): 0.02

Administrative History

Born in Alexandria Egypt, Bailey studied in England at King Edward VI School in Southampton and Queen's College, Oxford where he studied Engineering Science and Physics and graduated as Bachelor of Science circa 1920 and Doctor of Philosophy in 1923. He was awarded his doctorate for research into electrons and ions in gases under J S Townshend in the Electrical Laboratory which was subsequently incorporated into the Clarendon Laboratory. The University of Sydney appointed Bailey Associate Professor of Physics in 1924. Previously, Bailey had been employed as an academic at Queen's College Oxford. Subsequently, he was appointed Professor of Experimental Physics (in 1936), Research Professor in 1953 and Emeritus Professor after his retirement in December 1960.

In his obituary to Bailey published in "Nature", K Landecker said "Bailey will probably be best remembered for the elucidation of an effect observed by early wireless operators and sometimes referred to as the 'Luxembourg effect'." Bailey carried out research on gas discharges, the ionosphere, plasma waves and cosmology and brought the methods and results of the science of Physics into the service of other departments of the University, namely Radio Research, Engineering, Zoology and Medicine. Sources of funds included the United States Air Force and the Carnegie Corporation New York. After his retirement, Bailey continued his research. In December 1963, he gave a paper at the Conference on Non-Linear Processes in the Ionosphere in Colorado USA.

Awards for Bailey's scientific achievements included election to the Australian Academy of Sciences in 1955, the T K Sidey Medal and Prize from the Royal Society of New Zealand, and the Walter Burfitt Prize from the Royal Society of NSW. The Burfitt Prize was awarded at intervals of 3 years to the worker in pure or applied science resident in Australia or New Zealand whose papers and other contributions published during the past 3 years are deemed of the highest scientific merit.
Committee membership included the Cancer Research Committee of the University (resigned in 1929), and the Committee of the International Union of Scientific Radio (chairman). During the first world war, Bailey was an instructor in the Signal Corps of the Royal Engineers. During World War II, Bailey organised and directed courses in Radio-physics and radio for members of the armed forces in Sydney.

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Related Records:
G47), G3/158.
G3/13 (14985), G3/190
P148/10, P10/31.

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Series 1 Notebooks
Date Range: 1921 - 1928

Accessions: 1/69
Quantity: 0.05
Item List: no

Series Description:

Two exercise books (itemised as no 1, 2) and loose folios (itemised no 3, 4) found in the volumes. The entries, many in mathematical notation, show the development of Bailey's thoughts in relation to radiation and other physical phenomena. The volumes are titled "Notes on Ideas vol II" and "Ideas Notebook vol III".

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Series 2 Physics - scripts and related records
Date Range: 1922 - 1963

Accessions: 1/69
Quantity: 0.08
Item List: no

Series Description:

Includes manuscript notes pertaining to Bailey's research on auroras, scripts on the electric charge of stars,a typescript on the theory of numbers, manuscript notes and typescripts for lectures given by Bailey at the conference for Non-linear Processes in the Ionesphere,Dec. 1963, and extensive correspondence relating to the publication of "A New Test for Primality'.

Custody: University of Sydney
Copyright: Remains with estate
Provenance: Victor Albert Bailey
Access Status: no restrictions

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Series 3 Physics - publications
Date Range: 1923 - 1957

Accessions: 1/69
Quantity: 0.02
Item List: no

Series Description:

Includes a copy of Bailey's publications addressed to Sir Edward Appleton, reprints of some of Bailey's 22 articles on the electricity of gases published between 1921 and 1935, some on electromagnetic waves, on cosmology,and animal poulation. Also a reprint of Bailey's address to the Royal Society of N.S.W., entitled "Einstein as a Physicist'.

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Series 4 Physics III - lecture notes
Date Range: 1938 - 1947

Accessions: 1/69
Quantity: 0.02
Item List: no

Series Description:

Includes copy of draft syllabus for Radiophysics III.

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