

THE ROYAL COMMISSION ON HISTORICAL MANUSCRIPTS

Report on correspondence and papers of
SIR ERIC KEIGHTLEY RIDEAL (1890-1974) FRS

1936-1973

deposited in the Royal Institution,
London

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CONTEMPORARY SCIENTIFIC ARCHIVES CENTRE

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Catalogue of the papers of

Sir Eric Keightley Rideal FRS

(1890 - 1974)

Compiled by: Jeannine Alton

Julia Latham-Jackson

Deposited in the Archives of the Royal Institution, London, 1979

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Description of the collection

The material was received from Lady Oliver (daughter).

With few exceptions (A.1, A.2, B.2, B.3) nothing survives of Rideal's early scientific career, and very little of his long and extensive involvement in scientific committees and societies.

Most of the speeches and writings in Section A. belong to the last years of Rideal's life (1970-73); several of them are of interest in containing reminiscences of his career and of the development of colloid and surface sciences. The scientific notes and working papers in Section B. similarly belong in the main to a later period (see the introductory note to Section B), as does the small amount of surviving correspondence in Section D.

All correspondents are listed in the Index.

Note All requests for access to the papers should be addressed in the first instance to the Librarian, The Royal Institution, London.

SECTION A ARTICLES, SPEECHES & WRITINGS

- A.1 'The adsorption of gases and vapours by solids'.
Printer's proof with ms. corrections. 1936
- A.2 'Intermolecular forces in two-dimensional systems', with
R.C.L. Bosworth. Physica, 4. 1937
Printer's proof with ms. corrections; copy of article as printed.
- A.3,
A.4 2 talks on 'Ecology'.
Ms. notes, 5 pp. and 5 pp.
The second of the talks (A.4) includes a discussion of
chemical warfare and reminiscences of gas attacks in 1914-18
War. n.d. (c) 1970
- A.5 Informal speech at Euchem Conference, Holland, April 1970.
2 pp. ms., with some reminiscences, for speech at an informal
reception.
- A.6 Speech at Inauguration of Teesside Surface Science Society,
3 June 1970.
3 pp. typescript with ms. corrections. (2 copies)
- A.7 Speech at Roemond Conference, Holland, July 1970.
4 pp. ms. notes, with some reminiscences, including Rideal's
claim that 'I had to invent the term Colloid Science so that the
General Board [of Cambridge University] did not dare enquire
as to what it was all about', and also an account of the origin
of D.J. Crisp's interest in barnacles.
(see also D.1)
- A.8 'Sixty years of chemistry'. 1970
Talk given at the opening of Unilever Research Laboratories,
Port Sunlight, Merseyside, and subsequently published.
Various versions of talk, as follows:
Heavily corrected typescript and ms. draft, perhaps transcript
from dictated notes, fuller and more informal than final
version, 10 pp.
Similar corrected typescript and ms. draft, 10 pp.
Typescript of talk as delivered, 24 pp.
Also included is a signed offprint, sent to Rideal by the author, of
R.G.W. Norrish's article 'Fifty years of physical chemistry in Great
Britain', 1969, to which Rideal refers in his own talk.

- A.9 Speech, perhaps at conference or discussion, organised by British Petroleum Company. n.d. (c) 1970
2 pp. typescript (2 copies).
- A.10 Memorial tribute to A.E. Alexander (J. Colloid Interface Sci., 37, 1971).
Letter from R. J. Hunter requesting memorial note, ms. draft of Rideal's contribution, typescript of final collaborative version.
- A.11 Article for 'Shokubai', 3 May 1971.
On 'Some experiences on heterogeneous catalysis'.
7 pp. typescript (2 copies).
- A.12 Foreword to 'The surface of non-metals' Vol. I. 1973
2 pp. typescript and brief correspondence.
- A.13 'A note on "Advisers" and the Anglo-Persian Oil Company'.
2 pp. + 1 p. notes, ms. n.d. (c) 1973
- A.14 'The early days of IUPAC' (published as 'Recollections of IUPAC's early days', Chem. Brit. 10, 1974).
5 pp. + 4 pp. ms. drafts.
Includes background material supplied by Royal Society. 1973
- A.15 Paper on membranes, perhaps draft chapter for book, n.d.
41 pp. typescript with ms. corrections, and 1 p. ms. notes.
- A.16 Misc. notes and drafts for speeches, anecdotes, etc.

SECTION B NOTES, DRAFTS AND WORKING PAPERS

The material, which is all in Rideal's hand, is undated and in many cases fragmentary. Where size of paper, type of pencil or ink, or some similar indication makes grouping of the notes feasible, this has been done; there are also some sequences paginated by Rideal in B.5 - B.9.

- B.1 2 pp. summary for a course of 8 lectures on Catalysis, and '2 Supplementary lectures on Enzymes'. There is a ms. note 'D.D.E.' (probably D.D. Eley) but it is not clear whether the lectures were given by him or by Rideal.
- B.2 Early notes, on 'Catalysis and Chemical Reactivity' (dated 1928), 'Oxidation and Reduction', etc.
- B.3 Notes on 'Adsorption of gases', 4 pp., all bearing a note 'D' (possibly for addendum or appendix to a publication).
- B.4 Notes on 'Concepts of oxydation' with a note 'Katz'.
- B.5-B.10 Notes and drafts, 1968 and later, probably for book.

These consist of two relatively finished sections (B.5, B.6), several identifiable sequences of paginated drafts (B.7, B.8) and two folders of fragmentary notes which cannot be attributed (B.9, B.10).

- B.5 'The Surface Tension of Metals'.
21 pp. heavily corrected and revised typescript.
- B.6 'Diachisis and Disjoining Pressure'.
18 pp. typescript with ms. corrections (2 copies).
- B.7 'Diachisis and Disjoining pressure'.
2 separately paginated drafts for B.6
- B.8 Rideal's folder, inscribed 'Inserts and interfacial phases. Ch.1 P.1-264'.
Contains some paginated sequences on:
 'Katalysis of metals'.
 'The surface tension of metals' (ms. draft of B.2 above).
 untitled (post 1970)

Also included are notes and comments on Rideal's draft in another hand.

- B.9 Incomplete sequence of pages numbered 235-434.
- B.10 Misc. notes and drafts, some bearing titles or page numbers but too fragmentary to be attributed. Includes offprints annotated by Rideal.

SECTION C COMMITTEES, CONFERENCES, ORGANISATIONS

The items below present, in alphabetical order, all that remains of Rideal's extensive involvement in professional societies (notably IUPAC) and in official scientific policy through service on government advisory bodies.

For details of the extent of Rideal's activities of this kind, see D.D. Eley, Biographical Memoirs of Fellows of the Royal Society, 22, 1976.

C.1 International Union of Pure and Applied Chemistry (IUPAC)

Correspondence and papers, 1967-71.

Mainly re Symposium on Surface Area Determination, held at Bristol, July 1969. Includes draft papers on definitions and nomenclatures, some with ms. annotations by Rideal.

(see A.14 for Rideal's paper on 'The early days of IUPAC')

C.2-C.9 Ministry of Supply.

Advisory Council on Scientific Research and Development.
Rideal served as Chairman 1953-58.

The items below consist of correspondence with officials and with colleagues re meetings, visits to factories and research stations, changes of membership, etc.

Rideal kept separate, in alphabetical order, correspondence relating to the diverse committees, panels and boards of the Advisory Council. This order has been preserved.

With few exceptions, the period covered is June 1953 to March 1954 only.

C.2	Biological Research Advisory Board.	1953
C.3	Chemical Engineering Committee. Correspondence and papers.	1953-56
C.4	Crop Committee.	1954
C.5	High Explosives Committee.	1953
C.6	Radar and Signals Advisory Board. Correspondence and papers, mainly <u>re</u> visits and discussions at R.R.E. Malvern.	1953
C.7	Weapons and Explosives Advisory Board.	1953-54
C.8	Weapon Research Committee.	1953
C.9	Secretary's list of Technical Reports for various of the above Committees, returned to Ministry 15/1/55.	

C.10 Rideal conferences on Chemisorption and Catalysis.

Conferences on Chemisorption and Catalysis were held in Belfast (1962), Bristol (1965) and Nottingham (1968). At the Nottingham meeting the name 'Rideal Conference ...' was adopted after Rideal, 'who has made such important contributions to Colloid and Surface Science and who had been the chairman of the first conference'.

General correspondence 1969-73 re conferences, financial appeals and organisation. Includes statements of account, an account of the history, aims, achievements and financial supporters of the conferences, and the programme (with some ms. notes by Rideal on papers read) of the 1968 conference at Nottingham at which the name 'Rideal Conferences' was adopted.

C.11 Royal Commission for the exhibition of 1951
'Science Scholarships Committee'.

Very little remains of Rideal's long service on this committee. The folder contains committee papers, chairman's notes and secretarial correspondence relating to the 127th and 128th meetings in April and June 1970, and one letter re the Committee, 1972.

C.12 Science Research Council.

Correspondence and papers on various committees, panels, etc.

Letter and supporting material, on Surface Studies Panel, from R. Mason. 1970

Letter from G.D. Parfitt, on teaching of colloid science. 1970

Correspondence, committee papers and report of panel on Science of Colloidal Dispersions. 1970-71

SECTION D SCIENTIFIC CORRESPONDENCE

- | | | |
|-----|--|------|
| D.1 | D.J. Crisp, on barnacles (with related offprints).
(see also A.7) | 1970 |
| D.2 | George L. Gaines, on ion exchange (with related offprints). | 1958 |
| D.3 | H. Mykura, on surface energy anisotropy in metals. | 1968 |

Index of correspondents

CAWOOD, Sir Walter	C.2
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EVERETT, Douglas Hugh	C.1
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