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Catalogue of the papers and correspondence of

Dame Kathleen Lonsdale FRS

(1903 - 1971)

VOLUME I

Section A: Biographical

Section B: University College London

Section C: Research

Section D: *International Tables for Crystal Structure
Determination*

Section E: Publications, lectures and broadcasts

by Simon Coleman, Alan Hayward and Caroline
Thibeaud

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FRS (1903-1971), X-ray crystallographer

Compiled by: Simon Coleman, Alan Hayward and Caroline Thibeaud

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GENERAL INTRODUCTION

PROVENANCE

The papers were received from Dr H.J. Milledge, Dame Kathleen Lonsdale's former colleague at University College London, in 1998 and 1999.

OUTLINE OF THE CAREER OF KATHLEEN LONSDALE

Dame Kathleen Lonsdale was one of the foremost X-ray crystallographers of the 20th century and one of the first two women to be elected (in 1945, with Marjory Stephenson) Fellow of the Royal Society. Born Kathleen Yardley in Newbridge, Southern Ireland, in 1903, she was the youngest of ten children in a family at times reduced to poverty. In 1908 the family moved to Seven Kings in Essex and Lonsdale attended the County High School for Girls in Ilford where she consistently achieved academic excellence. At the age of sixteen she won a place at Bedford College for Women and graduated in physics in 1922. Her achievement in finishing first in the University of London BSc Honours exam immediately gained her a place in W.H. Bragg's research team, first at University College London and, from 1923, at the Royal Institution.

Lonsdale, working with W.T. Astbury, began to apply space group theories, developed by Harold Hilton and others at the beginning of the century, to the study of X-ray diffraction patterns from crystals. Their important paper 'Tabulated data for the examination of the 230 space-groups by homogeneous X-rays' was submitted to the Royal Society and published in *Philosophical Transactions* (1924). In the following years international crystallographers recognised the need for more comprehensive tables for crystal structure determination. Lonsdale was a member of the editorial group concerned with the production of new tables and, working from home in the early 1930s following the birth of her first child, provided the structure factor formulae for each space group. The resulting *International Tables*, published in 1935, proved to be only the beginning of a project to which she devoted a great amount of time and effort during the rest of her career. In 1948 Lonsdale was made the first Chairman of the new Commission on Tables and was the principal editor in the production of the new volumes of *International Tables*, the first of which appeared in 1951.

Following her marriage in 1927 Lonsdale worked briefly at the University of Leeds where she carried out important analyses of hexamethylbenzene and hexachlorobenzene crystals. She returned to the Royal Institution in 1931 and remained there for fifteen years, concentrating on

research on diamagnetic anisotropy. Her work on the magnetic anisotropy of benzil led to her studies of disorder in crystals caused by thermal motions, one of her principal research interests during the rest of her career.

In 1946 Lonsdale accepted the post of Reader in Crystallography at University College London, becoming Professor of Chemistry in 1949. She established her own research school there and introduced two new courses in crystallography, one for undergraduates and the other for graduates. Among a wide diversity of interests, she studied methonium compounds, urinary calculi and synthetic diamonds, though her work on the *International Tables* diverted a considerable amount of her time away from research.

Lonsdale and her husband became Quakers in 1935 and her pacifism led to her refusal to register for civil defence duties, although she was willing to work as a volunteer. On her refusal to pay a fine imposed for non-registration she was imprisoned in Holloway gaol for one month in 1943. Prison was a formative experience for her, and the insights that she gained while at Holloway prompted her to take an active interest in penal reform. She was made a member of the Board of Visitors, Aylesbury Prison for Women and Borstal Institution for Girls in 1949 and later served as Deputy Chairman of the Board of Visitors of a borstal in Essex.

World peace and ethics in science were issues which also concerned her. She was Vice-President of the Atomic Scientists' Association and President of the Women's International League for Peace and Freedom. She attended several Pugwash Conferences on World Affairs and expressed her hopes for peace in numerous articles, including a Penguin Special '*Is Peace Possible?*', and lectures.

Lonsdale's scientific career and peace interests required her to undertake a considerable amount of foreign travel. Among the scientific conferences in which she participated were Congresses of the International Union of Crystallography from 1948. On some trips she combined scientific engagements and lectures with those relating to peace and religious issues. She undertook some foreign engagements on behalf of the Society of Friends.

Lonsdale was a member of Council and Vice-President of the Royal Society, 1960-1961; Vice President of the International Union of Crystallography, 1960-1966, and President in 1966; General Secretary of the British Association, 1959-1964, and President of the Physics Section in 1967; and President of the British Association in 1968, the first woman to hold the post. In the years following her election to the Royal Society, Lonsdale received many other awards in recognition of her contributions to science. She was made a Dame Commander of the Order of the British Empire in 1956 and awarded the Davy Medal of the Royal Society in 1957. She

received honorary degrees (DSc or LLD) from several universities including those of Wales, Leicester, Manchester, Oxford, Bath and Leeds.

In 1927 she married Thomas Jackson Lonsdale. They had three children. Lonsdale died on 1 April 1971.

DESCRIPTION OF THE COLLECTION

SECTION A, Biographical, includes correspondence and papers relating to Lonsdale's imprisonment in Holloway Prison, with her own accounts of her time there. There are also diaries and personal notebooks, 1946-1969, letters of congratulation on election as Fellow of the Royal Society, and various photographs dating from school to her later years.

SECTION B, University College London, reflects Lonsdale's teaching and administrative work during her years at the University. There are papers, some of them manuscript, relating to her teaching of undergraduate and postgraduate courses. There is significant documentation relating to laboratory personnel, research funding and general university administration. Included also are papers relating to the 'Round Table on Peace Studies' which proposed the establishment of a centre for research into international conflict at the University.

SECTION C, Research, covers the period 1924-1970 and broadly divides into Royal Institution and University College London sub-sections. The Royal Institution papers comprise notebooks, one dating from Lonsdale's first period there (1923-1927), correspondence with colleagues such as W.H. Bragg and J.M. Robertson and Lonsdale's notes and drafts for various research topics. Correspondence and papers dating from her University College years cover many different areas of research, including diffuse scattering of X-rays, thermal vibrations in crystals, methonium compounds and urinary calculi. The last topic is particularly well documented, with several case studies included. A large group of photographs, mostly of X-ray diffraction patterns, is also included.

SECTION D, International Tables for Crystal Structure Determination. It chiefly documents the preparation of volumes of the *International Tables* from 1948 when Lonsdale was made Chairman of the Commission on Tables. The material consists of drafts, notes and correspondence with colleagues and publishers.

SECTION E, Publications, lectures and broadcasts, is extensive. Publications material chiefly consists of Lonsdale's drafts of articles, books, book reviews, obituaries, and letters to newspapers and magazines. Included among the articles are some concerning peace and

religious issues and obituaries and biographical articles on various individuals. The letters to newspapers and magazines are principally on the issue of atomic weapons. There is also a sequence of general correspondence concerning publications. Drafts of lectures date from 1945 to 1970, and include some on the ethics and the role of science in society, and there is also a large body of lecture notes dating from 1933 to 1970. Scripts for broadcasts date from 1945 to 1967, the topics ranging from crystallography to religion.

SECTION F, Visits and conferences, documents Lonsdale's foreign and domestic travel for the period 1943-1971. She attended many scientific conferences around the world and delivered lectures principally on crystallography and science ethics. On longer trips she often combined a number of her interests and responsibilities, including work for the Society of Friends. Of significant interest are papers covering her visit to China in 1955 and her world tour of 1965.

SECTION G, Societies and organisations, presents material relating to twenty-two organisations arranged in an alphabetical sequence. Significant documentation survives for Lonsdale's involvement in The British Association for the Advancement of Science (BAAS) and the International Union of Crystallography (IUCr). Included is a draft of her address to section A of the BAAS at Leeds, 1967, and material relating to a number of International Congresses of Crystallography (organised by the IUCr). There are papers relating to her participation in Pugwash Conferences on World Affairs, 1958-1970. Her interest in prison reform is represented by a group of papers concerning the running of Bullwood Hall Borstal, Essex, where Lonsdale was Vice-Chairman of the Board of Visitors.

SECTION H, Correspondence, spans the years 1927 to 1974. It consists of two main sequences of Lonsdale's correspondence, one arranged alphabetically, the other chronologically, 'day files', principally carbons of outgoing correspondence (1966-1969), and a sequence of references and recommendations. Correspondents include scientists such as Max Born, W.H. Bragg, W.L. Bragg, E.G. Cox, Dorothy Hodgkin, Judith Milledge, L.C. Pauling and A.J.C. Wilson. Included is correspondence relating to Lonsdale's period of imprisonment in 1943.

There is also an Index of correspondents.

Simon Coleman
University of Bath
May 2002

Biographical

SECTION A	BIOGRAPHICAL	A.1-A.96
	A.1-A.28	AUTOBIOGRAPHICAL AND BIOGRAPHICAL
	A.29-A.46	CAREER, HONOURS AND AWARDS
	A.47-A.56	RELIGIOUS AND SOCIAL CONCERNS
	A.57-A.67	DIARIES AND PERSONAL NOTEBOOKS
	A.68-A.87	PHOTOGRAPHS
	A.88-A.90	FAMILY AND FRIENDS
	A.91-A.96	MISCELLANEOUS

Biographical

A.1-A.28 AUTOBIOGRAPHICAL AND BIOGRAPHICAL ca 1940s-1989

- A.1-A.13 Obituaries and memoirs
- A.14-A.17 Autobiographical notes
- A.18-A.26 Biographical accounts
- A.27, A.28 Newspaper cuttings

A.1-A.13 Obituaries and memoirs 1971-1989

A.1 Obituary, *The Times*, 2 April 1971.

A.2 Obituary by H.J. Milledge, *Acta Crystallographica*, November 1975.

A.3, A.4 'Kathleen Lonsdale 1903-1971' by D.M.C. Hodgkin, *Biographical Memoirs of Fellows of the Royal Society*, vol 21 (1975), 447-484.

A.3 Copy of Memoir.

A.4 Lonsdale correspondence lent to Hodgkin for the compilation of the Memoir.

The letters (together with a little associated material) span the period 1927-1968. The bulk of the material dates from between 1949 and 1951 and relates to the participation by Soviet scientists at scientific meetings and other occasions in the UK.

Photocopies of correspondence relating to and written during the time of Lonsdale's imprisonment during the Second World War have been discarded; the originals are at A.47, A.48.

A.5-A.8 Biography by M. M. Julian, 1977-1978.

Maureen Julian was a colleague of Lonsdale's at University College London. She was writing a biography of Lonsdale. There is no evidence it was completed.

Biographical

- A.5 Correspondence from Julian to H.J. Milledge *re* progress with the biography, 1977-1978.
- A.6 Chapters 1-3, 1903-1927.
- A.7 Chapters 4-6, 1927-1943.
- A.8 Chapters 7-8, 1943-1949.
- A.9 Brief biographical notes, possibly written by D.M.C. Hodgkin for preface and dust-jacket of biography of Lonsdale.
- A.10-A.12 Correspondence *re* reminiscences of Lonsdale, collections of her writings, the fate of her archives etc., 1973-1975.
- A.10 With T. Lonsdale (husband), 1973-1975.
- A.11 Anthology of Lonsdale's religious writings, 1974-1975.

This was published as *The Christian life lived experimentally: an anthology of the writings of Kathleen Lonsdale*, ed. James Hough, London: Friends Home Service Committee, 1976.
- A.12 Miscellaneous correspondence, 1973-1975.
- A.13 'Dame Kathleen Lonsdale 1903-1971', Shell Educational Supplement 1989.
- A.14-A.17 Autobiographical notes ca 1940s-ca 1970**
- A.14 Lonsdale's manuscript notes of research activities, publications etc 1922-1946.

Biographical

- A.15 Manuscript and typescript curriculum vita.
- A.16, A.17 Lists of publications.
2 folders.
- A.18-A.26 Biographical accounts 1951-1970**
- See also A.36-A.38.
- A.18 'People of our time: 8. Kathleen Lonsdale', *English Illustrated*, February 1951.
- A.19 3pp typescript profile, ca late 1950s.
- A.20 Letter re interview for the *New Scientist*, May 1957.
- A.21 'Why so few women become scientists', interview with Ruth Jowett, *Melbourne Herald*, 1966.
- A.22 'Dame Kathleen Lonsdale FRS', *The Deliverer*, February - March 1967.
- A.23 'A distinguished person drops in - interview with Dame Kathleen Lonsdale', *News In Engineering*, January 1970.
- A.24 Typescript copy of biographical entry in *Contemporary British Chemists*, sent to Lonsdale, February 1970.
- A.25 'Dame Kathleen Lonsdale. She studies the physics of aging', *Science World*, 21 September 1970.
- A.26 Entries in biographical directories.

Biographical

A.27, A.28 Newspaper cuttings 1954-1970

Cuttings from UK and overseas newspapers reporting on activities and achievements of Lonsdale, 1954-1970.

See also A.35.

2 folders.

A.29-A.46 CAREER, HONOURS AND AWARDS 1945-1970

A.29-A.35 Election to the Fellowship of the Royal Society, 1945.

Lonsdale was one of the first two women to be elected to the Fellowship in 1945. The other was the Cambridge biochemist Marjory Stephenson.

A.29 Notification of election to the Fellowship, 23 March 1945.

A.30-A.34 Letters of congratulation.
In alphabetical order. Unindexed.

A.30 A.-C.

A.31 D.-H.

A.32 I.-O.

A.33 P.-S.

A.34 T.-Y.

A.35 Newspaper and magazine cuttings on the nomination and election of Lonsdale and Stephenson. 1945.

Biographical

- A.36 Appointment as Professor of Chemistry, University of London, 1949.
Notification 1949 and letters of congratulation 1950; minute recording her re-appointment 1962.
- A.37 Appointment as Governor, Bedford College for Women, University of London, 1949.
- A.38 Nomination and appointment to the Fellowship of University College London, 1952.
- A.39 Award of Davy Medal of the Royal Society, 1957.
The Medal was awarded to Lonsdale for her pioneering work in x-ray crystallography.
Article on the award, *Chemical Age*, 7 December 1957.
- A.40 Award of Honorary D.Sc., University of Wales, 1960.
Correspondence *re* arrangements and draft citation, 1960.
- A.41 Award of Honorary D.Sc., University of Leicester, July 1962 and Honorary D.Sc., University of Manchester, August 1962.
Papers and correspondence *re* awards.
- A.42 Invitation to serve on British Museum Committee on the National Reference Library of Science and Invention, November 1964.
- A.43 Award of Honorary LL.D., University of Leeds, 1967 and University of Lancaster, July 1967.
Two letters only.

Biographical

A.44 Conferment of the title of 'Professor Emeritus', University of London, upon Lonsdale, 1968.

This title was awarded to Lonsdale on her official retirement.

Proposal only.

A.45 Award of Sc.D., University of Oxford, June 1969.

'Encaenia' booklet including citation for Lonsdale.

A.46 Appointment as Visiting Professor of Chemistry, Harvard University, May 1970.

Lonsdale was appointed Visiting Professor for the second half of the Academic Year 1969-1970.

A.47-A.56

RELIGIOUS AND SOCIAL CONCERNS

1942-1970

Lonsdale and her husband joined the Religious Society of Friends in 1935. Lonsdale's beliefs were prominent in her life, most famously leading to her imprisonment on 22 January 1943 for refusing to pay a £5 fine she incurred for refusing to register for fire-watching duties. She had been voluntarily undertaking such duties prior to this and was probably exempt from duties as a mother of child under the age of 14 but objected to the absence of a 'conscience clause' in the Fire Watching Registration Order. She was released on 20 February but summoned before Magistrates the following month and again fined. The fine was paid by a well-wisher.

Through her imprisonment she developed a keen interest in penal reform and the conditions of prisons.

See Section H for further correspondence *re* Lonsdale's imprisonment.

A.47-A.51 Correspondence and papers relating to and during her time in Holloway Prison, 1942-1943.

A.47 Copy of letter from Lonsdale to the Minister of Labour and National Service explaining her objections to compulsory registration for service for war purposes, 29 May 1942; copy of 'Statutory Rules and Orders 1942 No. 1654 Emergency Powers (Defence)'; 2pp manuscript statement by Lonsdale of her opposition to all military warfare and work directed towards the war effort.

Biographical

- A.48 Correspondence 26 January - February 1943.
- This is chiefly letters to Thomas Lonsdale (husband) from Florence Stanger who visited Lonsdale in prison, reporting on conditions.
- A.49 Manuscript draft of letter from Lonsdale to the Governor of Holloway after her release, offering advice and criticisms of the prison regime and conditions, 25 February 1943.
- A.50 Press-cuttings, March 1943, including report on Lonsdale's second fine, 15 March 1943; 'Vera Brittain's Letter to Peace-Lovers', no. 106, 8 April 1943, on prison conditions.
- A.51 8pp manuscript 'Resume of Statement made at a Conference of the Howard League for Penal Reform [...] Sept. 4th 1943' by Lonsdale; *A Month in Holloway* by Kathleen Lonsdale, Prison Reform Council pamphlet, ca 1945.
- Both give detailed accounts of her time in prison.
- A.52 'Report of British Section' to Women's International League for Peace and Freedom by Lonsdale, 1953.
- Lonsdale was elected President of the British Section in 1953.
- 5pp duplicated typescript.
- A.53 Issue of *Time & Tide*, 30 December 1965 - 5 January 1966, with reference to views of Lonsdale on military intervention in Rhodesia.
- A.54 Miscellaneous correspondence with fellow Quakers and others, July 1969 - February 1971.
- A.55 Correspondence with inmate of Pentonville Prison, 1969-1970.
- A.55A Contents of a file.
- 9pp manuscript draft of a speech by Lonsdale entitled 'The Meaning of Science: A Christian View'; brief correspondence *re* science and religion, 1969, 1970; other papers.

Biographical

- A.56 Miscellaneous material: manuscript notes on religious, economic and social matters, duplicated typescript notes on world population and distribution.
- A.57-A.67 DIARIES AND PERSONAL NOTEBOOKS 1946-1969, n.d.**
- A.57 Diary for 1946.
A little intercalated material re meetings.
- A.58 Desk diary 1966.
- A.59 University College London desk diary 1967.
- A.60 University College London desk diary 1968.
- A.61 University College London desk diary 1969.
- A.62 Softback pocket notebook inscribed on front cover 'Words and Tales Worth Remembering'. N.d.
Used for anecdotes, cautionary tales and words of wisdom.
Some intercalated material.
- A.63 Spiral bound pocket notebook used from the front for 'Tales worth remembering' (similar to material in A.62) and from the back for notes on science and religion, ageing and other topics. N.d.
- A.64 Softback pocket notebook used for record of 'Books borrowed' from Lonsdale 1947-1965.

Biographical

A.65 Hardback notebook used for record of Lonsdale's 'Books and reprints lent 1951'. Used 1951-1966 but most pages not used.

Intercalated near front is correspondence *re* books lent by Lonsdale, 1952-1954.

A.66 Pages from loose leaf address book, with miscellaneous notes of changes of addresses and lists of addresses intercalated.

The loose leaf binder does not survive.

A.67 Hardback notebook used as address book.

A.68-A.87 PHOTOGRAPHS *ca* 1914-1968, n.d.

A.68 School group photographs featuring Lonsdale, *ca* 1914.

3 photographs.

A.69 Photograph of Lonsdale and other research students of Sir William Bragg at the Braggs' cottage at Chiddingfold, summer 1923.

With covering letter.

Others featured include W.T. Astbury, J.D. Bernal, Gibbs and Shearer.

A.70 Graduation photograph.

A.71 Photographs taken during reception at the residence of the President of Ireland, Dublin, 26 July 1943.

Also includes invitation.

The reception was held during the Colloquium on the Structure of Crystals, Institute for Advanced Studies, Dublin. See also F.2, F.3.

Not all the photographs feature Lonsdale.

9 photographs.

Biographical

- A.72 Portrait photograph of Lonsdale on her election to the Fellowship of the Royal Society, 1945.
- With covering letter.
- British Council photograph of Lonsdale in her laboratory, taken on her election to the Fellowship of the Royal Society.
- A.73 With Berta Karlik, Zürich, Switzerland, 1950.
- A.74 Photograph of Lonsdale, stamped on verso 'National Physical Laboratory of India', possibly taken during visit to India on her 'World Tour', 1954.
- A.75 Group photograph of the Council of the Royal Society at its Tercentenary, 1960.
- Features Lonsdale as a member of Council.
- A.76 Photographs taken during Sixth General Assembly of the International Union of Crystallography, Rome, Italy, September 1963.
- 6 colour photographs.
- A.77 Photograph of Lonsdale with her husband and children, Bexhill-on-Sea, 1966.
- A.78 Colour photographic slide of Lonsdale 'In the Iball's garden', Dundee, 1968.
- A.79 Associated Press portrait photograph of Lonsdale used in the Royal Society Biographical Memoir, n.d.
- A.80 Photograph of Lonsdale and two others, in ?the Soviet Union, n.d.
- A.81 Lonsdale with her husband, late in life, n.d.

Biographical

- A.82 Photographs of Lonsdale as a ?student, returned to H.J. Milledge, August 1975.

 With covering letter.

 2 photographs.
- A.83 Miscellaneous photographs of Lonsdale in the laboratory, her office and lecturing, n.d.

 4 photographs.
- A.84 Miscellaneous photographs of Lonsdale, n.d.

 3 photographs.
- A.85-A.87 Photographs of others.

 Lonsdale is not featured.
- A.85 Inscribed on verso 'Bedford College for Women [...] Prof. Harold Hilton (Maths) ~ 1921'.

 Photograph of gathering of researchers and students ?at Sir William Bragg's home (see A.69), n.d.
- A.86 Inscribed on verso '1931 Nernst, Einstein, Planck, Millikan, v Laue. In v. Laue's home'.

 Given to Lonsdale by 'Dr Ehrenberg 27.7.46'.
- A.87 Photograph of Dutch castle, inscribed on verso 'In remembrance of the XVIth meeting of "Het oudehoo" 24th - 26th May 1957' and signed by five colleagues.

Biographical

- | | | |
|------------------|---|------------------------|
| A.88-A.90 | FAMILY AND FRIENDS | 1923-1970, n.d. |
| A.88 | <p>'The ionization produced by the splashing of Mercury' by J.J. Lonsdale, <i>Phil. Mag.</i> (1910).</p> <p>J.J. Lonsdale was Lonsdale's father-in-law.</p> <p>'The flow of water in the annular space between two coaxal cylindrical pipes' by Thomas Lonsdale, <i>Phil. Mag.</i> vol. 46 (1923).</p> <p>Thomas Lonsdale's first scientific paper.</p> | |
| A.89 | Family and personal correspondence, 1952-1970. | |
| A.90 | Family memorabilia, n.d. | |
| A.91-A.96 | MISCELLANEOUS | ca 1920s-1971 |
| A.91 | Manuscript pages of translations of German scientific, technical and similar terms, headed 'German Vocab. K. Yardley'. Ca 1920s. | |
| A.92 | <p><i>The Souvenir Book of Crystal Designs</i> by M.H. Thomas, 1951.</p> <p>This booklet was produced for an exhibition at the Festival of Britain in 1951. It refers to Lonsdale as the first to suggest the use of crystal structure patterns in textile design (page 1).</p> | |
| A.93 | 1955 Japanese calendar, featuring a reproduction of a photograph of Lonsdale with a letter from her. | |
| A.94 | List of Lonsdale's stocks and shares, with brief correspondence, 1968. | |
| A.95 | Miscellaneous personal correspondence 1952, 1970. | |

Biographical

A.96

Copy of form letter by H.J. Milledge, sent to those writing to Lonsdale in ignorance of her death.

SECTION B

UNIVERSITY COLLEGE LONDON

B.1-B.501

B.1-B.97 TEACHING

B.98-B.404 'LABORATORY PERSONNEL' AND APPLICATIONS

B.405-B.451 ADMINISTRATION

B.452-B.484 ORDERS FOR LABORATORY EQUIPMENT

B.485-B.488 OPEN DAYS, 4 AND 5 MAY 1964

B.489-B.501 MISCELLANEOUS PAPERS

University College London

B.1-B.97	TEACHING	1943-ca 1971
	B.1-B.35 Undergraduate	
	B.36-B.58 Postgraduate	
	B.59-B.97 Miscellaneous papers	
B.1-B.35	Undergraduate	1949-ca 1971
	Lonsdale lectured in crystallography to 2nd and 3rd year Special Chemistry students.	
B.1, B.2	'Special III duplicated sheets for practical classes – practical BSc', contents of a file so inscribed.	
	Mostly manuscript and typescript drafts of worksheets (practical work) for 3rd year Special Chemistry students, including a list of the students, October 1954. 1949-1954.	
	2 folders.	
B.3-B.6	'MS material relating to S III', contents of 3 files so inscribed.	
	Manuscript notes, draft worksheets etc for lectures, ca 1951-ca 1955.	
	4 folders.	
B.7, B.8	'Chemistry Special Courses', contents of a file so inscribed.	
B.7	Papers re various lectures to Chemistry students including some on crystallography by Lonsdale, ca 1955.	
B.8	Correspondence between Lonsdale and various individuals working at the University of London, chiefly re the teaching of crystallography at various levels, 1959-1966.	

University College London

- B.9, B.10 'Special III – practical', contents of a file so inscribed.

Various typescript papers and manuscript notes, *ca* 1955-*ca* 1960.

2 folders.
- B.11-B.14 'Special III Lectures', contents of a file so inscribed.

Typescript papers for lectures, probably hand-outs, some with manuscript annotations by Lonsdale, with a few manuscript notes, 1960 or afterwards.

4 folders.
- B.15, B.16 '1964 hand-outs S III X-rays and crystals', contents of a file so inscribed.

Mostly typescript papers.

2 folders.
- B.17 'Duplicated sheets for S III', contents of a file so inscribed.

Lecture hand-outs, ?1960s.
- B.18, B.19 'Hexamine Practical Chemistry S III', contents of a file so inscribed.

Worksheets etc, including manuscript drafts, ?1960s.

2 folders.
- B.20 'Chemistry III Practical – urea', contents of a file so inscribed.

Worksheets etc, *ca* 1971.
- B.21-B.26 Miscellaneous papers *re* the 'Special III' course.

Various hand-outs, worksheets etc, *ca* 1949-*ca* 1969.

6 folders.

University College London

- B.38-B.40 'MSc 1953-1954', contents of a file so inscribed.
- Various manuscript and typescript papers and photographs used for the teaching of the MSc in Crystallography, 1953-1956.
- Some papers are in the hand of Judith Milledge. Included also are brief correspondence to Milledge and examination papers.
- 3 folders.
- B.41-B.46 'MSc Space-groups - written and typed sheets', contents of a file so inscribed, ca 1953 and afterwards.
- B.41 Notebook containing manuscript notes in Lonsdale's hand for preparation of lectures or for lecture handouts etc, with inserted manuscript and typescript pages.
- From opposite end are manuscript notes in Lonsdale's hand, possibly while she was an undergraduate at Bedford College for Women, 1919-1922. The notes follow from the cover which is inscribed 'Intermediate Physics'.
- B.42-B.46 Typescript and manuscript material, mostly for lecture handouts etc, 1949-1953 or afterwards.
- 5 folders.
- B.47 'Tracings for MSc space-group class', contents of a file so inscribed.
- Tracings of figures, 1953 or afterwards.
- B.48 'Paper III 1968 MSc exam papers', contents of a file so inscribed.
- Various papers mostly *re* the 1968 MSc examination, including examination papers, and *re* examinations from earlier years. 1960-1968.
- B.49-B.53 'Magnetism (lecture notes)'.
- Typescript and manuscript papers, including manuscript drafts of lectures by Lonsdale, 1953 or afterwards.
- 5 folders.

University College London

- B.62 'Status of crystallography', contents of a file so inscribed.
- Brief correspondence and papers *re* the status and future of crystallography as a subject in its own right, with particular reference to Birkbeck College, University of London, and University College London, 1962-1965, n.d.
- Included is a letter from Lonsdale to J.D. Bernal and a copy of a typescript by Bernal entitled 'The History and Present Status of Crystallographic Teaching'.
- B.63-B.68 Miscellaneous papers, including a few drafts for lectures (B.67), with brief correspondence, *re* the undergraduate and postgraduate courses in crystallography and general matters concerning the teaching of crystallography at UCL. 1946-1948, 1964-1966, n.d.; included at B.68 is a notebook inscribed 'Lecture notes 1947-8' inside cover containing intercalated papers and photographs.
- 6 folders.
- B.69 Notices etc of 'crystallographic colloquia', mostly held in the University of London, and of lectures by visiting professors, 1956-1967, n.d.
- Found with the material relating to teaching.
- B.70 'The principles and the structure of the solid and the liquid state', a series lectures by J.D Bernal and others (Lonsdale not included), 1948, 1949.
- Copies of typescript outlines of the lectures.
- B.71, B.72 'Barbara Low lectures', contents of a file so inscribed.
- Copies of typescript papers for a series of lectures.
- 2 folders.
- B.73-B.92 Summer schools in X-ray Crystallography.
- Summer schools were run by a number of universities for the purpose of providing a technical grounding in crystallography to scientists working in industry. The University of London ran one such course to which Lonsdale and the Department of Chemistry at University College London contributed.

University College London

B.98-B.400 **'LABORATORY PERSONNEL'** **1946-1976, n.d.**

Contents of a box so inscribed.

Correspondence, with related papers, principally with research students and workers at Lonsdale's laboratory; a few other individuals are included. Most of the material relates to proposed research projects, including funding and recommendations etc. There is also later correspondence between Lonsdale and some of her former research students.

The original order (alphabetical by name of individual) has been preserved. Any titles found on the original files have been reproduced.

B.98, B.99 **Ahmed, M. Saleh** **1949-1962**

Ahmed worked at University College London for a period ending in July 1950. He later became Assistant Professor of Physics at the University of Alexandria, Egypt.

Correspondence, with drafts of papers by Ahmed corrected or revised in Lonsdale's hand, with a few later letters, 1949-1952, 1955, 1962.

See also B.100.

2 folders.

B.100 **'Ahmed etc'** **?[1949-1952]**

Photographs apparently relating to Ahmed's research (see B.98, B.99), some annotated on back by Lonsdale.

B.101 **Alexander, E.** **1958, 1959**

Alexander was an Honorary Research Assistant on sabbatical leave from the Hebrew University of Jerusalem.

Correspondence, chiefly *re* matters concerning studies on Gallium.

B.102 **Andersen, E. K.** **1957-1959**

Andersen was from the Royal Veterinary and Agricultural College, Copenhagen, having obtained an English Council scholarship.

Correspondence.

University College London

- B.103, B.104 **Badami, D.V.** 1954-1965
- Badami was from the University of Allahabad, India.
- Correspondence, chiefly *re* recommendations; typescript of a paper by Badami intended for publication.
- 2 folders.
- B.105 **Belford, R.C.E.** 1969, 1973
- She took the MSc in Crystallography at Birkbeck College while also undertaking research for Lonsdale.
- Correspondence, chiefly *re* recommendations.
- B.106 **Bennett, P.** 1963
- Correspondence *re* proposed research.
- B.107 **Biedl, A.** 1962, 1963
- Biedl was awarded a British Council scholarship which he later turned down.
- Correspondence etc *re* the aforementioned application.
- B.108-B.113 **Bones, R.A.** 1949-1963
- Bones was accepted as a research student in 1949. He later obtained a post at the University of Hong Kong.
- Correspondence etc *re* research work at University College London, and intermittent later correspondence *re* career.
- 6 folders.
- B.114-B.117 **Brown, C.J.** 1961-1967
- Brown was appointed Honorary Research Associate in 1961.
- Correspondence etc *re* research topics and career.
- 4 folders.

University College London

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|-------------|--|-----------|
| B.118 | Brown, R.N. | 1956 |
| | Letter enquiring about research opportunities. | |
| B.119-B.123 | Bullen, G.J. | 1951-1966 |
| | Bullen undertook research from 1950 to 1954. | |
| | Correspondence etc <i>re</i> career and research work. | |
| | 5 folders. | |
| B.124-B.126 | Canepa, F.G. | 1956-1966 |
| | Canepa undertook research for a few months in 1956, having earlier been an MSc student at University College London. | |
| | Correspondence <i>re</i> arrangements for research and later career etc. | |
| | 3 folders. | |
| B.127-B.129 | Canut, M. | 1949-1965 |
| | She was a student of J.L. Amoros of the University of Barcelona and carried out research under Lonsdale in 1955, and possibly again in 1957. | |
| | Correspondence, chiefly <i>re</i> research and later career; included is earlier correspondence with Amoros. | |
| | 3 folders. | |
| B.130-B.135 | Cartz, L. | 1950-1968 |
| | Studied for an MSc and a PhD under Lonsdale. | |
| | Correspondence etc, chiefly <i>re</i> PhD thesis and later career. | |
| | 6 folders. | |

University College London

- B.136-B.141 **Chandrasekhar, S.** 1955-1967
- Chandrasekhar carried out research on extinction in crystal diffraction from 1957 to ?1959.
- Correspondence etc *re* arrangements, research work and later career and scientific work, 1955-1967.
- 6 folders.
- B.142 **Chan Y.M.** 1958
- Brief correspondence *re* possible research work.
- B.143 **'Miss Chiplunker (& olivine HP/HT calculations)'** 1971, 1972
- Brief correspondence *re* a project on olivine at the Manchester Institute of Science and Technology and other matters, 1971, 1972.
- B.144 **Clarke, P.J.** 1968-1973
- Clarke began work for a PhD in 1969.
- B.145 **Clow, G.R.** 1970
- Correspondence *re* proposed research work.
- B.146-B.148 **Coppola, J.C.** 1958-1970
- Coppola, from the University of Pittsburgh, and his wife began research work in 1959.
- Correspondence etc *re* arrangements and later career.
- 3 folders.
- B.149, B.150 **Cranley, M.J.** 1946-1958
- Correspondence *re* research work and later career.
- 2 folders.

University College London

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|-------------|--|------------|
| B.151 | Data, C.S. | 1956, 1957 |
| | Brief correspondence <i>re</i> a research opportunity under Lonsdale. | |
| B.152 | Denehan, C.J. | 1964, 1965 |
| B.153 | Devine, S. | 1968, 1970 |
| B.154-B.156 | Drain, L.E. | 1950-1969 |
| | Drain worked as a researcher from 1952 to 1954. | |
| | Correspondence, chiefly <i>re</i> later career; included is a typescript draft of one of his articles. | |
| | 3 folders. | |
| B.157 | Ehrenberg, M. | 1958-1967 |
| | She was a postgraduate student (starting sometime before 1958), becoming a part-time researcher. | |
| | Correspondence etc <i>re</i> research work and later career etc. | |
| B.158 | Elliott, J.C. | 1961-1967 |
| | Elliott was a postgraduate student ?[1962], 1963. | |
| | Correspondence <i>re</i> registration and later career. | |
| B.159 | Emerson, D. | 1967 |
| | Emerson took up postgraduate work in 1967. | |
| | Brief correspondence with manuscript summary by Emerson of his research project. | |

University College London

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|--------------|---|------------|
| B.160, B.161 | Falqui, M.T. | 1960, 1961 |
| | She was from the University of Cagliari and was accepted for postgraduate work for the 1960-1961 session. | |
| | Correspondence, chiefly <i>re</i> arrangements etc. | |
| | 2 folders. | |
| B.162-B.164 | Farag, M.S. | 1949-1969 |
| | Farag, from Fouad 1st University, Cairo, was accepted as a research student in 1950. | |
| | Correspondence <i>re</i> progress of research and later career, including some scientific correspondence and notes and photographs relating to a thesis or publication. | |
| | 3 folders. | |
| B.165 | Fawcett, J.K. | 1965 |
| | Brief correspondence <i>re</i> possible research work. | |
| B.166 | Flachsbart, I. | 1955 |
| | Brief correspondence <i>re</i> possible research for the 1956/1957 session. | |
| B.167 | Flack, H.D. | 1964-1968 |
| | Flack was accepted to work on a PhD in 1965. | |
| | Correspondence, some <i>re</i> later career. | |
| B.168 | Fleming, J.E. | 1967 |

University College London

- B.169-B.172 **Fletcher, R.** 1955-1967
- Fletcher was a part-time research student from the West Indies, beginning in 1957.
- Correspondence etc, some *re* later career.
- 4 folders.
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- B.173-B.177 **Forrester, J.D.** 1956-1964
- Forrester was from Cambridge, and was awarded a Research Studentship in 1956.
- Correspondence *re* progress of his research etc and later career.
- 5 folders.
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- B.178, B.179 **French, M.** 1963-1967
- French was a technician, later Departmental Assistant, who intended to register for postgraduate studies.
- Correspondence *re* career.
- 2 folders.
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- B.180 **Frueh, A.J.** 1974, 1976
- Frueh was Professor of Geology at the University of Connecticut, and spent a few months at University College London in 1976 during a sabbatical.
- Brief correspondence *re* visit.
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- B.181-B.183 **Fullick, A.A.** 1950-1956
- Fullick was accepted to do research in 1950.
- Correspondence *re* later career etc, with research notes.
- 3 folders.

University College London

- B.192 **Graeme-Barber, A.** 1966-1968
- She was employed as a Departmental Assistant.
- B.193 **Grainger, C.T.** 1967
- Brief correspondence *re* an enquiry about possible research.
- B.194-B.202 **Grenville-Wells (later Milledge), H. J.** 1949-1965
- Judith Grenville-Wells was employed as Assistant Research Physicist in the Diamond Research Laboratory of Industrial Distributors Ltd, Johannesburg, before undertaking postgraduate study under Lonsdale.
- Correspondence with Lonsdale and others and papers *re* Milledge's career, particularly the arrangements for her initial appointment, and research awards, visits etc; scientific correspondence.
- See H.104 for further correspondence of Milledge.
- 9 folders.
- B.203 **Guha, S.K.** 1966, 1967
- Guha appears to have worked under Lonsdale at some time before 1966.
- Brief correspondence *re* professional matters and recommendations, with carbon copy of a typescript article by Guha.
- B.204-B.215 **Gupta, M.P.** 1950-1969
- Gupta came to do research in 1950, having obtained a scholarship from the Government of India. He returned in 1967 during a period of sabbatical leave from the University of Ranchi.
- Correspondence and papers *re* scientific and professional matters.
- Included are drafts of papers by Gupta, some in Lonsdale's hand (titles indicate Gupta's authorship), and figures etc.
- 12 folders.

University College London

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|--------------|---|------------|
| B.216 | Halliwell, V.A. | 1960, 1963 |
| | Halliwell was employed in the 'workshop' in the Department of Chemistry. | |
| | | |
| B.217, B.218 | Harris, J.W. | 1964-1970 |
| | Harris began postgraduate studies in 1964. | |
| | Correspondence, including some <i>re</i> later career. | |
| | 2 folders. | |
| | | |
| B.219 | Hartree, E.F. | 1953 |
| | Hartree was at the Molteno Institute of Biology and Parasitology, University of Cambridge. | |
| | Scientific correspondence and papers <i>re</i> research on dihydroxymaleic acid which was related to the work of M.P. Gupta (see B.204-B.215). | |
| | | |
| B.220 | Haugh, I. | 1964-1966 |
| | Haugh was a researcher under Lonsdale some time before 1964. | |
| | Correspondence <i>re</i> career and professional matters. | |
| | | |
| B.221 | Henriques, R.C. | 1963-1968 |
| | Henriques was from the University of the West Indies and studied for a PhD under Lonsdale, starting in 1965. | |
| | Correspondence <i>re</i> research funding etc. | |
| | | |
| B.222 | Hill, C.R. | 1955-1961 |
| | Hill was a graduate of University College London who worked as a researcher during the 1955 / 1956 session and took the MSc in Crystallography. | |
| | Correspondence <i>re</i> proposed research. | |

University College London

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|-------------|---|------------------|
| B.223 | Hilton, F. | 1956 |
| | <p>Hilton was a former student of Lonsdale.</p> <p>Brief correspondence <i>re</i> career.</p> | |
| B.224-B.229 | Hoff, E. | 1962-1970 |
| | <p>Hoff worked as a researcher for a few months during 1962. He returned to take up an Honorary Research Fellowship in 1966.</p> <p>Correspondence <i>re</i> arrangements and funding for the two periods of research, 1962-1970.</p> <p>6 folders.</p> | |
| B.230 | Hough, E. / Hudson, M. | 1967, 1968 |
| | <p>Contents of a file.</p> <p>Brief correspondence <i>re</i> an enquiry by Hough about possible research work; brief correspondence <i>re</i> recommendations for Hudson.</p> | |
| B.231 | Iball, J. | 1955, 1966, 1967 |
| | <p>Iball first worked with Lonsdale at the Royal Institution in 1932 and they subsequently maintained professional contact.</p> <p>Correspondence etc, mostly <i>re</i> recommendations.</p> | |
| B.232 | Joel, N. | 1955, 1956 |
| | <p>Joel attended Lonsdale's MSc in Crystallography (intercollegiate classes).</p> <p>Brief correspondence etc <i>re</i> later recommendations and career.</p> | |
| B.233 | Kammerman, N. | 1963 |
| | <p>Brief correspondence <i>re</i> the possibility of research work.</p> | |

University College London

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| B.234 | Kantola, M. | 1948, 1949 |
| <p>Kantola was from the State Institute of Technical Research, Helsinki, Finland. He visited Britain between February and May 1949 principally to work on X-ray crystallography.</p> <p>Brief correspondence <i>re</i> arrangements and correspondence arising.</p> | | |
| B.235 | Katz, L. | 1958-1960, 1966 |
| <p>Katz was Assistant Professor of Physics at Rensselaer Polytechnic Institute, New York. He spent the 1959 / 1960 session in Lonsdale's laboratory studying low temperature crystallography and teaching methods.</p> <p>Correspondence <i>re</i> arrangements, with brief later professional correspondence.</p> | | |
| B.236 | El-Kholy, S.B. | 1956 |
| <p>Brief correspondence etc <i>re</i> possible research.</p> | | |
| B.237 | Knight, P. | 1954-1961 |
| <p>Knight undertook a research project in 1949.</p> <p>Correspondence <i>re</i> later career.</p> | | |
| B.238 | Lackey, M.G. | 1974 |
| B.239-B.241 | Lasheen, M.A. | 1949-1952, 1960-1968 |
| <p>Lasheen, from Farouk I University, Alexandria, was accepted as a PhD student in 1949. He returned in 1962 for a one year project in diamagnetic susceptibilities of organic compounds.</p> <p>Correspondence etc <i>re</i> arrangements and research progress; scientific correspondence.</p> <p>3 folders.</p> | | |

University College London

- B.242 **Lea, S.G.** 1965
- Brief correspondence *re* possible research work.
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- B.243, B.244 **Leela, M.** 1953-1963
- She was accepted as a postgraduate student in 1954, and in 1957 was employed as Research Assistant. She had earlier been a Government of India Research Scholar.
- Correspondence etc *re* funding for the post and later career.
- Included is a typescript draft abstract of a paper 'Temperature Dependence of the Diamagnetic Anisotropy of Benzil' by Leela and Lonsdale.
- 2 folders.
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- B.245 **Leite, C.R.** 1972
- Leite was awarded a Fellowship by the Brazilian Research Council for the 1972 / 1973 session. The topic of research was inclusions in Brazilian diamonds.
- Brief correspondence etc *re* arrangements and research topic.
- Included is brief correspondence etc *re* the visit to University College London of W.G. Rolim de Camargo, a Brazilian professor, November 1970. This material was found with the papers relating to C.R. Leite whose name was inscribed on the original file.
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- B.246-B.249 **Lipson, H.S.** 1949-1967
- Henry Lipson was Lonsdale's friend of many years.
- Professional and scientific correspondence.
- 4 folders.
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- B.250 **Loehr, M.L.** 1959
- Loehr was a research student, finishing his studies in 1959 or earlier.

University College London

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| B.251 | Lloyd, J.H.W. | 1955, 1956 |
| | Lloyd appears to have been a research student in 1955 / 1956. | |
| | Correspondence, mostly <i>re</i> funding for research. | |
| B.252, B.253 | Low, B. | 1951-1954 |
| | Correspondence, mostly <i>re</i> an article by Low submitted to <i>Nature</i> . | |
| | 2 folders. | |
| B.254 | MacArthur, I. | 1961-1967 |
| | MacArthur was one of Lonsdale's colleagues at the Royal Institution and a friend of many years. | |
| | Correspondence etc, mostly <i>re</i> recommendations. | |
| B.255 | McCarthy, A.E. | 1964, 1966 |
| | Brief correspondence <i>re</i> Lonsdale's assistance in a research project conducted at the College of Advanced Technology, Birmingham. | |
| B.256 | McCartney, J.H. | 1967 |
| | Copy of application form and a few miscellaneous papers found with it. | |
| B.257 | McKie, D. | 1961-1967 |
| | Brief correspondence etc <i>re</i> McKie's candidature for the Chair of History and Philosophy of Science at University College London, 1954, 1955. | |
| | Correspondence <i>re</i> recommendations and professional matters. | |
| B.258 | Machin, P. | 1967 |
| | Brief correspondence <i>re</i> possible postgraduate studies. | |

University College London

- B.259 **EI Mallawany, A.M.S.** 1966
- EI Mallawany worked in Lonsdale's laboratory in March and April 1965.
- Brief correspondence *re* recommendations etc.
- B.260 **Malterud, I.** 1952-1955
- She appears to have been a research student from 1953.
- Brief correspondence *re* research work etc.
- B.261 **Mason, P.J.** 1964-1968
- She was appointed to a technician's post in 1965.
- B.262-B.271 **Mason, R.** 1950-1965
- Mason (later Sir Ronald Mason) was a research student from 1953.
- Correspondence etc *re* recommendations etc, and later professional correspondence and papers.
- Included at B.271 is correspondence etc, 1953, between 'Katie' [Lonsdale] and 'Tiny' [H.M. Powell], of the Chemical Crystallography Laboratory, Oxford, concerning research connected to Mason's work. This correspondence was found with material described above.
- 10 folders.
- B.272 **Mendel, H.** 1960
- Brief correspondence *re* Mendel's intention to resign his post (at Royal Dutch Shell Research Laboratories) in order to do research under Lonsdale.
- B.273 **Mendelssohn, K.A.G.** 1967-1975
- Kurt Mendelssohn's daughter, Monica, was a research student from 1970 and appointed to the part-time academic staff at University College London in 1974.
- Correspondence between Mendelssohn and Samuel Tolansky *re* Monica Mendelssohn's proposed postgraduate study etc.

University College London

- B.274 **Melo, S.** 1950, 1951
Brief correspondence *re* arrangements for research work.
- B.275-B.277 **Meyer, H.O.A.** 1961-1969
Meyer joined Lonsdale's research group in 1961 under a contract with the National Physical Laboratory.
Correspondence, principally *re* recommendations and later career, 1961-1969.
3 folders.
- B.278 **Miller, F.** 1965
Miller was a lecturer at Kenyon College, Ohio, USA.
Brief correspondence *re* Miller's intention to spend a sabbatical leave in Britain.
- B.279, B.280 **Mueller, G.** 1954, 1964, 1965
Mueller was a research student, 1948-1950.
Correspondence mostly *re* later and career.
2 folders.
- B.281 **Munn, R.** 1968
Munn appears to have been a post-doctoral research worker, beginning in 1968.
Correspondence etc *re* application, research topics etc.
- B.282 **Narduzzo, V.G.** 1947-1956, 1965
Narduzzo was employed as an Instrument Maker from 1948.
- B.283 **Nave, C.** 1972, 1973
A few papers relating to Nave's research work.

University College London

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|--------------|---|-----------|
| B.284, B.285 | Nave, E. | 1953-1968 |
| | Nave was appointed technician in crystallography in 1948, later appointed chief technician. | |
| | Correspondence <i>re</i> career. | |
| | 2 folders. | |
| B.286 | Neave, M. | 1965 |
| | Neave was employed as a Temporary Computing Assistant in 1965. | |
| B.287 | Nuffield, E.W. | 1961-1965 |
| | Nuffield took up a short-term research post in 1963. | |
| | Correspondence <i>re</i> arrangements and brief later professional correspondence. | |
| B.288-B.290 | O'Donnell, M. | 1965-1968 |
| | She took up a research position in 1966. | |
| | Correspondence, mostly <i>re</i> arrangements, some <i>re</i> later recommendations. | |
| | 3 folders. | |
| B.291, B.292 | Owston, P.G. | 1948-1953 |
| | Owston was a postgraduate student. | |
| | Correspondence <i>re</i> matters connected with his research work and report. | |
| | 2 folders. | |
| B.293 | Pacault, M. | 1949 |
| | Letter enclosing list of publications. | |

University College London

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|-------------|--|------------|
| B.294-B.296 | Pant, M.L. | 1954-1966 |
| | Pant was accepted as a postgraduate student in 1954. | |
| | Correspondence etc <i>re</i> research work etc and later career. | |
| | 3 folders. | |
| B.297 | Pascoe, M.W. | 1967 |
| | Pascoe was an acquaintance of Lonsdale; they do not seem to have had any professional association. | |
| | Correspondence <i>re</i> recommendations. | |
| B.298 | Pasternak, R.A. | 1948-1955 |
| | Pasternak was a research student. | |
| | Correspondence, chiefly <i>re</i> his research work. | |
| B.299 | Pauling, L.C. | 1952 |
| | Letter to Pauling from Lonsdale <i>re</i> Pauling's intention to visit Britain. | |
| B.300 | 'Penfold, D.W., Johnson, M.W., King, H.W. – helium liquifier' | 1968, 1969 |
| | Contents of a file so inscribed. | |
| | Brief correspondence <i>re</i> various research projects. | |
| B.301 | Pepinsky, R. | 1952 |
| | Letter <i>re</i> professional matters. | |
| B.302 | Peskett, J.M. | 1961, 1962 |
| | Correspondence <i>re</i> possible postgraduate research under Lonsdale and related matters. | |

University College London

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|--------------|--|-----------------|
| B.303 | Pettinau, G.M. | n.d. |
| B.304-B.306 | Popova, S.V.

Popova was working at the Institute for High Pressure Physics, Moscow, and visited Lonsdale's laboratory for six months in 1967-1968.

Correspondence etc, mostly <i>re</i> arrangements for her visit.

3 folders. | 1965-1968 |
| B.307 | Porter, D.W.

Brief correspondence <i>re</i> proposed research. | 1962 |
| B.308, B.309 | Pramatus, S.

She had been at the University of Uppsala, Sweden, before taking the MSc in Crystallography at Birkbeck College and working for Lonsdale, 1966-1968.

Correspondence, chiefly <i>re</i> arrangements and matters arising from the end of her studies.

2 folders. | 1966-1969 |
| B.310 | Puxley, D.C.

Puxley started postgraduate work in 1967.

Brief correspondence <i>re</i> research possibilities etc. | 1967-1969 |
| B.311 | Quodling, F.M.

Letter <i>re</i> request to visit Lonsdale's laboratory. | 1955 |
| B.312 | Rankin, D.J.

Rankin had been Lonsdale's Research Assistant at the Royal Institution, 1941-1945.

Brief correspondence <i>re</i> later career and recommendations. | 1952-1956, 1966 |

University College London

- B.313-B.315 **Rao, K.V. Krishna** 1955-1970
- Rao was a research student and was awarded a PhD in 1958.
- Correspondence etc *re* progress of his research and later recommendations, with scientific and professional correspondence.
- 3 folders.
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- B.316 **Richards, T.J.P.** 1955-1957, 1968
- Richards conducted research, 1955-1956.
- Correspondence, including career.
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- B.317 **Riley, D.P.** 1955
- Riley appears to have been a former colleague of Lonsdale.
- Correspondence *re* recommendations.
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- B.318, B.319 **Rogers, G.L.** 1960-1968
- Lonsdale had known Rogers since he was employed at the Cavendish Laboratory, Cambridge, over twenty years previously.
- Correspondence *re* recommendations.
- 2 folders.
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- B.320 **Rood, A.P.** 1967-1974
- Rood conducted research starting in ?[1967].
- Correspondence *re* matters connected with his research, with a few letters *re* his later career.
-
- B.321 **Rosenquist, A.M.** 1950-1952
- Rosenquist was on the staff of the Universitetets Kjemiske Institutt, Oslo. She held a research position under Lonsdale for the 1950 / 1951 academic year.
- Correspondence etc *re* arrangements and research work.

University College London

- B.322 **Rout, D.** [after 1960]
Draft of letter *re* recommendations.
- B.323 **Rowatt, E.** 1963
Brief correspondence *re* scientific demonstration at University College London Hospital Medical School, 1963.
- B.324-B.327 **Rummery, T.E.** 1964-1967
Rummery was accepted to do postdoctoral research in 1966.
Correspondence *re* arrangements, with typescript drafts of a paper.
Included at B.327 is scientific correspondence with Edward W. Hughes, 1965, found with the material described above and possibly related to it.
4 folders.
- B.328-B.336 **'R (miscellaneous)'** 1954-1968, n.d.
Contents of a file. Correspondence etc with scientists, other individuals and organisations (in Britain and abroad).
The correspondence relates to various professional matters such as conferences, publications, teaching and research topics. Arranged chronologically.
9 folders.
- B.337, B.338 **Sadanaga, R.** 1951-1965
Sadanaga commenced research in 1952, having been awarded a British Council scholarship.
Correspondence, including later scientific correspondence.
2 folders.
- B.339 **Sakowski, A.C.** 1962
Brief correspondence *re* possible research work.

University College London

- B.340-B.344 **El-Sayed, K.** 1960-1969
- She was a PhD student from Egypt (United Arab Republic), starting in 1960.
- Correspondence *re* research and thesis with later professional and personal correspondence.
- 5 folders.
- B.345 **Scheidt, S.** 1966
- She was employed as a Technical Assistant.
- B.346 **Schmidt, G.** 1965
- Schmidt worked at the Weizmann Institute of Science, Rehovoth, Israel, and appears to have been a friend of Lonsdale.
- Brief correspondence *re* arrangements to meet.
- B.347-B.349 **Scott, B.H.** 1973, 1974
- She was a postgraduate student.
- Correspondence and papers relating to research work and funding.
- 3 folders.
- B.350 **'Secretary'** 1958-1962
- Contents of a file so inscribed.
- B.351-B.355 **Shahat, M.** 1949-1952
- Shahat registered for a PhD in 1949.
- Correspondence and papers *re* research and matters arising.
- Included are numerous pages of manuscript calculations, many in Lonsdale's hand *re* maleic acid and related compounds, and drafts of a paper by Shahat.
- 5 folders.

University College London

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|--------------|--|------------|
| B.365 | Styles, P. | 1963 |
| | She was appointed technician. | |
| B.366, B.367 | Sutor, D.J. | 1964-1969 |
| | She arrived from New Zealand in 1966, having been awarded a Medical Research Council grant to research on urinary calculi. | |
| | Correspondence etc <i>re</i> arrangements, progress of research and later recommendations. | |
| | 2 folders. | |
| B.368-B.376 | 'S (miscellaneous)' | 1954-1968 |
| | Contents of a file. Correspondence with scientists, other individuals and organisations (in Britain and abroad). Arranged chronologically. | |
| | The correspondence relates to various professional matters such as publications, invitations to speak at functions. | |
| | 9 folders. | |
| B.377 | Tanimura, Y. | 1963, 1965 |
| | Brief correspondence <i>re</i> Lonsdale's assistance in finding Tanimura research work in Britain and <i>re</i> later career. | |
| B.378 | 'Technicians' | 1962-1967 |
| B.379 | Thomas, J.O. | 1965-1968 |
| | Thomas was a postgraduate student, starting in 1966. | |
| | Correspondence chiefly <i>re</i> arrangements and funding. | |

University College London

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|-------------|---|------------|
| B.380-B.383 | 'T (miscellaneous)' | 1954-1958 |
| | Correspondence with scientists, postgraduate students, other individuals and organisations (in Britain and abroad). | |
| | The correspondence relates to various professional matters; some scientific correspondence is included. | |
| | 4 folders. | |
| B.384 | 'U (miscellaneous)' | 1954-1966 |
| | Correspondence with various scientists etc <i>re</i> professional matters. | |
| B.385 | Vance, E.R. | 1969, 1970 |
| | Vance arrived from Australia in 1969 to conduct research on radiation damage in diamonds. | |
| | Correspondence <i>re</i> arrangements and the topic of research. | |
| B.386 | Varwell, A. | 1963 |
| | Letter to Lonsdale <i>re</i> proposed undergraduate study, with reply. | |
| B.387 | Varwell, B. | 1959-1966 |
| | She was employed as a Departmental Assistant. | |
| | Correspondence, including personal correspondence. | |
| B.388 | Vlasse, M. | 1964 |
| | Brief correspondence <i>re</i> the possibility of post-doctoral research under Lonsdale. | |
| B.389 | Winchester, L. | 1964, 1965 |

University College London

- B.390 **'Y (miscellaneous)'** 1955-1966
Correspondence with various scientists *re* professional matters.
- B.391 **'Z (miscellaneous)'** 1954-1966
Correspondence with various scientists *re* professional matters and
correspondence *re* matters connected with a part-time postgraduate student,
1954-1966.
- B.392-B.402 'Applications', contents of a file so inscribed.
Correspondence etc chiefly *re* applications for postgraduate research, 1947-
1973.
11 folders.
- B.403 List of staff and students and timetables for courses, 1949-*ca* 1954.
- B.404 Small notebook containing manuscript notes by Lonsdale.
From front: brief information mostly relating to postgraduate students or
applicants (academic background, address, grants applied for etc); from
back: 'Abstracts of important papers with references', 1957 or later.
- B.405-B.451 ADMINISTRATION 1949-1970**
- B.405-B.432 Research grants.
Material relating to grant applications etc by Lonsdale for various research
projects under her direction, 1954-1969.
- B.405-B.409 British Empire Cancer Campaign.
Correspondence and papers concerning grant applications and renewals
and employment of staff for research on carcinogenic compounds, 1954-
1962.
5 folders.

University College London

- B.410-B.423 Medical Research Council.
- Correspondence and papers concerning grant applications and renewals and employment of staff for research, principally on bladder stones, 1956-1969.
- 14 folders.
-
- B.424-B.428 Wellcome Trust.
- Correspondence etc *re* grant applications and payments chiefly for computing expenses associated with work on the crystal structure of organic molecules, 1957-1964.
- 5 folders.
-
- B.429-B.432 Other grant-giving bodies.
- Miscellaneous correspondence *re* grants provided by various organisations, including the Department of Scientific and Industrial Research, 1958-1968, n.d.
- 4 folders.
-
- B.433-B.451 Policy, boards and committees.
- Papers and correspondence relating to policy and administration at University College London, 1949-1970.
-
- B.433-B.B.435 'Student health radiation protection', contents of 2 files so inscribed
- Correspondence and papers *re* safety issues etc associated with the use of radioactive materials in Lonsdale's laboratory, 1949-1966.
- 3 folders.
-
- B.436-B.438 'Quinquennial Policy', contents of a file so inscribed.
- Various papers *re* development policies for the quinquennia 1952-1957 and 1962-1967.
- 3 folders.

SECTION C

RESEARCH

C.1-C.388

C.1-C.83 ROYAL INSTITUTION AND EARLY PAPERS

C.84-C.349 UNIVERSITY COLLEGE LONDON

C.350-C.388 PHOTOGRAPHS

Research

C.1-C.83 ROYAL INSTITUTION AND EARLY PAPERS

C.1-C.15 Notebooks dating from Lonsdale's two periods at the Royal Institution, 1923-1927 and 1931-1946.

Only one notebook can be dated to the first period; the undated ones contain bibliographical references indicating that they belong to the second period.

She began research under W.H. Bragg at University College London in 1922. Bragg moved his research team to the Royal Institution in 1923.

C.1 Hardback notebook in Lonsdale's hand inscribed 'X-rays and Crystal Structure' and '1924' at front.

Notes, data and graphs *re* experiments.

C.2 Hardback notebook inscribed 'Magnetic susceptibilities' on cover.

Experimental and theoretical notes.

A few notes relating to experiments are dated 1936.

C.3 Hardback notebook inscribed 'Orthodiphenylbenzene' used from front and back.

Notes, numerical data and figures, n.d.

There is also inserted material which includes a letter to Lonsdale, 1937.

C.4 Notebook with cover missing.

One page is headed 'Benzil', followed by a reference to an experiment on '22.9.1937'.

C.5, C.6 Hardback notebook in Lonsdale's hand inscribed 'Royal Institution' and 'Beryl..NH₄..ZnS (Wurtzite)..BeO (B?[ro]mallite)' on cover, with inserted correspondence and papers.

C.5 Notebook: notes, experimental data and graphs.

Research

- C.6 Scientific correspondence between Lonsdale and W. Hume-Rothery, 1944-1945; other papers and one photograph, ca 1944-1946.
This material was found inserted at the beginning of the notebook at C.5.
- C.7 Softback notebook inscribed 'Fourier analysis terms...Royal Institution'.
Numerical data only, n.d. The book is mostly unused.
- C.8 Softback notebook inscribed 'Diffuse Spot Measurements' used from front and back.
Notes on various experiments; headings include 'Fluorescence and phosphorescence of diamonds' and 'Sodium and lithium'. The date '17.5.44' appears in the notes from the back.
- C.9 Softback notebook inscribed 'References'.
Bibliographical references and other notes, n.d.
- C.10 Softback notebook used from front and back.
Mostly numerical data, n.d. At the back is a heading 'Diamond'.
- C.11 Hardback notebook inscribed 'Crystal structure [1.3.5 triphenyl benzene]'.
Notes and experimental data, n.d.
- C.12 Hardback notebook: notes, data and graphs, including inserted material, n.d.
Partly relating to studies of triphenyl benzene.
- C.13 Softback notebook: mostly numerical data, partly relating to 'Fourier analysis of $C_6(CH_3)_6$ '.
- C.14 Hardback notebook used from front and back: numerical data, n.d.

Research

- C.15 Hardback notebook: numerical data and graphs, n.d.
- C.16-C.22 'MS material – magnetism, divergent beam Geiger counter measurement'.
 Contents of a box so inscribed.
- C.16 Correspondence *re* matters associated with the production of the
International Tables for X-Ray Crystallography, 1930.

 Included is a letter to Lonsdale from W.H. Bragg in which he welcomes the
possibility of her return to the Royal Institution.
- C.17 Brief correspondence *re* the publication of a paper by Lonsdale, 1931, with
manuscript graphs and figures by her.
- C.18, C.19 Correspondence, with manuscript figures, *re* experiments on phenazine and
similar compounds, 1939, 1940.

 2 folders.
- C.20 'Sorbic acid', contents of a file so inscribed.

 Correspondence etc with J.M. Robertson, October, November 1940.
- C.21, C.22 'Historical papers and experiments', contents of a file so inscribed.

 Manuscript notes by Lonsdale.

 Included are notes entitled 'Diamagnetic Anisotropy of Organic Crystals'
(C.21) and a manuscript draft of a paper by Lonsdale 'Additivity of
diamagnetic susceptibilities in cyanuric and benzene derivatives' (C.22).
- C.23-C.35 'Early ms material', contents of a file so inscribed.

 This file contains some separate files.
- C.23-C.26 Correspondence, mostly with scientists, covering various topics, 1932-1941,
n.d.

 4 folders.

Research

- C.27, C.28 'Historical survey of early X-ray work on crystals of organic compounds (1913-1926)'.
- 43pp manuscript draft by Lonsdale so entitled with letter from Harry Carlisle to Judith Milledge, 1978, explaining the provenance of the draft which he had discovered in his possession.
- Above the title of the draft is a pencil note in Lonsdale's hand: 'written in 1932'.
- 2 folders.
- C.29, C.30 'Reciprocal lattice charts of diamond, Pb etc', contents of a file so inscribed.
- C.29 Manuscript notes and graphs, mostly in Lonsdale's hand.
- C.30 Scientific correspondence found with the material in C.29, 1938, 1942; reprint.
- C.31-C.35 Contents of a file.
- C.31 Glass negative entitled 'Laue photograph of 1.3.5. triphenylbenzene along pseudo-hexagonal axis'.
- C.32-C.34 Glass negatives.
- 3 folders.
- C.35 Miscellaneous manuscript notes found with the material in C.31-C.34.
- C.36-C.53 'Early research correspondence and ms', contents of a file so inscribed.
- This file contains some separate files.
- C.36, C.37 'Royal Institution - W.H. Bragg', contents of a file, so inscribed.
- Correspondence between Lonsdale and Bragg, with manuscript scientific notes by both, 1939, 1941, n.d.
- 2 folders.

Research

- C.38-C.41 Contents of a file.
- C.38 Scientific correspondence with Dorothy Hodgkin and Barbara Low, 1944, 1945.

 Included is a letter by Hodgkin *re* the structure of penicillin, 1945.
- C.39 'Vibration Amplitudes of Atoms in Crystals', by Lonsdale.

 23pp typescript draft, with manuscript corrections, and references.
- C.40, C.41 Manuscript notes by Lonsdale.
- C.40 Included are pages inscribed '1944'.
- C.41 Included are pages headed 'Notes for lecture' and 'Atomic Movements in Crystals'; a letter, 1947, *re* a visit by Lonsdale to the USA; off-print.
- C.42, C.43 'Divergent beam X-ray photography – textures of crystals'.

 Principally manuscript notes and graphs by Lonsdale; X-ray photographs; 2 letters to Lonsdale from A.J.C. Wilson, 1943 (C.42).

 2 folders.
- C.44-C.49 Manuscript notes and graphs by Lonsdale.

 6 folders.
- C.50-C.53 X-ray photographs *re* penicillin research.

 Those in C.50 and C.52 are glass negatives.

 4 folders.
- C.54-C.58 'C₁₈H₃₈ Martin Cranley A. Muller & self', contents of a file so inscribed.

 The file contained some separate files which are described individually.

Research

- C.54-C.56 File inscribed 'Weissenburg chart angles & spacings with photographs of $C_{18}H_{38}$ Dr Muller'.
- C.54 Copies of letters by Lonsdale to 'Dr Muller' with related papers, October, November 1940.
- C.55, C.56 X-ray photographs and photographic print, with a few manuscript notes by Lonsdale. The date 1940 is inscribed on some X-ray photographs.
2 folders.
- C.57, C.58 ' $C_{18}H_{38}$ - notes for paper given to Dr A. Muller 1941', contents of a file so inscribed.
Manuscript notes and numerical data, a few pages dated 1940.
2 folders.
- C.59 'Lithium', content of a file so inscribed.
Letter to Lonsdale with enclosed and related pages of data, 1941.
- C.60, C.61 'Divergent Beam Methods', contents of a file so inscribed.
- C.60 73pp manuscript notes by Lonsdale entitled 'Divergent beam photography... Kathleen Lonsdale 1943'.
- C.61 Manuscript notes, mostly by Lonsdale, with one letter, 1945.
- C.62-C.79 'Ice + NH_4 etc', contents of a box so inscribed.
- C.62-C.64 'Conference on ice & water in relation to soil problems', contents of a file so inscribed.
The conference appears to have been held at the Royal Institution, 23 May 1944. The participants included Lonsdale, Sir Henry Dale and Sir Alfred Egerton.

Research

- C.62 Copy of typescript summary of the discussions at the conference.
- C.63 Correspondence, mostly *re* research on ice, 1942, 1944 (almost all 1944).
- C.64 Manuscript graphs and figures found with the correspondence in C.63.
- C.65-C.71 Correspondence etc *re* research on ice, 1944-1960, n.d. (mostly 1944-1952).
7 folders.
- C.72, C.73 'The Crystal Structure of Ice', by Lonsdale.
- C.72 19pp typescript draft, so entitled, with extensive manuscript revisions.
- C.73 Figures etc, probably related to the draft in C.72.
- C.74-C.77 Reports, research notes, photographs and other papers *re* research on ice, *ca* 1945-*ca* 1950.
Much of the material is in Lonsdale's hand.
4 folders.
- C.78 Papers relating to the British Glaciological Society of which Lonsdale was a member, 1949, 1950.
- C.79 Re-prints of articles by Lonsdale, 1946-1958.
- C.80-C.83 Miscellaneous correspondence and papers, 1928-1946.
- C.80 Miscellaneous scientific correspondence with German scientists, 1928, 1929.

Research

- C.81 Brief correspondence with Linus Pauling *re* a paper by Lonsdale 'Magnetic Anisotropy and Electronic Structure of Aromatic Molecules', *Proceedings of the Royal Society of London A* **159**, 1937. 1936, 1937.
- C.82 Scientific correspondence with K.S. Krishnan, Professor of Physics, Indian Association for the Cultivation of Science, Calcutta, 1936-1938.
- C.83 Miscellaneous papers, 1945, 1946.
- C.84-C.349 UNIVERSITY COLLEGE LONDON 1947-1970, n.d.**
- A chronological sequence of papers documenting various research work undertaken by Lonsdale during her years at University College London.
- Miscellaneous correspondence and papers are at C.318-C.349.
- C.84-C.97 '1947 USA and Geiger Measts [measurements]', contents of a box so inscribed.
- This material relates to Lonsdale's visit to the USA, January-July 1947, as a Special Research Fellow at the National Institute of Health, Bethesda, Maryland.
- C.84 Small hardback notebook inscribed 'Geiger Counter Measurements' on cover, 1947.
- Contains data and notes in Lonsdale's hand.
- C.85, C.86 'Geiger Counter Measurements on Single Crystals', contents of a file so inscribed.
- This material relates to a paper by Lonsdale 'Geiger-counter measurements of Bragg and diffuse scattering of X-rays by single crystals', *Acta Crystallographica* **1**, 1948.

Research

- C.85 'Geiger Counter Measurements of Diffuse Scattering by Single Crystals'.
Manuscript draft in Lonsdale's hand, so entitled. Paginated 1-13.
Another draft (or drafts) has been written and crossed out on the reverses of these pages.
- C.86 Manuscript notes and graphs by Lonsdale found with the draft in C.85.
- C.87 'Geiger Counter Measurements of Bragg, Laue and Diffuse Scattering by Single Crystals'.
21pp manuscript draft, so entitled, with corrections; typescript draft of the same with manuscript corrections; letter *re* publication, 1947.
- C.88 Re-print of the paper and another re-print by Lonsdale (1948).
- C.89 'Diagrams for Geiger Counter paper', contents of a file so inscribed.
- C.90-C.93 Manuscript notes and graphs by Lonsdale.
4 folders.
- C.94 Set of graphs of experimental data, with manuscript annotations by Lonsdale.
- C.95 Correspondence *re* the manuscript of Lonsdale's paper and other scientific matters, 1947-1950.
- C.96 Abstracts and discussions of papers given at the 1947 summer meeting of the American Society for X-ray and electron diffraction, Quebec, 23-26 June 1947.
Lonsdale gave at least two papers at the meeting.

Research

- C.97 Letters to Lonsdale from the British Iron & Steel Research Association, with related papers, concerning Geiger Counter techniques, 1949.
- Lonsdale attended at least one meeting of the Association.
- C.98-C.112 'Letters etc relating to research on thermal vibrations', contents of a box so inscribed.
- C.98-C.102 Correspondence etc with various scientists *re* thermal vibrations in crystals and related topics, 1947, 1956-1965, n.d.
- 5 folders.
- C.103 'Thermal vibrations in crystals – seminar Aug 1 1957 M?SU'.
- Manuscript notes by Lonsdale so entitled.
- C.104 'Diffraction studies of vibrations of atoms and molecules in crystals, with special reference to benzil', by Lonsdale. Publication details unknown.
- 6pp manuscript draft; carbon copy of a typescript revised version, and cards containing manuscript data in Lonsdale's hand.
- C.105 2 typescript drafts, with manuscript corrections, by Lonsdale entitled 'Thermal movements in solids' and 'Restless solids'.
- C.106 Untitled and incomplete typescript of a paper; 2pp manuscript draft of part of the same.
- C.107-C.110 Miscellaneous typescript, manuscript and printed papers: notes, data, figures and re-prints, *ca* 1956-*ca* 1962.
- Included are a few letters in C.107.
- 4 folders.
- C.111 Photographic prints, some annotated on back.
- Contents of an envelope inscribed 'Prints (Li and Na) sent to Prof. ?Honjo 19.6.1963.'

Research

- C.112 X-ray photographs, n.d.
Contents of an envelope inscribed 'Photo-oxide of anthracene'.
- C.113-C.125 'Early neutron diffraction', contents of a box so inscribed.
Some of this material appears to relate to a paper 'Neutron Diffraction in Crystals', by Lonsdale, *Nature* **164**, 1949.
- C.113, C.114 Correspondence *re* research on neutron diffraction, 1949-1952.
2 folders.
- C.115 'Neutron diffraction by crystals, Friday evening discourse at the Royal Institution', 18 March 1949.
13pp manuscript draft, so entitled, of lecture by Lonsdale; 2 incomplete manuscript drafts of the same.
- C.116-C.125 Various manuscript and typescript papers, including drafts of lectures entitled 'Neutron diffraction in crystals' and a few letters. *Ca* 1949-*ca* 1958.
Included at C.123 are manuscript and typescript drafts of a paper by Lonsdale 'Neutrons and Atom Patterns in Crystals'.
10 folders.
- C.126-C.133 General scientific correspondence, with manuscript notes by Lonsdale and other papers, 1949-1962, n.d.
8 folders.
- C.134, C.135 Various papers, mostly manuscript notes by Lonsdale, almost all undated.
Included at C.134 are manuscript notes by Lonsdale headed '3.7.1946 New Brancepeth Colliery'.
2 folders.
- C.136-C.138 Divergent beam X-ray photography.

Research

- C.136, C.137 'Divergent-Beam X-ray Photography of Crystals', by Lonsdale, *Phil. Trans. R. Soc. Lond.* **A240**, 1947.
- C.136 Brief correspondence, mostly *re* the above paper by Lonsdale, including requests for re-prints, 1950-1962.
- Included are 2pp manuscript notes in Lonsdale's hand, found with the correspondence.
- C.137 Proof of Lonsdale's article, with figures (possibly unrelated).
- C.138 Correspondence *re* the work of a postgraduate student on divergent beam X-ray crystallography, 1951.
- C.139-C.143 Interatomic distances.
- C.139-C.142 Correspondence with various scientists *re* preparation and publication of lists of interatomic distances, 1952-1958.
- The lists were principally the work of L.E. Sutton, though Lonsdale made a significant contribution. They were published by the Chemical Society.
- 4 folders.
- C.143 Manuscript entitled 'Interatomic distances'.
- Not in Lonsdale's hand. Found with the correspondence in C.139-C.142.
- C.144-C.148 'Magnetism', contents of a file so inscribed.
- C.144 Extensive manuscript notes by Lonsdale on small pieces of paper, found tied together, some used in a lecture on crystal magnetism; loose manuscript notes by Lonsdale.
- C.145 Scientific correspondence etc, 1953.
- C.146 Re-prints.

Research

- C.147, C.148 Research on benzil.
- C.147 Manuscript notes by Lonsdale, one page entitled 'Benzil: diamagnetic anisotropy'; manuscript notes in another hand; letter to Lonsdale, 1959.

See B.243, B.244 for related papers.
- C.148 'Temperature variation of the diamagnetic anisotropy of organic crystals'.

13pp typescript draft, so entitled, with manuscript revisions by Lonsdale; re-prints.
- C.149 'Structure of LiBH₄', contents of a file so inscribed.

Letter to Lonsdale, 1954, with related papers.
- C.150-C.154 'Definitions', contents of a file so inscribed.

Correspondence and papers *re* plans to produce a published glossary of terms used in X-ray crystallography, 1954, 1955, with a few earlier papers 1948, 1950.

Included are manuscript drafts by Lonsdale.

5 folders.
- C.155-C.165 'Methonium compounds', contents of a box so inscribed.

A research programme to investigate n-methonium salts began in 1955 under Lonsdale's direction. The work was assisted by a grant from the Medical Research Council.

See C.312 for further papers relating to hexamethonium bromide.
- C.155-C.158 'Correspondence – curarising compounds', contents of a file so inscribed.

Correspondence and papers, 1954-*ca* 1959.

Included are reports on investigations and progress, experimental data etc.

4 folders.

Research

- C.159 Correspondence and papers, 1964-1966.
- C.160 'Structural studies of hexa- and deca-methonium bromides, $(\text{CH}_3)_3 \text{N}(\text{CH}_2)_n \cdot 2\text{Br} \cdot 2\text{H}_2\text{O}$ in relation to their pharmacological action', by Lonsdale, H.J. Milledge and L.M. Pant, *Acta Crystallographica* **20**, 1965.

9pp typescript draft, with manuscript revisions, with abstract, references, tables.
- C.161 'Evidence for the existence of long CH.....O intermolecular bonds in crystals', by Lonsdale. Publication details unknown.

5pp manuscript draft with revisions.
- C.162 'Temperature dependence of the single-crystal reaction: anthracene photo-oxide tp (anthraquinone / anthrone) + H, O etc, Lonsdale and E. Nave.

7pp typescript; a few manuscript notes and 2 photographs found with the typescript.
- C.163-C.165 Miscellaneous material including graphs, manuscript notes, some by Lonsdale, and computer printouts of data, ca 1964-1966.

Included is a 2pp typescript inscribed 'XRAG Nottingham April 14 1966'.

3 folders.
- C.166, C.167 Contents of an unmarked file.
- C.166 Scientific correspondence with various individuals, 1954-1958, n.d.
- C.167 Various papers including manuscript notes by Lonsdale.

Found with the correspondence in C.164.

Research

- C.168-C.174 'Urea', contents of a file so inscribed. Drafts and other material relating to a paper 'Anisotropic temperature vibrations in crystals. I. Direct measurements of Debye factors for urea', *Acta Crystallographica* 9, 1956.
- Various manuscript and typescript drafts of the paper, some incomplete and heavily revised.
- At C.173 are later drafts. Included at C.174 are a few letters, 1952-1956.
- 7 folders.
- C.175, C.176 Research on thermal vibrations of atoms in organic crystals.
- Correspondence and papers, 1956, 1957.
- Included at C.176 is a manuscript draft of a lecture by Lonsdale entitled 'Problems of simple structures' with related manuscript notes.
- 2 folders.
- C.177-C.180 'Graphite', contents of a file so inscribed.
- C.177 Brief correspondence, 1959, 1967; manuscript notes by Lonsdale.
- C.178, C.179 Computer printout data, with annotations by Lonsdale, 1965.
- 2 folders.
- C.180 Re-prints.
- C.181-C.298 Research on urinary calculi (bladder stones).
- Lonsdale and her colleagues undertook a wide-ranging study of urinary calculi at the suggestion of D.A. Andersen, Chief Medical Officer of the Salvation Army. The project was supported by the Medical Research Council and examined stones from around the world, both contemporary and from museums.

Research

- C.181-C.193 Correspondence etc mostly *re* requests by Lonsdale for specimens and information relevant to her studies, 1963-1970, n.d.
- Included at C.192 is a carbon copy of a typescript paper 'Composition of urinary calculi by X-ray diffraction. Collected data from various localities', by Lonsdale, D.J. Sutor and S. Wooley, *British Journal of Urology* **40**, 1968.
- Lonsdale contacted a large number of academic institutions in various countries and some British schools with medical records dating back many years.
- 13 folders.
- C.194 'Airline pilots', contents of a file so inscribed.
- Correspondence etc *re* studies of urinary calculi of pilots, 1964-1967.
- C.195 'My correspondence re stones', contents of a file so inscribed.
- General correspondence *re* research on stones, 1966-1969.
- C.196, C.197 'MRC: calculi reports', contents of a file so inscribed.
- Correspondence etc *re* various matters connected with the research, including Lonsdale's acceptance of an offer to present a paper at a symposium on renal stone research held at the University of Leeds, 17-19 April 1968. 1967, 1968.
- Included at C.196 is a typescript draft of a paper by Lonsdale 'The Formation of Urinary Calculi', *Hosp. Med.*, November 1968, and manuscript notes *re* the University of Leeds symposium, probably for a lecture.
- 2 folders.
- C.198 Small softback notebook inscribed 'Dame Kathleen Lonsdale Renal Stone Symposium'. April 1968.
- Notes, in Lonsdale's hand, taken at lectures. The names of the lectures are given.

Research

- C.199-C.207 'Endemic bladder stones', contents of 4 files so inscribed.
Correspondence and papers, including progress reports, 1964-1969.
Included at C.206 is a copy of a typescript draft of a lecture (or lectures) by Lonsdale.
9 folders.
- C.208-C.213 'Dog stones', contents of a file so inscribed.
Correspondence and papers *re* research on urinary calculi in dogs, 1964-1966.
Included at C.210, C.211 are drafts of a paper 'Crystallography and Calculi', by Lonsdale *et al.*
6 folders.
- C.214, C.215 'Urinary calculi in different animal species', contents of a file so inscribed.
Correspondence etc, 1964-1968.
2 folders.
- C.216, C.217 'Gallstones Prof. Rains renal stone', contents of a file so inscribed.
Correspondence and papers, 1964, 1965.
2 folders.
- C.218, C.219 'Endemic bladder stones : steuvite, whewellite, weddellite etc', contents of a file so inscribed.
Manuscript notes by Lonsdale and others and computer-generated data, 1964.
2 folders.
- C.220, C.221 Miscellaneous correspondence, notes and photographs, 1967-1970, n.d.
2 folders.

Research

- C.222 Softback notebook inscribed 'Endemic bladder stone research' on cover.

Notes by Lonsdale relating to studies of various groups of stones, ca 1964-1968.
- C.223 Small hardback notebook.

Notes by Lonsdale relating to studies of various groups of stones, ca 1964-1968.
- C.224, C.225 'Bladder and renal stones – MRC reports etc',

Correspondence and papers, 1964, 1965.

Included are progress reports and a typescript of a lecture
- C.226, C.227 'MRC report', contents of a file so inscribed.

Reports with brief correspondence *re* application for renewal, 1966.

2 folders.
- C.228-C.248 Correspondence and papers, 1964-ca 1969.

Included are typescript drafts of papers by, or co-authored by, Lonsdale (C.237); typescript drafts etc by D.J. Sutor (a researcher working for Lonsdale); reports, data and X-ray photographs.

21 folders.
- C.249 Contents of a small ringbinder.

Miscellaneous manuscript notes etc by Lonsdale, partly relating to urinary calculi, ca 1964-1969.

Some material appears to relate to other research.
- C.250-C.265 Files of papers concerning studies of specific groups of urinary calculi.

Include are manuscript notes etc by Lonsdale.

The material is described by file; titles are given.

Research

- C.250 'Individual children's stones'.
Correspondence and reports, 1964, 1965.
- C.251 'Table of general results'.
Correspondence and data, 1964-1966.
- C.252 'Thailand'.
Correspondence and data, 1965.
- C.253 'Spain'.
Correspondence, with manuscript notes and data, 1966, 1967.
- C.254, C.255 'Newberyite'.
Correspondence and papers, 1966, 1967.
2 folders.
- C.256 'UCH [University College Hospital]'.
Correspondence etc with the University College Hospital Medical School,
1966, 1967.
- C.257, C.258 'Turkish bladder stones'.
Correspondence; report; manuscript draft (in Lonsdale's hand) and
typescript of paper by Lonsdale *et al.* 'Composition of urinary calculi.
Collected data from various localities. III. Turkey, *British Journal of Urology*
40, 1968; X-ray photographs and data, 1966.
2 folders.
- C.259 'King's College Hosp. Medical School, Royal National Orthopaedic Hospital,
St Paul's Hospital'.
Correspondence with X-ray photographs, 1967.

Research

- C.260 'Table of UCL results'.
Data, ca 1964-1968.
- C.261 'Norwich'.
Data, ca 1964-1968.
- C.262 'Czechoslovakian stones'.
Typescript of a paper 'Composition of urinary calculi by X-ray diffraction. Collected data from various localities, II. Czechoslovakia', by Lonsdale *et al.*, *British Journal of Urology* **40**, 1968; data. Ca 1964-1968.
- C.263-C.265 'MS of papers'.
Correspondence; manuscript and typescript drafts of a paper co-authored by Lonsdale: 'Composition of urinary calculi by X-ray diffraction. Collected data from various localities, I. Norwich', *British Journal of Urology* **40**, 1968; and other papers. 1966-ca 1968.
3 folders.
- C.266 Notebook in Lonsdale's hand headed on first page 'Details of analyses of reports on collections of urinary calculi'.
- C.267 Papers relating to the material in C.250-C.266 found in an unmarked file. Ca 1968.
- C.268-C.273 Photographs of urinary calculi and X-ray photographs, ca 1968.
6 folders.
- C.274 'Lecture notes on bladder stones', contents of an envelope so inscribed.
Manuscript notes by Lonsdale, ca 1964-ca 1969.

Research

- C.275, C.276 'Whewellite twin', contents of a file so inscribed.

Letter to Lonsdale, 1964, with report, data and photographs.

2 folders.
- C.277-C.282 'Whewellite', contents of a file so inscribed.

Photographs, data etc, *ca* 1964-*ca* 1969.

6 folders.
- C.283 Miscellaneous correspondence, 1964-1969.
- C.284, C.285 Miscellaneous published papers by Lonsdale or Lonsdale *et al.*
- C.284 Manuscript drafts and typescript of 2 papers relating to the material C.250-
C.267, with re-prints; 'X-ray diffraction studies of urinary calculi', by Lonsdale
and D.J. Sutor, *Renal Stone Research Symposium*, 1969; human stones.
- C.285 'Composition of urinary calculi, 1772 to 1967', by Lonsdale; typescript draft
entitled 'Historical and geographical differences in the pattern of incidence of
urinary stones considered in relation to possible aetiological factors'.
- C.286-C.292 Miscellaneous papers: reports, notes, data, drafts of papers.

At C.290 is a small untitled notebook containing notes on specific groups of
stones.

7 folders.
- C.293-C.297 Photographs of urinary calculi and of related X-ray diffraction patterns.

Brief correspondence, 1966, and a few other papers are at C.297.

5 folders.
- C.298 Album of slides relating to research on urinary calculi.

Research

- C.299-C.309 'Spot size correction and photography', contents of a file so inscribed.
- C.299-C.302 Correspondence etc, 1962-1964.
4 folders.
- C.303 'Photographic density of X-ray spots given by a divergent beam, oblique and normal incidence', by Lonsdale (publication details unknown).
4pp manuscript draft, with manuscript notes found with it; later typescript draft.
- C.304, C.305 Contents of a file inscribed 'X-rag [X-ray Analysis Group] Meeting'.
Programme for Autumn Conference of the X-ray Analysis Group, 12 and 13 November 1964 which lists Lonsdale as a speaker on 'Errors arising from absorption, extinction and geometrical factors'; manuscript notes by Lonsdale, probably *re* her lecture and other papers.
2 folders.
- C.306 'Collection of intensity data by film methods and assessment of their accuracy. Discussion of sources of error'.
2 manuscript drafts of a lecture by Lonsdale so entitled.
- C.307 18pp typescript draft of the same title, with manuscript revisions; brief correspondence arising from the paper, 1964, 1965.
- C.308, C.309 Miscellaneous papers found with those in C.299-C.307.
2 folders.
- C.310 'Dianthracene etc', contents of a file so inscribed.
Brief correspondence with Aeronautical Research Laboratories, Ohio, USA, 1963; manuscript notes, some by Lonsdale.

Research

- C.311 Contents of an unmarked file.
- 'The difference method of determining non-rigid body vibrations. I. Dinitrohydroxyanthraquinone', by Lonsdale, H.J. Milledge and D. Walley, [probably published] 1965 or after.
- 2pp incomplete manuscript draft so entitled, with notes and graphs etc.
- C.312 'Hexamethonium bromide', contents of a file so inscribed.
- Correspondence etc relating to an article by Lonsdale, probably 'Correlation of structure and blockage activity for the n-methonium compounds, *Nature Lond.* **206**.
- C.313, C.314 'Solid state reactions'.
- Scientific correspondence etc, 1966-1968.
- 2 folders.
- C.315 Brief correspondence and a few papers *re* research on the ageing process, 1967.
- Included are a few pages of manuscript notes, one headed 'Questions re 'Physics and Ageing''. See G.76-G.88 for papers *re* Lonsdale's Presidential Address to the British Association for the Advancement of Science, 1967.
- C.316 'Butyne (1,4) diol films BU1', contents of a file so inscribed.
- Brief correspondence, with a few related papers, 1968.
- C.317 'IR Spectra & powder photos', contents of a file so inscribed.
- Graphs, data and X-ray photographs. Some graphs inscribed '1969'.
- C.318-C.321 Miscellaneous correspondence, 1949 (one letter), 1953, 1964-1968.
- 4 folders.

Research

- C.361 'Production of X-ray intensity measurement apparatus - X-ray spectroscopy', contents of a file so inscribed.
- C.362 'Single crystal methods - rotation oscillation Weissenberg Precession', contents of a file so inscribed.
- C.363 Other photographs found with those in C.350-C.362.
- C.364 Manuscript notes and figures by Lonsdale, found with the material in C.350-C.363.
- C.365 'Iron oxides naphthaline macrocycle trichloroborazole C₁₆H₁₆ films', contents of a file so inscribed.
2 letters to Lonsdale; figures etc. 1953.
- C.366 'Eller machine pix X-ray pics for exhibition misc photos', contents of a box so inscribed.
- C.367-C.371 'Field ion microscopy, Al metal, bubbles, snowflakes, contents of a file so inscribed.
Included at C.371 is brief correspondence, 1963, 1965.
5 folders.
- C.372 Album of photographs with captions in Lonsdale's hand.
- C.373, C.374 'Diffuse spots', contents of a file so inscribed.
2 folders.
- C.375-C.378 'Equipment and apparatus', contents of a file so inscribed.
Included at C.378 is brief correspondence.
4 folders.

Research

C.379-C.388

Miscellaneous photographs, with a few letters and other papers.

Included at C.385 is a photograph of Lonsdale with John Kendrew and others at the International Union of Crystallography Symposium, Madrid, 1956.

10 folders.

International Tables for Crystal Structure Determination

- D.8, D.9 'Printed matter'. Contents of a file so inscribed.
- Correspondence and papers *re* the production and distribution etc of *International Tables*, 1946-1949.
- 2 folders.
-
- D.10-D.15 'Papers, letters, etc from A.L. Patterson *re* International Tables (not likely to be required further).' Contents of 4 files so inscribed.
- A.L. Patterson was the Chairman of the Commission for the Revision of the *International Tables*.
- Correspondence and papers concerning the early work of the Commission and the appointment of its members, 1946-1948.
- 6 folders.
-
- D.16 Letters to Lonsdale from George S. Parry and related manuscript calculations by Lonsdale, 1950-1951.
- Contents of an unmarked file.
-
- D.17-D.19 'Dictionary IT Vol. I'. Contents of a file so inscribed.
- Correspondence and drafts for preparation of the Dictionary of Crystallographic Terms for Volume I of the *International Tables* (in various languages), 1950-1952.
- 3 folders.
-
- D.20, D.21 'Suggestions re Vol. I'. Contents of a file so inscribed.
- Manuscript notes, drafts and calculations mostly by Lonsdale, with a typescript draft and brief correspondence. 1951, 1952.
- The material appears to relate to the preparation of Volume I of the *International Tables*.
- 2 folders.

International Tables for Crystal Structure Determination

- D.22, D.23 'Early papers – discussion and correspondence *re* tables of contents'.
Contents of a file so inscribed.
- Correspondence and papers *re* the preparation of the *International Tables*,
1946-1949.
- Included is a 5pp typescript with manuscript annotations by Lonsdale.
- 2 folders.
- D.24-D.30 'Vol. I'. Contents of 3 files so inscribed.
- Correspondence and papers *re* the preparation of the *International Tables*,
chiefly Volume I, 1945-1950 (almost all the material is 1946-1949).
- Included are pages of manuscript notes and calculations by Lonsdale.
- 7 folders.
- D.31, D.32 'Publisher'. Contents of a file so inscribed.
- Correspondence etc *re* the publication of the *International Tables* and the
Structure Reports, 1948, 1949.
- Included is a letter *re* arrangements for two lectures by Lonsdale at Uppsala
University on 16 September 1948.
- 2 folders.
- D.33-D.35 Correspondence, *re* various matters, in particular suggestions for the
financing of the production of the *International Tables*, 1948.
- Contents of an unmarked file.
- 3 folders.
- D.36-D.42 'Kynoch Press'. Contents of a file so inscribed.
- Kynoch Press, owned by Imperial Chemical Industries Ltd, was the publisher
of the *International Tables*. The International Union of Crystallography
experienced considerable financial difficulties in the production and
publication of the *International Tables*.
- Correspondence etc *re* publication of the *International Tables* and the
financial matters referred to above, 1949-1955, n.d.
- 7 folders.

International Tables for Crystal Structure Determination

- D.43 'Structure Reports'. Contents of a file so inscribed.

Correspondence etc *re* the publication of *Structure Reports*, 1949, 1950.
- D.44-D.46 'German-English-Russian Glossary of Crystallography'. Contents of a file so inscribed.

Correspondence and papers, 1949-1953.

3 folders.
- D.47-D.55 ' λ values standard spacings'.

Scientific correspondence and papers, including manuscript papers by Lonsdale, 1944-1954 (the correspondence is chiefly 1949-1954).

9 folders.
- D.56-D.60 'Original typescript for Volume I (Space Groups), done by H.J. Milledge to an exact layout to save money during typesetting'.

Typescript draft with manuscript revisions and annotations and a few printed pages.

Kept in the order in which found.

5 folders.
- D.61-D.71 Correspondence with manuscript and typescript notes and drafts, and printed material *re* the preparation of Volumes 1 to 3, 1943-1955 (chiefly 1949-1955).

Found with the draft material in D.56-D.60.

11 folders.
- D.72-D.76 'Editors and letters from Editorial Commission'. Contents of a file so inscribed.

Correspondence with notes etc, *re* preparation of the *International Tables*, 1948-1950. The principal correspondent is Norman F.M. Henry.

Found with the material in D.56-D.71.

5 folders.

International Tables for Crystal Structure Determination

- D.77-D.80 Correspondence etc *re* various matters relating to the preparation of the *International Tables*, 1948-1957, 1962-1968.
- Many of the letters are carbon copies. A number of these are inscribed with a number in red pencil.
- 4 folders.
-
- D.81-D.87 'IT Finance'. Contents of a file so inscribed.
- Correspondence and papers *re* financial matters associated with the production and marketing of the *International Tables*, 1952-1963.
- 7 folders.
-
- D.88-D.97 Correspondence and papers *re* the distribution and marketing of *International Tables*, 1950-1959.
- 10 folders.
-
- D.98, D.99 Contents of a file inscribed 'Vol. I Supplement'.
- Correspondence and papers, including part of a manuscript draft by Lonsdale, *re* preparation of the supplement to Volume 1, 1954-1957.
- 2 folders.
-
- D.100, D.101 Contents of a file inscribed 'Space-Group Theory - MS not used for Vol I, I.T.'
- Correspondence and papers, including manuscript notes by Lonsdale, 1950-1952.
- 2 folders.
-
- D.102-D.106 Contents of a file inscribed 'Space-Group Theory - derivation of cubic symmetry elements'.
- Various typescript and printed material and manuscript notes or draft by Lonsdale, *ca* 1950-*ca* 1962.
- 5 folders.

International Tables for Crystal Structure Determination

- D.107, D.108 Contents of a file inscribed 'Vol. III - Orientation of crystals'.
Correspondence and papers, 1947-1950.
2 folders.
- D.109 Contents of a file inscribed 'Vol. III and other recent IT letters'.
Correspondence etc, 1963, 1964.
- D.110-D.112 Contents of a file inscribed 'Dumond & Cohen – Fundamental Constants'.
Correspondence, 1964, 1965.
3 folders.
- D.113-D.154 General correspondence and papers *re* preparation, production and sales of
the *International Tables* and associated matters, 1948-1970.

Included are typescript and manuscript drafts (by Lonsdale) of parts of the
text.
- D.113-D.132 1948-1954.
20 folders.
- D.133-D.154 1956-1970.
22 folders.
- D.155-D.160 Series of paperback notebooks, inscribed 'K. Lonsdale', containing
manuscript (pencil) diagrams of structures.

The diagrams are numbered and have further references. They relate either
to the *International Tables* or to *Structure Factor Tables* (see D.164-D.170).

6 notebooks.

International Tables for Crystal Structure Determination

- D.161-D.164 Series of paperback notebooks in Lonsdale's hand containing manuscript formulae and data on structures.
- The data is presented in numbered rows, the numbers corresponding to those of the diagrams in D.155-D.160.
- 4 notebooks.
- D.165-D.171 *Simplified Structure Factor and Electron Density Formulae for the 230 Space Groups of Mathematical Crystallography* (shorter name: *Structure Factor Tables*), by Lonsdale, published for the Royal Institution, 1936.
- D.165-D.170 149pp manuscript draft formulae and data entitled 'Simplified structure factor and electron density formulae for the 230 space-groups'.
- 6 folders.
- D.171 Published version.
- D.172 Small paperback notebook inscribed 'International Tables – instructions to printers'.
- Manuscript notes by Lonsdale, with inserted letter, 1951-1962.
- D.173 Small paperback notebook inscribed 'Vol. III' containing manuscript notes by Lonsdale *re* revisions of text etc, with inserted pages, 1960, 1961.
- D.174 Small untitled paperback notebook containing notes *re* the distribution of *International Tables*, ca 1959.
- D.175-D.186 'Errata I.U. Cryst.', contents of a box so inscribed.
- Correspondence etc *re errata* in the volumes of *International Tables*, 1951-1970.
- 12 folders.

International Tables for Crystal Structure Determination

- D.187, D.188 Reviews of *International Tables*: cuttings from various publications, 1952-1965.

2 folders.
- D.189-D.198 Miscellaneous papers.

Typescript and manuscript notes and drafts, with figures etc, connected with the publication of the *International Tables*, 1943-ca 1956.

10 folders.
- D.199 Printed and bound sample copy of Volume 1 of the *International Tables*, 1951.

On several pages are written manuscript notes on various topics, the headings include the following: 'Lecture course', '14 Bravais Lattices', 'Criticism of Volume 1 [of the *International Tables*] in reviews', and 'Symmetry Operations in the Cubic Space Groups'.
- D.200-D.203 Index cards: typescript glossaries of terms in English and German.

4 boxes.
- D.200, D.201 Glossary in English.

Arranged alphabetically (original order).

2 boxes.
- D.202, D.203 Glossary in German.

Arranged alphabetically (original order).

2 boxes.

International Tables for Crystal Structure Determination

D.204, D.205

Contents of a file inscribed 'NFMH [Norman F.M. Henry] book'.

Lonsdale and Norman Henry collaborated on a proposed textbook in two parts entitled 'A First Course in Crystallography' and 'A Second Course in Crystallography'.

Correspondence between Lonsdale and Henry, with skeletal typescript drafts of some chapters, 1952-1959.

2 folders.

SECTION E PUBLICATIONS, LECTURES AND BROADCASTS E.1-E.686

E.1-E.66 'EARLY PAPERS'

E.67-E.409 PUBLICATIONS

E.410-E.611 LECTURES

E.612-E.625 BROADCASTS

E.626-E.686 OFFPRINTS

Publications, lectures and broadcasts

E.1-E.66 **'EARLY PAPERS'** **1924-1957, n.d**

These papers were found together in box files labelled 'Early papers and lectures'.

The material consists largely of drafts of articles and lectures by Lonsdale. There is a chronological sequence of papers (E.1-E.30), a sequence of undated drafts arranged in alphabetical order (E.30-E.59) and a small amount of correspondence and miscellaneous manuscript notes.

E.1 'Lecture on Wireless', 16 February 1924.

2p manuscript notes; 13pp manuscript draft.

E.2 Lecture on 'X-ray study of crystal dynamics' at two Physical Society meetings, Imperial College, London, 16 January 1942 and Cavendish Laboratory, Cambridge, 21 January 1942.

Agenda for Physical Society meetings, 1942; 4pp manuscript lecture notes and 2pp manuscript lists of slides; 3pp typescript remarks on the published lecture by L.L. van Reijen, 1945.

E.3 Lecture on 'Extra reflections on X-ray photographs of crystals' at a meeting of the Mineralogical Society, London, 19 March 1942.

Notice of the meeting, 1942.

E.4 'Extra X-ray reflections by crystals', submitted to *Current Science* (no evidence of publication).

Letter to Lonsdale with 2pp typescript referee's report attached, 23 May 1942.

E.5 Lecture on 'X-rays and diamonds', Maths and Physical Society of the Royal College of Science, 11 November 1942.

3pp and 4pp manuscript notes; 15pp manuscript draft; letters to Lonsdale, 1942.

Publications, lectures and broadcasts

- E.6 'Some questions relating to X-ray scattering by crystals', submitted to *Nature* (no evidence of publication).

3pp manuscript draft, ca 1942.
- E.7 Lecture on 'New problems in X-ray research on crystals', Cambridge University Physics Society, 11 November 1943.

3pp and 8pp manuscript notes, letters to Lonsdale *re* arrangements, 1943.
- E.8 'J.B. Hannay and the artificial production of diamond' (no evidence of publication).

3pp manuscript draft and 2pp typescript. Latest bibliographical reference, 1943.
- E.9 Lecture on 'Diamonds - natural and artificial', Royal Institution, London, 30 March 1944.

6pp manuscript draft; manuscript notes; programme of Royal Institution lectures.
- E.10 Lecture on 'Architecture of solids from diamond to rubber', Association of Scientific Workers, 24 August 1944.

Manuscript notes; two letters to Lonsdale *re* arrangements, 1944.
- E.11 'X-rays and artificial diamonds', submitted to *London Calling*.

3pp manuscript draft + captions; correspondence *re* publication, 1944.
- E.12 Lecture on 'The organisation of service', July 1945.

7pp manuscript draft, annotated 'Science & Compulsion. Friends House July 6-8, 1945. The Organisation of Service (1st Draft)' on the reverse of the last page.

Publications, lectures and broadcasts

- E.13 Lecture on '25 years of X-ray crystallography', Chemical and Physical Society, University College, London, 30 October 1945.

1p, 5pp and 6pp manuscript notes; letters to Lonsdale *re* arrangements, 1945.
- E.14 Lecture on 'X-ray analysis in relation to chemical problems', Chemical Society, Leeds, 5 March 1946.

Manuscript notes and drafts.
- E.15 Book review of *The diffraction of X-rays and electrons by free molecules* by M.H. Pirene (Cambridge University Press, 1946).

2pp manuscript draft.
- E.16 'What is wrong with our Institutions?' (no evidence of publication).

7pp manuscript draft, *ca* 1946.
- E.17, E.18 'X-ray crystallography in Great Britain 1939-1946. I. Thermal and other perturbations of crystal structure' (no evidence of publication).
- E.17 12pp manuscript draft, with 4pp manuscript draft entitled 'Some recent developments in X-ray diffraction: Thermal effects and allied phenomena' attached thereto.
- E.18 5pp manuscript draft; 4pp and 6pp typescripts.
- E.19 'The structure of real crystals', *Science Progress* **35** (1947).

9pp manuscript draft.
- E.20 'The study of crystallography at University College' (no evidence of publication).

5pp typescript, 1947.

Publications, lectures and broadcasts

- E.21 'X-ray scattering by thermal vibrations in crystals', *Nature* **162** (1948).
1p typescript.
- E.22 Lecture on 'Neutron diffraction by crystals', Royal Institution, London, 18 March 1949.
Manuscript notes.
- E.23 Letter to *Research* (no evidence of publication).
2pp manuscript letter *re* the international exchange of scientists, with reply, July 1949.
- E.24 'Movements of atoms in crystals', *Advmt Sci. Br. Ass.* **6** (1949).
13pp typescript and manuscript draft; 11pp typescript.
- E.25 Lecture on 'The study of anisotropy in crystals', at a colloquium on 'Polarisation de la Matière', Paris, 4-9 April 1949.
14pp manuscript draft for publication.
- E.26 'The study of crystallography' (no evidence of publication).
3pp manuscript draft, *ca* 1949.
- E.27, E.28 Lectures to the Spanish Crystallographic Association, Barcelona, Spain, 5-6 July 1950.
- E.27 'Neutron diffraction', 8pp typescript.
- E.28 'Thermal movements of atoms in crystals', 10pp typescript.
- E.29 Lecture on 'The location of the hydrogen atoms in crystals', National Physical Laboratory, Delhi, India, 9 August 1954.
1p manuscript summary of lecture.

Publications, lectures and broadcasts

- E.30 'Problems of simple structures', *Bull. Inst. Phys. Lond.* (1957).
15pp manuscript draft.
This draft was based on a lecture to the X-ray Analysis Group of the Institute of Physics on 16 November 1956.
- E.31-E.59 Undated papers.
This sequence consists largely of notes and drafts relating to lectures by Lonsdale. It is arranged in alphabetical order of title.
- E.31 'Atomic movements in crystals', 4pp manuscript notes with related material attached.
- E.32 'Atoms on the move', 3pp manuscript notes.
- E.33 'Crystallography and the chemist', 8pp manuscript notes.
- E.34 'Crystallography: Physics or Chemistry', 2pp manuscript notes.
- E.35 'Divergent beam X-ray photography', 14pp manuscript draft, 4pp manuscript notes.
- E.36 'Elasticity of metals', 2pp manuscript draft.
- E.37 'Elementary theory of X-ray diffraction', 13pp duplicated typescript.
- E.38 'Facts and fancies about crystals', 13pp manuscript draft, 2pp manuscript notes.
- E.39 'Ice', 4pp and 5pp manuscript notes, with related notes *re* snowflakes.

Publications, lectures and broadcasts

- E.40 'Magnetic anisotropy of $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ and $\text{CuSO}_4 \cdot 5\text{D}_2\text{O}$ ', 2pp manuscript draft with related material.
- E.41 'Max von Laue', 2pp manuscript draft.
- E.42 'Movements of atoms in crystals', 2pp manuscript notes, 12pp typescript.
- E.43 'Nomenclature', 5pp and 6pp manuscript notes.
- E.44 'Recent advances in chemical crystallography', 2pp manuscript notes, 3pp typescript abstract of lecture.
- E.45 'Recent experimental work on structure & dynamics of crystals', 17pp manuscript draft.
- E.46 'Recent X-ray research on metals', various manuscript notes.
- E.47 'Scientists and the two types of diamond', 10pp manuscript draft.
- E.48 'Social, magical, religious significance of salt', 3pp manuscript notes.
- E.49 'Some recent developments in X-ray diffraction: Thermal effects and allied phenomena', various manuscript drafts.
- E.50 'Specialisation as a means to a wide cultural education', 2pp manuscript notes.
- E.51, E.52 'The real structure of crystals'.
- E.51 18pp manuscript draft.

Publications, lectures and broadcasts

- E.52 16pp annotated typescript, with manuscript list of slides.
- E.53 'Thermal vibrations in crystals', 5pp manuscript notes.
- E.54 'Unsolved problems in crystallography', various manuscript notes.
- E.55 'What more can we learn from crystals?' 3pp and 4pp manuscript notes.
- E.56, E.57 'X-ray crystal analysis and chemical problems'.
- E.56 17pp manuscript draft.
- E.57 14pp typescript.
- E.58 'X-ray photography of crystal vibrations', 2pp manuscript notes.
- E.59 'X-rays and the elastic constants of crystals', 3pp manuscript notes.
- E.60, E.61 Correspondence relating to papers by Lonsdale and editorial matters, 1941-1953.
2 folders.
- E.62-E.65 Miscellaneous manuscript notes and drafts relating to lectures by Lonsdale etc, n.d.
4 folders.
- E.66 Manuscript notes on lectures and on the literature etc, n.d.

Publications, lectures and broadcasts

E.67-E.409	PUBLICATIONS	1928-1974, n.d.
	E.67-E.394	Drafts
		E.67-E.301 Articles and books
		E.302-E.360 Book reviews
		E.361-E.385 Obituaries and biographical articles
		E.386-E.394 Letters to newspapers and magazines
	E.395-E.407	Correspondence
	E.408, E.409	Diagrams
E.67-E.394	Drafts	1928-1974
E.67-E.301	Articles and books	1928-1974
E.67, E.68	'Experimental study of X-ray scattering in relation to crystal dynamics', <i>Reports on Progress in Physics</i> 9 (1943).	
E.67	44pp manuscript draft; short letter from M. Born to Lonsdale returning the draft, 9 October 1944.	
E.68	46pp manuscript draft; 2pp manuscript list of symbols.	
E.69, E.70	Articles on 'X-rays', 'X-rays and crystal structure', 'Structure of solids', 'C.G. Barkla' and 'M. von Laue' for <i>Chambers Encyclopaedia</i> .	
E.69	Manuscript drafts of the articles.	
E.70	Correspondence with <i>Chambers Encyclopaedia</i> etc, 1946-1950.	

Publications, lectures and broadcasts

- E.71-E.77 *Crystals and X-rays* (G. Bell and Sons Ltd, London, 1949).
- E.71, E.72 'Material for Chap.s I, II & III of X-Ray Crystallography'. Contents of folder so inscribed.

Manuscript notes and drafts for lectures etc, 1946, n.d.

2 folders.
- E.73 Proofs of the book (annotated in places).
- E.74 Letters to Lonsdale, granting permission to reproduce figures and photographs, 1946-1947.
- E.75, E.76 Memorandum of agreement between Lonsdale and G. Bell and Sons Ltd, 24 April 1946; letters to Lonsdale from the publisher, 1948-1953.

2 folders.
- E.77 Correspondence and papers *re* corrections to the book, 1949-1950; book reviews, 1949.
- E.78-E.81 *X-ray Crystallographic Technology* by A. Guinier, English translation by T.L. Tippell, edited by Kathleen Lonsdale, (Hilger and Watts, 1952).
- E.78-E.80 Correspondence and papers *re* the editing of the book, 1946-1950.

Includes letters in French.

3 folders.
- E.81 Reprints and cuttings of book reviews.
- E.82, E.83 'The ionic state of LiH' with J.M. Bijvoet, *Philosophical Magazine* **44**, pp 204-207 (February 1953).
- E.82 3pp manuscript draft; 3pp typescript; 4pp annotated typescript draft; 6pp manuscript and typescript draft + figure.

Publications, lectures and broadcasts

- E.83 Correspondence with J.M. Bijvoet *re* the article, 1952; Manuscript notes etc, n.d.
- E.84 'The training of modern crystallographers', *Acta Crystallographica* **6**, p.874 (November 1953).
2p typescript draft.
- E.85 'Moral responsibility', *Scientific Worker* **9**, (May 1954).
6pp typescript entitled 'The moral responsibility of the scientist', with various manuscript notes attached.
- E.86 'Determination of absolute configuration by Laue photographs' with H.J. Grenville-Wells, *Nature* **173** (12 June 1954).
4pp typescript.
- E.87-E.89 'Sign determination in crystal structure analysis' with H.J. Grenville-Wells, *Acta Crystallographica* **7** (July 1954).
- E.87 Manuscript drafts.
- E.88 10pp annotated typescript; 9pp duplicated typescript.
- E.89 Correspondence relating to the article, 1954.
- E.90, E.91 'Neutron and atom patterns in crystals', *Science News* **37**, pp 25-42 (August 1955).
- E.90 22pp typescript; annotated proof.
- E.91 Correspondence *re* the article, 1955.

Publications, lectures and broadcasts

- E.92 'Present trends in the Department of Chemical Crystallography, UCL', *Journal of the Chemical and Physical Society*, University College London (Michaelmas Term 1955).
6pp typescript draft; invitation to write the article, 1955.
- E.93 'Temperature dependence of the diamagnetic anisotropy of benzil' with M. Leela, *Proceedings of the National Academy of Sciences (India)* **XXV** (1956).
10pp typescript, with related material.
- E.94 'Large increase of light sensitivity at low temperatures for certain types of X-ray film' with H.J. Grenville-Wells, *British Journal of Applied Physics* **7**, p.380 (October 1956).
2pp typescript.
- E.95 'Recent advances in crystal physics', ca 1956.
11pp manuscript draft; 12pp typescript.
- E.96 'Is 'super-refinement' legitimate in X-ray crystal analysis', *Nature* **179**, pp 856-859 (27 April 1957).
6pp manuscript draft, with related letter to Lonsdale by E.G. Cox, 25 February 1957.
- E.97-E.101 'Is Peace Possible ?' (Penguin Books, 1957).
- E.97, E.98 Letters of appreciation etc, 1957-1959.
2 folders.
- E.99 Letters to Lonsdale from the publishers and the Society of Friends' Peace Committee, 1957-1959.
The Society of Friends' Peace Committee received royalties from the book.
- E.100, E.101 Copies of book reviews etc, 1957-1958.
2 folders.

Publications, lectures and broadcasts

- E.102 'Disarmament', *New Scientist* (28 November 1957).
11pp manuscript draft; 10pp typescript; letter to Lonsdale *re* publication, 1957.
- E.103 'Crystallography: a borderline science', *The Centennial Review* 2 (Summer 1958).
21pp manuscript draft, with related letter by Lonsdale, 1957.
- E.104 'What shall this man do?'. Article for a magazine proposed by the Fellowship of Reconciliation.
4pp manuscript draft; invitation to Lonsdale to write the article, 1958.
- E.105 'International Tables for X-ray crystallography'. Contribution to a 'Dictionary of Physics'.
2pp typescript; brief correspondence with Pergamom Press Ltd, 1958.
- E.106 'Experimental studies of atomic vibrations in crystals and of their relationship to thermal expansion', *Zeitschrift für Kristallographie* 112 (1959).
28pp annotated typescript + tables + references.
- E.107 'A comparison of some crystals containing C-C and B-N bonds' with H.J. Milledge.
10pp annotated typescript. Latest bibliographical reference, 1959.
- E.108 'Analysis of thermal vibrations in crystals: a warning' with H.J. Milledge, *Acta Crystallographica* 14, pp 59-61 (January 1961).
7pp manuscript draft; 8pp annotated typescript; figure; correspondence *re* publication, 1960.
- E.109 'Diffraction measurements on thermal vibrations in crystals', *Journal of the Chemical and Physical Society*, University College London (1961).
29pp annotated typescript.

Publications, lectures and broadcasts

- E.110 Foreword to a proposed book by F. Creedy, 'The virtues needed for freedom'.
3pp manuscript draft, with related correspondence, 1961.
- E.111 'Thermal movements of atoms in solids', *Journal of Scientific and Industrial Research (India)* **21A**, pp 230-234 (1962).
15pp typescript.
- E.112 'Statistical ethics', *Transition (Uganda)* **2** (October 1962).
7pp manuscript draft; 9pp typescript; correspondence *re* the article, 1962.
- E.113-E.119 'X-ray diffraction and its impact on physics', 'Crystallography at the Royal Institution', 'Reminiscences' and other contributions to *Fifty years of X-ray diffraction* edited by P.P. Ewald (1962).
- E.113, E.114 Drafts of 'X-ray diffraction and its impact on physics'.
- E.113 50pp manuscript and typescript draft.
- E.114 35pp duplicated typescript.
- E.115 'Reminiscences', 11pp manuscript draft and 6pp duplicated typescript; 'History of X-ray crystallography at the Royal Institution', 7pp incomplete manuscript draft.
- E.116 Correspondence relating to the *Festschrift*, 1960-1963.
- E.117 Background material and manuscript notes, 1928, 1931, n.d.
Includes letter to Lonsdale from W.H. Bragg, 30 October 1928; typescript list of annual expenses by Lonsdale, [1931].
- E.118, E.119 Typescript drafts by other contributors to the *Festschrift*, 1960.
2 folders.

Publications, lectures and broadcasts

- E.120 'Modern applications of X-ray crystallography' for *Chambers Encyclopaedia*.
16pp typescript + figures; correspondence *re* the article, 1962.
- E.121 Contribution to an article in *Civilita delle Macchine*, 1963.
'Women's work outside their homes: Britain', 6pp typescript with related correspondence, 1963.
- E.122 'Teaching about God', *Young Wives News* (Sherborne Archdeaconry), no.4 (March 1964).
Copy of *Young Wives News* containing Lonsdale's article.
- E.123 'The study of disorder in solids', *M&B Laboratory Bulletin VI*, pp 34-41 (October 1964).
20pp typescript + captions; correspondence *re* the article etc, 1963-1965.
- E.124 'Natural irradiation in Ivory Coast diamonds'.
2pp manuscript draft. Latest bibliographical reference, 1965.
- E.125, E.126 'Methods of testing for independent vibrations of atoms in a molecule, illustrated by anthraquinone' with D. Walley and K. El Sayed, *Acta Crystallographica* **20**, pp 13-17 (January 1966).
- E.125 6pp typescript draft.
- E.126 Correspondence and papers relating to the article, 1965.
- E.127-E.144 'X-ray studies of a single crystal chemical reaction: photo-oxide of anthracene to (anthraquinone, anthrone)' with E. Nave and J.F. Stephens, *Phil. Trans. R. Soc. Lond. A* **261** pp 1-31 (October 1966).
- E.127 13pp manuscript draft.
C.J. Brown is listed as one of the authors in this draft although his name was not included in the final version.

Publications, lectures and broadcasts

- E.128 Manuscript and typescript drafts.
- E.129 38pp annotated typescript + tables + captions.
- E.130-E.133 Photographs, 1965-1966.
4 folders.
- E.134 Correspondence *re* publication etc, 1965-1967.
- E.135 'MS in preparation'. Contents of folder so inscribed.
Manuscript notes, drafts, tables, figures etc relating to the article, n.d.
- E.136-E.144 Research related material.
These papers were found with the drafts of the article.
- E.136-E.138 'Photo-oxide of anthracene'. Contents of folder so inscribed, divided into three for ease of reference.
- E.136 Correspondence, 1961, 1964-1965.
- E.137, E.138 Manuscript and typescript notes and drafts; experimental data and readings; etc. 1965-1966, n.d.
2 folders.
- E.139-E.142 'Dinitrohydroxyanthraquinone'. Contents of folder so inscribed, divided into four for ease of reference. 1963-1965, n.d.
Mostly computer data and manuscript notes.
- E.143 'Mass spectrum analysis of anthracene photo-oxide and anthraquinone'. Contents of folder so inscribed.
Manuscript notes by Lonsdale and other reseachers etc, n.d.

Publications, lectures and broadcasts

- E.144 'The crystal structure of fumaric acid' by C.J. Brown, photocopy of 7pp typescript + tables + figures, 1965.
- E.145 'Kariamanikkam Srinivasa Krishnan, 1898-1961' with H.J. Bhabha, *Biographical Memoirs of Fellows of the Royal Society* **13** (November 1967).
9pp manuscript and typescript draft.
- E.146, E.147 Foreword to *Molecular crystals: their transforms and diffuse scattering* by J.L. and M. Amoros (John Wiley & Sons, 1968).
- E.146 5pp manuscript draft; 5pp typescript.
- E.147 Correspondence re the foreword, 1967-1968.
- E.148 'How crystal studies can mean happier old age'. Article for the Overseas Press Services of the Central Office of Information (1968).
5pp manuscript draft; 6pp typescript; 6pp duplicated typescript; brief correspondence with the Central Office of Information, 1968.
- E.149-E.151 'Dedication' and 'The geometry of chemical reactions in single crystals' in *Physics of the solid state: commemoration volume to Professor S. Bhagavantam* (Academic Press, 1969).
- E.149 3pp incomplete manuscript draft dedication; 'The geometry of chemical reactions in single crystals', 12pp typescript + captions + table.
- E.150 Correspondence relating to the book, 1967-1969.
- E.151 Background material:
'Temperature dependence of the single-crystal reaction: anthracene photo-oxide to (anthraquinone/anthrone) + H O, etc.', 7pp typescript by Lonsdale and E.Nave, [1966]; 'Real crystals as a source of error', 18pp typescript + captions by H.J. Milledge [1968].

Publications, lectures and broadcasts

- E.152, E.153 Foreword to *Technological injury: the effect of technological advances on environment, life, and society* edited by J. Rose (Gordon & Breach Science, 1969).
- E.152 5pp manuscript draft; 5pp typescript draft.
- E.153 Correspondence relating to the foreword, 1968-1969.
- E.154 Short article for *PHP International* (Japan).
1p manuscript draft; 1p typescript; correspondence *re* the article, 1970.
- E.155 'Formation of Lonsdaleite from single-crystal graphite', *American Mineralogist* **56** (January-February 1971).
2pp manuscript draft etc.
- E.156 'Women scientists – why so few', *Laboratory Equipment Digest* (February 1971).
7pp manuscript draft; letters to Lonsdale *re* publication, 1970.
- E.157 Editorial for *International Journal of Environmental Studies* **1** (1971).
1p manuscript draft entitled 'Priorities for the Public Purse', with related correspondence, 1970.
- E.158 Article on 'Gibbs, Reginald Edward', in *Dictionary of Scientific Biography* (Charles Scribner's Sons).
3pp edited typescript draft, with accompanying letter, 5 April 1971.
- E.159 'Uric acid dihydrate in bird urine' with D.J. Sutor, *Science* **172** pp 958-959 (28 May 1971).
7pp manuscript draft, with related correspondence and photographs etc, 1971.

Publications, lectures and broadcasts

- E.172 3pp annotated typescript table of contents, with 2pp typescript note *re* nomenclature, references and symbols.
- E.173-E.182 'Thermal expansion correspondence & 1st draft'. Contents of box file so inscribed.
- E.173 'The nature and representation of thermal expansion in solids', 51pp manuscript draft.
- E.174 'Atomic and ionic radii', 1p manuscript draft.
- 'Thermal expansion and compressibility', 8pp manuscript draft.
- E.175 'Discussion of the thermal expansion of succinic and adipic acids in relation to their structures', 2pp manuscript draft.
- 'Expansion of 'liquid crystals'', 1p manuscript draft.
- E.176 'Elements of Group V B', 8pp and 17pp annotated typescript drafts.
- E.177 'Reversibility of thermal expansion with temperature', 7pp manuscript draft and 4pp typescript.
- E.178-E.180 'General MS'. Contents of folder so inscribed.
- Manuscript notes, drafts, calculations etc.
- 3 folders.
- E.181 Photocopies of untitled annotated typescript draft material.
- E.182 Miscellaneous manuscript notes, data, drawings etc.

Publications, lectures and broadcasts

- E.183-E.204 'Thermal expansion correspondence & 2nd drafts'. Contents of box file so inscribed.
- E.183 'Elements of Group VI B', 4pp and 22pp annotated photocopies of typescript drafts.
- E.184 'Elements of Group VII B', 7pp manuscript and typescript draft, 3pp incomplete manuscript draft.
- E.185, E.186 'Liquid crystals'.
- E.185 11pp manuscript draft.
- E.186 Annotated photocopy of 10pp typescript, paginated 39-48, with manuscript references and figures.
- E.187 'Long-chain compounds', 9pp manuscript draft.
- E.188 'Thermal expansion of triglycine sulphate', annotated photocopy of 7pp typescript draft, with photocopies of figures and related computer data.
- E.189-E.195 Short sequence of drafts.
This sequence consists of annotated photocopies of typescript drafts, with photocopies of related computer data.
- E.189 'Succinamide', 3pp draft paginated 1-3, with 8pp computer data.
- E.190 'Adipamide', 3pp draft paginated 4-6, with 8pp computer data.
- E.191 'Suberamide', 2pp draft paginated 7-8, with 8pp computer data.
- E.192 'Sebacamide', 3pp draft paginated 9-11, with 8pp computer data.

Publications, lectures and broadcasts

- E.193 'Glutaramide', 3pp draft paginated 12-14, with 8pp computer data.
- E.194 'Pimelamide', 2pp draft paginated 15-16, with 8pp computer data.
- E.195 'Azelamide', 3pp draft paginated 17-19, with 8pp computer data.
- E.196-E.200 Short sequence of drafts.
This material was found together.
- E.196 'Alkali metal azides', photocopy of 2pp annotated typescript.

'Alums', photocopy of 4pp annotated typescript.
- E.197 'Ammonium dihydrogen phosphate', annotated photocopy of 3pp typescript,
photocopy of 3pp annotated typescript.
- E.198 'Antimony', photocopy of 2pp annotated typescript.

'Copper – dimethylglyoxime', photocopy of 2pp annotated typescript.
- E.199 'Di-p-xylylene', annotated photocopy of 5pp draft, with photocopies of related
computer data.
- E.200 'Interpolation formulae', photocopy of 2pp annotated typescript.

'Oxalic acid dihydrate', photocopy of 4pp annotated typescript.

'3,5-Dibromo-p-aminobenzoic acid', photocopy of 3pp annotated typescript.
- E.201 Untitled 2pp manuscript and typescript draft, with attached 2pp photocopy of
typescript entitled 'Compressibility of iodine crystals'.

Publications, lectures and broadcasts

- E.202 Brief correspondence with M. Hospital, November-December 1970; manuscript notes and experimental data found therewith, n.d.
- E.203 'Thèses présentées à la Faculté des Sciences de l'Université de Bordeaux pour l'obtention du grade de Docteur ès Sciences Physiques' by M. Hospital, 1968.
- E.204 Miscellaneous manuscript notes and data.
- E.205-E.216 'Thermal expansion Mesomorphic phases'. Contents of box file so inscribed.
- E.205, E.206 'Mesomorphic phases'.
- E.205 42pp manuscript draft.
- E.206 Annotated photocopy of 15pp typescript + figures.
- E.207 'The diffraction effects from mesomorphic phases. By Kathleen Lonsdale, C.A. Taylor and R. Welberry', 34pp annotated typescript, with 1p manuscript references.
- E.208 Two letters to Lonsdale from C.A. Taylor, 1970.
- E.209-E.216 'Rough drawings for draft on mesomorphic phases. Also three other figures'. Contents of folder so inscribed.
- E.209 'Diagrams for section on Mesomorphic Phases' 6pp manuscript draft.
- E.210 58pp manuscript diagrams and captions by Lonsdale, annotated 'First draft'.
- E.211 Annotated photocopies of the diagrams at E.210.

Publications, lectures and broadcasts

- E.212 'Legends of figures', annotated photocopy of 13pp typescript.
- E.213 37pp manuscript diagrams by Lonsdale, annotated 'Final drawings'.
- E.214 Photocopies of diagrams, numbered 1-74 and 1-30.
- E.215 'Legends for collected diagrams for section on Mesomorphic Phases', 12pp manuscript draft and 19pp typescript.
- E.216 Three manuscript draft figures by Lonsdale.
- E.217-E.241 Various drafts.
These drafts were found loose in box files labelled 'Thermal expansion'.
- E.217 'Introduction', 12pp manuscript draft and 11pp annotated typescript.
- E.218 'The nature and representation of thermal expansion in solids', 13pp annotated typescript.
See also E.173.
- E.219 'Calculation of thermal-expansion coefficients from diffraction data', 38pp annotated typescript.
- E.220 'Inert-gas' crystals', 9pp manuscript notes.

'Noble-gas solids', photocopy of annotated 2pp typescript + tables.
- E.221-E.223 'Elements of Group O'.
- E.221 Photocopy of 12pp manuscript draft, with photocopy of 2pp manuscript additions.

Publications, lectures and broadcasts

- E.222 Annotated photocopy of 7pp typescript + tables and references, with annotated photocopy of 6pp typescript additions *re* Helium.
- E.223 22pp typescript.
- E.224-E.226 'Elements of Group IV B'.
- E.224 8pp and 14pp manuscript drafts.
- E.225 Photocopy of 19pp manuscript draft + references and figures.
- E.226 Photocopy of 27pp typescript + references.
- E.227 'Elements of Group VI B', 25pp typescript.
See also E.183.
- E.228 'Elements of Group VII B', 5pp typescript + tables and references, sent to Lonsdale with covering letter, 19 March 1971.
See also E.184
- E.229 'Liquid crystals', 9pp typescript + tables and references.
See also E.185, E.186.
- E.230, E.231 'Long-chain amides'.
- E.230 15pp manuscript draft.
- E.231 11pp typescript + tables and figures.

Publications, lectures and broadcasts

- E.232 3pp manuscript draft and 4pp typescript entitled 'Example'.

These drafts were found with the material at E.230 and E.231 and appear to relate to the same subject.
- E.233 'Long chain compounds', 9pp typescript + references.

See also E.187.
- E.234 '7. Thermal expansion of single crystal silicon at low temperatures', photocopy of 6pp typescript paginated 71-76 + table and figures.
- E.235, E.236 'Chapter 8 Thermal expansion measurements', 48pp typescript, paginated 236-283.

2 folders.
- E.237 'Thermal expansion in classical crystallography', photocopy of 2pp manuscript draft, with related manuscript drafts.
- E.238 Annotated 13pp typescript paginated 14-26 + tables and figure, beginning with the sub-heading 'Anisotropic thermal motion in a molecular crystal'; 1p manuscript comments by Lonsdale attached thereto.
- E.239 Various drafts and data *re* the thermal expansion of succinic and adipic acids.
- E.240 Photocopies of typescript drafts *re* chain packing and *re* stearic acid.
- E.241 Annotated photocopy of 3pp typescript paginated 20-22 *re* aliphatic diamides; related papers found therewith, including letter to M. Hospital, 10 August 1970.
- E.242-E.251 Correspondence relating to the book.

Publications, lectures and broadcasts

- E.242 Correspondence with M. Hospital *re* his thesis etc, 1968-1969; manuscript notes and offprints found therewith.
See also E.203.
- E.243-E.245 Correspondence with J.L. Amoros and M. Canut-Amoros, 1969-1971.
Includes photocopies of drafts for the book.
3 folders.
- E.246-E.251 General correspondence relating to thermal expansion, 1957, 1969-1970.
6 folders.
- E.252, E.253 Computer data, 1969-1970, n.d.
2 folders.
- E.254, E.255 Miscellaneous manuscript notes etc, 1969, n.d.
2 folders.
- E.256 Miscellaneous drawings and figures, n.d.
- E.257 Photographs.
5 items.
- E.258, E.259 Manuscript and typescript lists of various bibliographical references.
2 folders.
- E.260 Hardback notebook inscribed 'References for book on Thermal Expansion' on front cover. First three pages used, containing notes and data on various matters.

Publications, lectures and broadcasts

- E.261-E.265 Typescript and printed background material, 1931, 1966-1970, n.d.
5 folders.
- E.266-E.301 'Human Stones: A study of the composition, growth and prevention of urinary calculi with some reference also to gallstones' with D.J. Sutor (unpublished).
- E.266-E.276 Manuscript draft of the book.
- E.266 List of contents, 2pp.

'Introduction', 6pp.
- E.267 'Chapter I. General descriptions of stones', 22pp manuscript and typescript draft.
- E.268 'Chapter II. Brief historical resumé. Past and present distribution relative to variables of several kinds', 19pp.
- E.269 'Chapter III. X-ray diffraction methods of identification and examination of crystalline materials. Comparison with other techniques', 28pp with 1p typescript additions.
- E.270 2pp *re* the examination of human stones annotated 'IV' at the top.
- E.271 'Chapter V. Crystal and stone growth', 30pp.
- E.272 'Chapter VII. The dependence of stone-formation on external (non-medical) factors', 28pp manuscript and typescript draft.
- E.273 'Appendix I. Crystal structure nomenclature. Definitions', 18pp.
- E.274 'Appendix II. Symmetry and shape', 11pp.

Publications, lectures and broadcasts

- E.275 Untitled 2pp paginated 4 and 5.
- E.276 Figures.
- E.277-E.292 Typescript draft of the book.
- E.277 Title page; 5pp acknowledgements and list of contents; 1p preface.
- E.278 'Introduction', 5pp annotated typescript, 4pp revised typescript.
- E.279 'Chapter I General description of stones', 20pp annotated typescript, 1p revised typescript.
- E.280 'Chapter II Brief historical resumé. Past and present distribution relative to variables of several kinds', 13pp.
- E.281 'Chapter III X-ray diffraction methods of identification and examination of crystalline materials. Comparison with other techniques', 17pp annotated typescript, 5pp revised typescript.
- E.282 'Chapter IV Constituents and texture of stones. Composition of collections of stones related to different factors', 16pp.
- E.283 'Chapter V Crystal and stone growth', 15pp.
- E.284 'Chapter VI Stone formation in relation to the composition of urine and bile. Methods of treatment and prevention', 20pp annotated typescript.
- E.285 'Chapter VII The dependence of stone formation on external factors', 14pp annotated typescript, 4pp revised typescript paginated 10-13.
- E.286 'Chapter VIII Conclusions', 9pp annotated typescript and 6pp revised typescript.

Publications, lectures and broadcasts

- E.287 'Appendix I Crystal structure nomenclature. Definitions', 11pp.
- E.288 'Appendix II Symmetry and shape', 7pp.
- E.289 Tables, 15pp.
- E.290 Photocopies of figures and plates.
- E.291 Legends for figures, 10pp.
- E.292 Bibliography, 16pp.
- E.293 'Introduction', 5pp annotated typescript draft; 'Chapter I General description of stones', 20pp annotated typescript.
- E.294-E.297 Correspondence *re* attempts to publish the book, 1968-1974.
4 folders.
- E.298 Typescript tables etc relating to human stones, n.d.
- E.299 Correspondence and papers *re* an article on human stones by Lonsdale for *Scientific American*, 1968.

These papers were found with the drafts for the book. Lonsdale's article was published in *Scientific American* **219** pp 104-111 (December 1968).
- E.300, E.301 Typescript, photocopied and printed background material, 1937-1967, n.d.
2 folders.

Publications, lectures and broadcasts

- E.308 *Imperfections in nearly perfect crystals* edited by W. Shockley *et al* (John Wiley and Sons, New York, 1952).
2pp typescript.
- E.309 *Atomes, Spectres, Matiere* by Y. Cauchois (Albin Michel, Paris, 1952).
1p typescript.
- E.310 *Contributions of Science to Peace* by C.A. Coulson (Fellowship of Reconciliation, 1953).
2pp typescript, 9 April 1953.
- E.311 *X-ray crystallography* by R.W. James (Methuen, London, 5th edition 1953).
2pp typescript.
- E.312 *Data for X-ray Analysis* by W. Parrish, M.G. Ekstein and B.W. Irwin (Philips Technical Library, 1953) for *British Journal of Applied Physics*, November 1953.
1p annotated typescript; cutting of printed review.
- E.313 *Crystal structures. Volume III and second supplement* by R.W.G. Wyckoff (Interscience Publishers, New York, 1953).
1p typescript.
- E.314 *The determination of crystal structures* by H. Lipson and W. Cochran (G. Bell & Sons Ltd, London, 1953).
2pp manuscript draft; 1p typescript; 2pp typescript, 22 April 1954.
- E.315 *Organic crystals and molecules: theory of X-ray structure analysis with applications to organic chemistry* by J.M. Robertson (Cornell University Press, 1953) in *Nature* **173**, 22 May 1954.
4pp typescript, 22 April 1954.

Publications, lectures and broadcasts

- E.316 *Les constantes physiques des composés organiques cristallisés* by J. Timmermanns (Masson et Cie, Paris, 1953).

Two 4pp typescript drafts, 30 June 1954; letter to Lonsdale from J. Timmermanns re the review, 9 May 1956.
- E.317 *The microstructures of diamond surfaces* by S. Tolansky (N.A.G. Press, London, 1955) in *Science Progress*.

2pp typescript; proof.
- E.318 *Small-angle scattering of X-rays* by A. Guinier and G. Fournet (J. Wiley & Sons, New York, 1955) in *Transactions of the Faraday Society*.

2pp manuscript draft; 2pp typescript draft; proof; invitation to write the review, 1 February 1956.
- E.319 *The third dimension in Chemistry* by A.F. Wells (Clarendon Press, Oxford, 1955) in *Journal of the Royal Institute of Chemistry*.

2pp manuscript draft; 2pp typescript draft; brief correspondence, 1956.
- E.320 *An introduction to crystallography* by F.C. Phillips (Longmans, Green and Co. Ltd, London, 2nd edition 1956) in *Science Progress*.

2pp typescript; invitation to write review, 20 August 1956.
- E.321 *Encyclopedia of Physics. Volume 32. Structural research* edited by S. Flügge (Springer-Verlag, 1957) in *Transactions of the Faraday Society*.

4pp manuscript draft; 3pp typescript; proof; invitation to write review, 8 March 1957.
- E.322 *Encyclopedia of Physics. Volume 30. X-rays* edited by S. Flügge (Springer-Verlag, 1957).

2pp typescript; proof; etc.

Publications, lectures and broadcasts

- E.323 *Crystals structures. Section IV. Chapters XI-XII* by R.W.G. Wyckoff (Interscience Publishers Ltd, 1957).

2pp typescript; publicity leaflet.
- E.324 *Structure Reports for 1951*, vol. 15 edited by A.J.C. Wilson (International Union of Crystallography, 1957) in *Endeavour*.

1p manuscript draft; 1p typescript; correspondence *re* the review, 1958.
- E.325 *The Sanctity of Life and the Criminal Law* by G. Williams (Faber and Faber Ltd, 1958) in *New Scientist* and *The Friend*.

1p typescript annotated 'For *The Friend*'; 2pp typescript; correspondence with *New Scientist*, 1958.
- E.326 *Exploring the structure of matter* by J. Trillat, translated by F.W. Kent (George Allen and Unwin Ltd, 1959).

2pp manuscript draft.
- E.327 *Growth and perfection of crystals* edited by R.H. Doremus, B.W. Roberts and D. Turnbull (Chapman and Hall Ltd, London, 1958) in *Science Progress*.

3pp typescript with letter by Lonsdale, 7 April 1959.
- E.328 *Crystal Structures. Supplements III and IV* by R.W.G. Wyckoff (Interscience Publishers, 1958, 1959) in *Science Progress*.

1p typescript; proof.
- E.329 *Religion and the scientists* by N.F. Mott *et al* (SCM Press Ltd, 1959).

3pp typescript entitled 'The Hungry Sheep look up...'
- E.330 *Crystal growth. Discussions of the Faraday Society No.5* (Butterworths Scientific Publications, 1949, reprinted 1959) in *Chemical Age*, 13 February 1960.

2pp typescript; correspondence etc, 1960.

Publications, lectures and broadcasts

- E.331 *Crystals and the polarising microscope: a handbook for chemists and others* by N.H. Hartshorne and E. Stuart (Edward Arnold Ltd, London, 3rd edition 1960) in *Science Progress*.
- 2pp typescript; brief correspondence, 1960.
- E.332 *The nature of the chemical bond and the structure of molecules and crystals: an introduction to modern structural chemistry* by L. Pauling (Oxford University Press, 1960) in *Chemical Age*.
- 2pp typescript, September 1960.
- E.333 *Crystal structure analysis* by M.J. Buerger (John Wiley & Sons, New York, 1960).
- 1p typescript etc.
- E.334 *X-ray powder photography in inorganic chemistry* by R.W.M. D'Eye and E. Wait (Butterworths Scientific Publications, 1960) in *British Journal of Applied Physics*.
- Invitation to write review, 6 September 1960; 2pp typescript.
- E.335 Graphite and its crystal compounds by A.R. Ubbelohde and F.A. Lewis (Clarendon Press, Oxford, 1960) in *Science Progress*.
- 2pp typescript, September 1960; proof; etc.
- E.336 *X-ray analysis of organic structures* by S.C. Nyburg (Academic Press, London, 1961) in *Chemistry and Industry*, 8 July 1961.
- Invitation to write review etc, 1961; 3pp typescript, 11 May 1961.
- E.337 *Direct methods in crystallography* by M.M. Woolfson (Clarendon Press, Oxford, 1961).
- 1p manuscript draft.

Publications, lectures and broadcasts

- E.338 *Neutron diffraction* by G.E. Bacon (Clarendon Press, Oxford, 2nd edition 1962) in *Journal of Nuclear Energy*.

3pp typescript; proof; invitation to write review, 9 July 1962.
- E.339 'The new mineralogy'. Review of three books, *Guardian*, 29 June 1962.

3pp manuscript draft and 3pp typescript; newspaper cutting of the review; correspondence, 1962.
- E.340 *Diffuse X-ray reflections from crystals* by W.A. Wooster (Clarendon Press, Oxford, 1962) in *Nature* **196** p. 401, 3 November 1962.

Proof; correspondence, 1962.
- E.341 'Rocks, gems and luminescent crystals'. Review of three books, *Guardian*, 22 March 1963.

3pp typescript; newspaper cutting of the review.
- E.342 *Advances in X-ray analysis. Volume V* edited by W.M. Mueller (Sir Isaac Pitman and Sons Ltd, 1963) in *Journal of the Royal Institute of Chemistry*.

Invitation to write review, 6 June 1963; 3pp typescript, 23 July 1963.
- E.343 *Atomic structure and chemical bonding* by F. Steel (Methuen & Co. Ltd, London, 1963) in *Bulletin of the Institute of Physics and the Physics Society*, November 1963.

Invitation to write review, 17 September 1963; 1p typescript, 30 September 1963.
- E.344 *Crystal data: determinative tables*, J.D.H. Donnay, general editor and G. Donnay, assistant editor (American Crystallographic Association, 1963) in *Chemistry and Industry*.

2pp typescript annotated with message by J.D.H. Donnay, 21 June 1963; etc.

Publications, lectures and broadcasts

- E.345 *Structure reports for 1953*, vol. 17 edited by W.B. Pearson (International Union of Crystallography, 1963) in *British Journal of Applied Physics*.
- Invitation to write review, 21 October 1963; 3pp typescript, 9 December 1963; proof.
- E.346 'A contrast in books about crystals'. Review of two books, *Chemistry and Industry*, 18 January 1964.
- 9pp typescript etc, 1963.
- E.347 *Crystal chemistry of large-cation silicates* by N.V. Belov (Consultants Bureau, New York, 1963) in *Technical Book Review*, 1964.
- 3pp typescript etc.
- E.348 *An introduction to crystal chemistry* by R.C. Evans (Cambridge University Press, 2nd edition 1964) in *Chemistry and Industry*, 16 May 1964.
- Invitation to write review, 19 February 1964; 10pp typescript, 3 April 1964.
- E.349 *Theorie et technique de la radiocristallographie* by A. Guinier (Dunod, Paris, 1964) in *Nature*.
- Annotated proof.
- E.350 'Studies of the growth and twinning of crystals'. Review of three books, *Industrial Diamond Review*.
- 4pp typescript with related correspondence, 1964.
- E.351 *Practical optical crystallography* by N.H. Hartshorne and A. Stuart (Edward Arnold Ltd, 1964) in *Chemistry and Industry*.
- 1p manuscript draft and 1p typescript with related correspondence, 1964.
- E.352 *An introduction to modern chemistry* by M.J.S. Dewar (The Athlone Press, London, 1965) in *Bulletin of the Institute of Physics and the Physics Society*.
- 2pp manuscript draft; 2pp typescript with related letter, 23 March 1965.

Publications, lectures and broadcasts

- E.353 *Advanced methods of crystallography* edited by G.N. Ramachandran (Academic Press, 1964) for *Chemistry in Britain*.

1p and 2pp typescripts, with related correspondence, 1965.
- E.354 *The architecture of molecules* by L. Pauling and R. Hayward (W.H. Freeman and Company, 1964) in *Nature*.

3pp typescript and proof, with related correspondence, 1965.
- E.355 *Science, Man and morals* by W.H. Thorpe (Methuen, 1965).

4pp typescript.
- E.356 *The crystalline state. Volume 4. Crystal structures of minerals* by Sir Lawrence Bragg and G.F. Claringbull (G. Bell & Sons Ltd, London, 1965) in *Contemporary Physics* 7, February 1966.

3pp typescript, with related correspondence, 1965.
- E.357 *Crystals, diamonds and transistors* by L.W. Marrison (Penguin, 1966) for the *Guardian*.

3pp typescript, with related correspondence, March 1966.
- E.358 *Origins of the science of crystals* by J.G. Burke (Cambridge University Press, 1966) in *Chemistry and Industry*, 14 January 1967.

4pp typescript, with related letter, 2 November 1966.
- E.359 *The crystalline state. Volume 3. The determination of crystal structures* by H. Lipson and W. Cochran (G. Bell and Sons Ltd, London, 3rd edition 1966) in *Chemistry and Industry*.

2pp typescript, with related letter, 21 November 1966.
- E.360 Untitled reviews by Lonsdale, n.d.

Publications, lectures and broadcasts

- E.361-E.385 Obituaries and biographical articles
- A sequence of papers relating largely to obituaries by Lonsdale. Arranged by individual in alphabetical order. The material was found together in a box file.
- E.361-E.365 Astbury, William Thomas (1898-1961).
- E.361 Correspondence and papers *re* Astbury's contribution to *Fifty years of X-ray diffraction* edited by P.P. Ewald, May-June 1961.
- E.362 Correspondence *re* obituaries of Astbury, 1961, 1963.
- E.363 Manuscript draft, proof and cutting (from offprint) of a personal note on Astbury by Lonsdale, 1961.
- This note was published in *Nature*.
- E.364 4pp manuscript draft and 6pp typescript of an obituary of Astbury by Lonsdale; manuscript notes *re* Astbury. 1961.
- The obituary was published in *Chemistry and Industry*, 29 July 1961.
- E.365 Obituaries of Astbury; biographical and bibliographical notes *re* Astbury. 1961.
- E.366-E.376 Bragg, Sir William Henry (1862-1942) and Bragg, Sir (William) Lawrence (1890-1971).
- E.366-E.368 Correspondence and papers *re* a bibliography of W.H. Bragg prepared by Lonsdale, 1943.
- The bibliography was published in *Obituary Notices of Fellows of the Royal Society* 4, November 1943.
- 3 folders.
- E.369 Correspondence and papers *re* the preparation of an obituary of W.L. Bragg by Lonsdale for *The Times* etc, 1957, 1965-1966.

Publications, lectures and broadcasts

- E.370 'Jubilee of a Nobel Prize', 2pp manuscript draft *re* W.L. Bragg, [1965].
- E.371 'Royal Institution: Sir Lawrence Bragg, OBE, FRS', 1p proof of an article by Lonsdale for *Nature*, 1965.
- E.372 'William Lawrence Bragg: an appreciation', 3pp typescript, n.d.
- E.373 'William Lawrence Bragg', 9pp typescript, n.d.
- E.374-E.376 Biographical articles on W.H. Bragg and W.L. Bragg for *Encyclopaedia Britannica*, 1970.
- E.374 Correspondence with *Encyclopaedia Britannica*.
- E.375 Two 3pp manuscript drafts and a 5pp annotated typescript *re* W.H. Bragg.
- E.376 Two 4pp manuscript drafts and a 5pp typescript *re* W.L. Bragg.
- E.377 Hermann, Carl (1898-1961).
2pp manuscript draft and 2pp typescript obituaries of Hermann by Lonsdale, with related papers. 1961.
The obituary was published in *Nature* **192** pp 604-605, 18 November 1961.
- E.378 Hodgkin, Dorothy Mary Crowfoot (1910-1994).
2pp typescript article *re* Hodgkin, sent to Lonsdale with a covering letter, 30 December 1964; printed background material *re* Hodgkin, 1965, n.d.
The article was published in the *Encyclopaedia Britannica*.
- E.379 Shearer, George.
2pp typescript annotated 'Notes for *Nature* Obituary by Brigadier Hinds', n.d.

Publications, lectures and broadcasts

- E.392 Letter to the *Listener* re the refusal of scientists to work on atomic weapons.
2pp typescript, 23 August 1956.
- E.393 Letters re the atom bomb.
Two 2pp manuscript drafts, n.d.
- E.394 Letter re the education of girls in science.
2pp manuscript draft, n.d.
- E.395-E.407 Correspondence 1946-1971**
- E.395-E.403 'Correspondence. Papers for publication'. Contents of box file so inscribed.
A chronological sequence of papers relating to various matters, including invitations for Lonsdale to write articles and books.
- E.395 1953-1956.
- E.396 1961-1962.
Includes 11pp typescript 'Computing as a tool in Science and Industry', annotated at top of first page 'Lecture delivered at National Research Centre, Cairo on April 5, 1961 by Dr. H.J. Milledge'.
- E.397 1963.
Includes 3pp typescript letter entitled 'Serendipity' sent to the editor of *Science*, 2 October 1963.
- E.398 1964-1966.
- E.399 1967-1968.
- E.400 1969.

Publications, lectures and broadcasts

- | E.410-E.491 | Drafts | 1945-1970, n.d. |
|--------------|--|-----------------|
| E.410, E.411 | 'A woman physicist looks back', Electrical Association for Women 21st anniversary celebrations, London, 12 October 1945. | |
| E.410 | 6pp and 8pp manuscript drafts; manuscript notes. | |
| E.411 | Papers relating to the Electrical Association for Women celebrations, 1945. | |
| E.412 | 'The Carbon atom in Science and Industry', Bedford College, 24 October 1945.

11pp manuscript draft; manuscript notes. | |
| E.413, E.414 | 'The Carbon atom in the service of Man', Annual General Meeting of the Association of Women Science Teachers, London, 4 January 1946. | |
| E.413 | 14pp manuscript draft; manuscript notes. | |
| E.414 | Correspondence and papers relating to the Meeting, 1945-1946. | |
| E.415 | 'L' analyse des cristaux au moyen des rayons X et problèmes chimiques', Palais de la Découverte, Paris, France, 9 May 1946.

19pp annotated typescript; correspondence <i>re</i> publication of the lecture, 1948.

The typescript draft is in French. | |
| E.416 | 'La structure des cristaux réels' [Paris, 1946].

21pp annotated typescript, with manuscript list of slides.

The typescript draft is in French. | |
| E.417-E.421 | 'The History of the Royal Institution', Royal Institution, London, 28 May 1946. | |

Publications, lectures and broadcasts

- E.417 14pp manuscript draft, with manuscript inserts.
- E.418 16pp manuscript draft.
- E.419 30pp annotated typescript draft.
- E.420 Manuscript notes.
- E.421 Poster; letter to Lonsdale *re* her lecture, 1948.
- E.422 'Structure of real crystals', Glasgow University Alchemists' Club, 22 October 1946.

The Alchemist, January 1947.

This issue of the Club's newsletter includes a report on Lonsdale's lecture.
- E.423, E.424 'What chemistry owes to X-rays'. Two lectures, Royal Institution, London, 5 and 12 December 1946.
- E.423 12pp manuscript draft of the first lecture; programme of Royal Institution lectures, 1946.
- E.424 12pp and 13pp manuscript drafts of the second lecture with 2pp manuscript notes.
- E.425 'Crystallography in Modern Science: Physics', Royal Institution, London, 31 October 1950.

Letters to Lonsdale *re* the lecture, 1950; manuscript notes.
- E.426 'Swarthmore Lecture', 1953.

17pp typescript, with 1p manuscript distribution list attached.

Publications, lectures and broadcasts

- E.427 'Recent research in crystallography', Joint Meeting of the Edinburgh Sections of the Royal Institute of Chemistry, the Society of Chemical Industry and the Chemical Society, Edinburgh, 9 December 1954.
4pp typescript report on Lonsdale's lecture, 27 December 1954.
- E.428, E.429 'Education for international understanding and population problems', University of London Institute of Education, 2 June 1955.
- E.428 Correspondence *re* arrangements, 1955; manuscript notes by Lonsdale, n.d.
- E.429 Background material, 1954-1955.
- E.430 'Co-existence'. Address to the Executive Committee, Women's International League for Peace and Freedom, Hamburg, July 1955.
Lonsdale was President of the League's British Section.
5pp duplicated typescript.
- E.431 'Problems of simple structures', Institute of Physics X-Ray Analysis Group, 16 November 1956.
13pp annotated typescript; letter *re* publication, 21 November 1956.
This talk was published in *Bulletin of the Institute of Physics* 8 July 1957
- E.432 'Restless atoms', Bryce Lecture, Somerville College, Oxford, 9 May 1957.
16pp annotated typescript.
- E.433 'The responsibility of scientists and citizens'. Address at 'Het Oude Loo', 24 May 1957.
8pp duplicated typescript, with related letters to Lonsdale, 1957.
- E.434-E.436 'The social place of scientists', Symposium on 'Science and Society', University of London, 19 March 1958.

Publications, lectures and broadcasts

- E.434 1p and 2pp manuscript draft synopses of lecture; 1p typescript synopsis.
- E.435 8pp manuscript draft and 11pp typescript.
- E.436 Correspondence and papers relating to the symposium, including 28pp duplicated typescript transcript of proceedings 1958.
- E.437-E.439 'Recollections and serendipities', Royal Holloway College Chemical Society, Surrey, 15 October 1958.

This material was found together in a folder inscribed 'Recollections and serendipities'.
- E.437 Correspondence *re* arrangements, 1958.
- E.438 7pp manuscript draft entitled 'Scientific Serendipities Pres. Address to Chem. Phys. Soc. 28.2.1950'; 4pp manuscript notes entitled 'Scientific Uncertainties and Serendipities', n.d.
- E.439 Printed background material, 1945-1951.
- E.440 Lecture at St Helens Technical College, 19 March 1959.

2pp typescript abstract of lecture, with related letter, 25 March 1959.
- E.441 'Science and World Affairs'. Edith M. Ward Memorial Lecture, 1959.

19pp manuscript draft.
- E.442 'Science and ethics', Hatfield Technical College, 27 May 1961.

31pp typescript.

Publications, lectures and broadcasts

- E.443 'The Religion of a scientist', United Free Church meeting, Norwich, 3 September 1961.
15pp typescript.
- E.444-E.446 'Restless atoms in solids'. Friday Evening Discourse, Royal Institution, London, 8 December 1961.
- E.444 2pp manuscript draft; 11pp typescript.
- E.445 Manuscript notes.
- E.446 Correspondence etc relating to the lecture, 1961.
- E.447, E.448 'Training for the Twenty-first Century'. Raymond Priestley Lecture, University of Birmingham Institute of Education, 18 October 1962.
- E.447 24pp annotated typescript.
- E.448 19pp typescript; letter to Lonsdale *re* possible publication of the lecture, 24 October 1962.
- E.448A 'The Education of a Scientist', Frankland Oration, delivered to the Lancastrian Frankland Society, Town Hall, Lancaster, 19 October 1962.
20pp typescript.
- E.449-E.452 Toast to the Guests, Royal Society Anniversary Dinner, London, 30 November 1962.
- E.449 7pp and 10pp manuscript drafts; manuscript draft pages.
- E.450 Correspondence *re* arrangements, 1962.

Publications, lectures and broadcasts

- E.451, E.452 Typescript biographical notes *re* guests invited to the Dinner, 1962.
2 folders.
- E.453 'The Scientific Challenge', 1962.
3pp typescript summary of lecture, 4 December 1962; 2pp manuscript draft
summary, n.d.
- E.454 'Solid-state disorder and reactions', 14 February 1964.
1p typescript summary of lecture, with related letter, 19 February 1964.
- E.455, E.456 'Nonconformity in Nature', Bournemouth Science Society, Sussex, 3 October
1964.
Lonsdale gave this lecture on her installation as President of the
Bournemouth Science Society.
- E.455 16pp annotated typescript.
- E.456 24pp typescript.
- E.457, E.458 'Crystallography as a research tool in chemistry'. Society of Chemical
Industry Jubilee Memorial Lecture, given at Birmingham, 21 October 1965,
London, 1 November 1965 and Liverpool, 21 April 1966.
Correspondence *re* arrangements, 1964-1966.
2 folders.
- E.459-E.462 'Crystals'. 1st Kapp Memorial Lecture, University College London, 24
February 1967.
- E.459 8pp manuscript draft; manuscript notes.
- E.460 17pp manuscript and typescript draft.

Publications, lectures and broadcasts

- E.461 17pp annotated typescript.
- E.462 Brief correspondence *re* possible publication of the lecture, 1967.
- E.463, E.464 'Science in the service of Mankind'. Opening Address of the International Science Fortnight, 27 July 1967.
- E.463 9pp manuscript draft.
- E.464 Two 8pp typescripts.
- E.465, E.466 'Science and international understanding', Heriot-Watt University, Edinburgh, 31 October 1967.
- E.465 18pp annotated typescript; letters to Lonsdale *re* arrangements, 1967.
- E.466 Brief correspondence and newspaper cuttings *re* the 'brain drain', October-November 1967.

The issue of the 'brain drain' was brought up in Lonsdale's address as Heriot-Watt University.
- E.467, E.468 'Human Crystals', National Institute of Sciences of India, New Delhi, India, 8 January 1969.
- E.467 15pp manuscript draft; 4pp manuscript notes.
- E.468 17pp typescript.
- E.469, E.470 K.S. Krishnan Memorial Lecture, National Physical Laboratory, New Delhi, India, 10 January 1969.
- E.469 19pp manuscript draft; manuscript notes.

Publications, lectures and broadcasts

- E.470 13pp incomplete typescript.
- E.471 Correspondence relating to Lonsdale's lectures in India, 1968-1969.
- E.472, E.473 'Science, Religion and the Student'. Address to a gathering of Elders, Yearly Meeting, London, 2 June 1969.
- E.472 14pp manuscript draft; 8pp manuscript draft; 2pp untitled manuscript draft; two letters to Lonsdale relating to the Yearly Meeting, June 1969.

This lecture was published by the Friends Home Service Committee in 1970.
- E.473 'What religion and science mean to me', 6pp manuscript draft and 6pp typescript so titled; letter to Lonsdale *re* publication, 1 July 1969.

This manuscript draft was originally titled 'Science, Religion and the Student' but this was crossed out and replaced with 'What Religion and Science mean to me'.
- E.474-E.484 'Women in Science', Friday Evening Discourse, Royal Institution, London, 23 January 1970.

This lecture was published in full in the *Proceedings of the Royal Institution of Great Britain*. Summaries of the lecture were published in *The Woman Engineer* **10** (Summer 1970) and *Physics Bulletin* **21** (March 1970).

Lonsdale also published an article on 'Women in science: reminiscences and reflections' in 1970.
- E.474 Correspondence and papers relating to the lecture, 1968-1969.
- E.475 21pp manuscript draft of the lecture, with 2pp manuscript addition; 4pp manuscript draft.
- E.476 2pp manuscript draft summary of the lecture.
- E.477-E.480 'Women in science: some reminiscences and reflections', *Impact of Science on Society*, **XX** (1970).

Publications, lectures and broadcasts

- E.477 Correspondence *re* the publication of the article, 1969; 1p manuscript draft biographical note on Lonsdale, with 1p typescript version.
- E.478 24pp manuscript draft.
- E.479 25pp typescript.
- E.480 Manuscript draft tables and graphs; typescript tables.
- E.481 Various manuscript and typescript notes.

Includes 11pp manuscript notes entitled 'Random Thoughts Woman Scientist Sheffield (November 1960)'.
- E.482-E.484 Printed, photocopied and typescript background material, 1960-1969.

3 folders.
- E.485 'Ageing of Matter and Man', Royal Scottish Museum, Edinburgh, 5 February 1970.

1p manuscript synopsis of lecture; correspondence and papers relating to the lecture, 1969-1970.
- E.486-E.491 Undated drafts.
- E.486 'The Christian pacifist argument', 2pp typescript account of a speech by Lonsdale.
- E.487 'Crystals from the mine, the sky, the laboratory & man', 6pp manuscript draft; 8pp typescript synopses of lectures found therewith.

The first lecture synopsis is on Ohio State University notepaper. This suggests that these lectures could have been given during Lonsdale's visit to the United States in 1969 (see F.137-F.139).

Publications, lectures and broadcasts

- E.488 'One woman thinks aloud', 2pp manuscript draft.
- 'Random thoughts of a busy woman', 4pp manuscript draft.
- 'Recent Investigations on the Absorption of X-Rays in Crystals in the Case of Interference', 4pp typescript draft.
- E.489 'The religion of a scientist', 10pp manuscript draft.
- E.490 'Studies of th [title incomplete]', 18pp typescript *re* the structure of crystals.
- E.491 Various pages from manuscript drafts.
- E.492-E.596 Notes 1933-1970, n.d.**
- E.492-E.568 Contents of two box files entitled 'MS notes for lectures and speeches' and 'Lecture Notes'.
- E.492-E.500 Manuscript lecture notes found together, 1933-1937, n.d.
- It is not clear whether these are notes relating to lectures given by Lonsdale or attended by her.
- E.492, E.493 31 October 1933-20 March 1934.
- 2 folders.
- E.494 22 September-15 December 1936.
- E.495 27 April-28 September 1937.
- E.496-E.500 n.d.
- 5 folders.

Publications, lectures and broadcasts

- E.501 2pp and 4pp manuscript speech notes and drafts relating science and the education of women, 16 and 17 November 1945.
- The speech appears to have been given at Imperial College to mark the centenary of the establishment of the Royal College of Chemistry.
- E.502 5pp manuscript notes inscribed 'Diamonds. County High School, Ilford. 10.1.1946'.
- E.503 Lecture on 'Art and Architecture in Science', 18 January 1949.
- 4pp manuscript notes, with 2pp manuscript list of slides.
- E.504 'Lecture to Society for Industrial Artists, Ashridge, Berkhamsted, 14.5.1949'. Contents of folder so inscribed.
- Manuscript notes entitled 'crystallography: Ancient and Modern'.
- E.505 1p manuscript notes entitled 'Reigate. Nov. 1, 1951'.
- E.506 10pp manuscript notes, written on index cards, inscribed 'Friend World Conference - 1952'.
- E.507 5pp manuscript notes entitled 'Ashridge. May 21, 1956', with 1p manuscript notes entitled 'Art and Crystallography. Ashridge 1956'.
- E.508 Softback notebook containing various sets of notes, 1958, n.d.
- The front includes speech notes entitled 'Recollections & serendipities Glasgow & Dundee. March 1958', calculations, manuscript notes entitled 'Thermal movements'. The back includes speech notes *re* the Royal Society.
- E.509 Softback notebook inscribed 'York 1958. Unilateral disarmament International Law Responsibility' on front cover. 1958-1967, n.d.
- The front includes speech notes and notes on the literature entitled 'Atoms-for-Peace', 'York Dec 19, 1958', 'Cambridge 24.2.1960 University Church. Unilateral Disarmt & Intern. Law', 'Birmingham Jan 1967. Outline of Lecture on Scientific Responsibility', and 'A Scientists looks at Politics'. /...

Publications, lectures and broadcasts

- /... The back contains speech notes entitled 'Unilateral Disarmt & Intern. Law 24.2.60'. There are 18pp intercalated speech notes entitled 'Political Responsibility of the Scientist'.
- E.510 4pp manuscript notes entitled 'Scientists Religion (Abbotsholme S. Ireland C of I-M. 8.5.1960)'.
- E.511 Softback spiral bound notebook containing various sets of notes. 1962, n.d.

The front includes speech notes entitled 'Gen. Assembly' and 'Science and the Home Exhibition'. The back includes notes relating to meetings entitled 'Area Committees & Branch formation Thursday, Aug. 30, 1962' and 'Recorders Mtg 1.9.1962', and speech notes entitled 'Peace: an Academic Study'.
- E.512 Softback spiral bound notebook, 1962, 1967, n.d.

The notebook contains entries on a variety of subjects. The front includes speech notes entitled 'Popularization science: A. Sc. W. 3.1.62 Cuttack, Orissa (Ind. Sci. Congress)'. The back includes speech notes entitled 'Crystallography and other sciences' and 'Recollections & Serendipities. Jan 1962' as well as speech notes for a British Association meeting. There is an intercalated newspaper cutting, 1967.
- E.513 Softbound notebook inscribed 'Science, Ethics, Religion' on the front cover and 'Scientific Challenge' on the back. 1962.

The front contains notes on literature *re* science and religion. The back includes speech notes entitled 'Scientific Challenge Slough, 1962'.
- E.514 Manuscript speech notes found together. 1962, n.d.

Includes notes entitled, '40 yrs Crystallographic Research. 1962' and '40 yrs Scientific Research'.
- E.515-E.519 Manuscript speech notes written on index cards, 1962-1963, n.d.

This material was found together. Some of it appears to relate to lectures given by Lonsdale during her visit to the United States in 1962.

Publications, lectures and broadcasts

- E.515 1p entitled 'Crystallography & other Sciences USA. 1962'.
- 5pp entitled 'Order-disorder in the Solid State. USA/Canada 1962'.
- 11pp entitled 'Order-disorder USA. 1962'.
- E.516 11pp entitled 'II Vibration disorder', n.d.
- 10pp entitled 'III Imperfections', n.d.
- E.517 18pp entitled 'IV Types of solid-state reaction', n.d.
- E.518 17pp entitled 'V Types of randomness', n.d.
- 8pp entitled 'VI Magnetic order-disorder', n.d.
- E.519 2pp entitled 'Disorder & Reactions in the Solid State King's College
Chemical Society. 18.1.1963'.
- 7pp entitled 'Lecture I on order-disorder (PG) 1963'.
- E.520 16pp manuscript notes entitled 'Sydney 28.8.1965'.
- These notes may have been used in an earlier lecture since there is an
earlier title 'Cardiff' which has been crossed-out.
- E.521, E.522 Manuscript lecture notes written on index cards, 1965-1967.
- This material was found together and appears to relate to lectures given at
University College London.
- 2 folders.

Publications, lectures and broadcasts

- E.523 Small softback notebook, 1967.
- The front includes speech notes *re* science and religion headed 'Harrogate 1967 Arts Festival'. The back contains speech notes entitled 'Christianity and Science ('67)'.
- E.524 Softback spiral bound notebook, 1967, n.d.
- The notebook includes notes on literature *re* ageing. There are 5pp manuscript notes entitled 'Ageing of matter and man' intercalated at the back.
- E.525 Softback spiral bound notebook inscribed 'M.Sc. notes' on front cover and. 1967-1968.
- The inside front cover is inscribed 'Lecture notes 1967-8'. The front includes notes *re* disorder in crystals for lectures at University College London and invited lectures. The back contains notes on the literature.
- E.526 4pp manuscript notes entitled 'Leadership luncheon. April 30, 1968'.
- E.527 Softback spiral bound notebook inscribed 'Some B.A. Speeches. Zonta Responsibility' on front cover. 1968-1969.
- The front includes speech notes *re* 'Opening of Science Fair, Dundee' and others entitled 'Responsibility' and 'Science, Religion & the Student'. The back contains miscellaneous notes.
- E.528 Manuscript notes, torn from a spiral bound notebook, August 1968.
- Includes speech notes entitled 'Tuesday Aug. 20 1968. Science and the Home', 'Wednesday, Aug. 21. Civic Luncheon',
- E.529 Manuscript notes, written on the back of a dinner invitation, entitled 'Christianity and modern science 3.12.68'.
- E.530 Manuscript notes entitled 'Science and the Religious Life (1968)'.
- E.531 10pp manuscript notes entitled 'United Service. De la Warr 22.1.69'.

Publications, lectures and broadcasts

- E.532 Softback notebook. 1969, n.d.
- The front includes some notes although a number of pages have been cut out. The back contains speech notes entitled 'Lucy Cavendish College, Cambridge. 28.1.1969' and 'Theory & practice in science & religion. (Conference: Liverpool Inst. Educ.)'.
- E.533 3pp manuscript notes entitled 'World Day of Prayer 6.3.1970'.
- E.534 Speech on 'Theory and practice in science and religion', Society of Friends Bristol & Somerset General Meeting, Sidcot, 17 October 1970.
- 9pp manuscript notes; programme.
- E.535 1p notes, written on the reverse of an invitation card, entitled 'Tiverton Nov 19, 1970'.
- E.536-E.559 Undated lecture and speech notes.
- E.536 Hardback notebook.
- The front includes lists of slides and lecture notes. The back contains miscellaneous notes.
- E.537 Softback notebook inscribed 'Neutron Diffraction' on front and back covers.
- Contains manuscript notes at front and back.
- E.538 Softback notebook inscribed 'Responsibility' on front cover.
- Includes 3pp manuscript notes entitled 'Responsibility of Scientist for biological future' intercalated at the back.
- E.539 Softback notebook.
- Contains lecture notes entitled 'Summary of exptl research by X-ray diffraction on thermal vibrations being carried out at University College, London' at back, with list of slides at front.

Publications, lectures and broadcasts

- E.540 Small notepad, containing 4pp speech notes entitled 'Luton College of Technology Random Thoughts'.
- E.541 Manuscript notes found tied together.

Includes speech notes entitled 'Reminiscences of a scientist', 'Honest Doubts', 'Methonium Compounds', 'Crystallography: a border-line science', 'Art and Crystallography'.
- E.542 Manuscript notes, found tied together, entitled 'Course Lectures'.
- E.543 Manuscript notes found tied together.

Includes notes entitled 'Lecture V', and 'Lecture VI'.
- E.544 Manuscript notes, found tied together, entitled 'Course I. Nomenclature & Symmetry'.
- E.545 25pp manuscript notes entitled 'Neutron Diffraction by Crystals'.
- E.546 6pp manuscript notes entitled 'Turning points in my life'.
- E.547 4pp manuscript notes entitled 'Science and the Future'.
- E.548 4pp manuscript notes entitled 'Art and Architecture'; various manuscript notes found therewith.
- E.549 7pp manuscript notes entitled 'Diamonds'.
- E.550 9pp manuscript notes entitled 'Neutron Diffraction by Crystals'.
- E.551 4pp manuscript notes entitled 'Thermal Vibns in Crystals'.

Publications, lectures and broadcasts

- E.552 8pp manuscript notes entitled 'Patterns'.
- E.553-E.559 Miscellaneous manuscript lecture and speech notes.
7 folders.
- E.560 Small hardback notebook, 1942-1946, n.d.

The front includes lists of references and notes on the use of laboratory equipment. The back contains experimental notes.
- E.561, E.562 Manuscript notes by Lonsdale, 1967, 1968, n.d.

This material was found together. It includes notes of facts and ideas which Lonsdale may have intended to use in lectures and speeches.

2 folders.
- E.563 Manuscript notes found together in a small ring bound folder, n.d.

Includes list of various addresses in Africa and notes on research by other scientists.

The notes may relate to Lonsdale's visit to South Africa in 1962 (see F.68-F.83).
- E.564 Miscellaneous manuscript notes and data, n.d.
- E.565-E.568 'Thermal Expansion of Molecular Crystals. References and Data'. Sequence of index cards so entitled, n.d.

The index cards contain bibliographical references and notes. They are arranged in alphabetical order of author.

The sequence may have been created during the drafting of an unpublished book 'The thermal expansion of solids' by Lonsdale, J.L. Amoros and M. Canut-Amoros (see E.171-E.265).

4 folders.

Publications, lectures and broadcasts

- E.569-E.596 'K.L. Misc. salvaged by T.J.L.'. Contents of box file so inscribed.
- E.569, E.570 'Ice'. Contents of envelope so inscribed, 1948, 1956, n.d.
Mostly undated manuscript notes for lectures.
2 folders.
- E.571 4pp manuscript notes entitled 'USAEC 15.2.1955 The Effects of High Yield Nuclear Explosions'; 3pp manuscript notes found therewith.
- E.572 8pp manuscript notes entitled 'Some Random Thoughts of Woman Sci. Sheffield Nov 60'.
- E.573 Softback notebook inscribed 'X-ray Crystallography Dept.' on front cover. 1962, 1965, 1966, n.d.
The front contains lecture notes headed 'Special III (5 weeks)'. There are also lecture notes at the back of the notebook and on intercalated index cards.
- E.574 1p manuscript notes entitled 'Diamonds, Mothballs and other solids. Hull, 1963'; 1p manuscript notes entitled 'Lecture II Hull 18.7.1963'.
- E.575, E.576 Manuscript lecture notes found together in an envelope. 1963, 1964, n.d.
- E.575 5pp notes entitled 'Marshall Woods Lecture 23.10.63'; 2pp lists of 'Slides for Appleton Lecture 25.10.63'; 1p notes entitled 'Slides Glasgow Feb. 14, 1964'.
- E.576 Various notes, n.d.
- E.577 16pp manuscript notes and 4pp list of slides entitled 'Bragg Lecture', [1965].
Lonsdale give this lecture on a number of occasions during her World Tour in 1965 (see F.93-F.125).

Publications, lectures and broadcasts

- E.578 Softback notebook, [1965], n.d.
- The address 'Windsor Hotel Spring Street Melbourne' is inscribed on the inside front cover indicating that Lonsdale used this notebook during her visit to Australia in 1965.
- The front of the notebook includes lecture notes entitled 'Sydney. Education for the 21st C (not in)'. The back contains notes entitled 'Solid-State Reaction' and 'Borderline science'.
- E.579 Small softback spiral bound notebook inscribed 'Slides for lectures' on front cover. 1966-1970.
- The front includes lists of slides and lecture notes entitled 'QMC 21.1.1966 Crystallography & Chemistry', 'Disorder Sheffield March 1', 'Bladderstones RSM Feb. 24', 'Molecular interactions', 'Colchester April 4, 1966 Bath March 8, 1966', 'Liverpool, April 21, 1966 Crystallography as a tool in Chemical Research', 'Royal Society April 28th', 'Urinary Calculi & Ca phosphates', 'Women in Science & Technology. VI form Conference. Bridgwater 16.10.70' and 'Human Stones'.
- The back includes notes on non-scientific subjects.
- E.580 Small softback spiral bound notebook. 1967, 1969.
- The notebook includes lists of slides and lecture notes entitled 'Kapp Memorial Lecture', 'Oxford. April 1967', 'Disorder Dundee 28.6.67', 'New Delhi 8.1.1969 Human Crystals', 'New Delhi 10.1.1969', 'Cal. Tech. 5.3.1969', 'Douglas Aircraft Co. Lecture, 1969' and 'Battelle 24.9.1969 Aging/Stones'.
- E.581 2pp manuscript notes entitled 'Feb. 13, 1967. Colloquium. Early X-ray crystallography'; 2pp manuscript notes entitled 'Crystals, Folkestone Nat. Hist. Soc. October 5, 1967'.
- E.582 Manuscript lecture notes found together *re* human stones, 1967, 1970, n.d.
- Includes 10pp manuscript notes entitled 'Human Stones. New York Dec. 27, 1967'.
- E.583 1p manuscript notes entitled 'Epitaxy Colloquium at NPL 7.1.1969 New Delhi'.

Publications, lectures and broadcasts

- E.584 4pp manuscript notes entitled 'Reminiscences Kingston, Jamaica. Nov. 28 69'.
- E.585-E.596 Undated lecture and speech notes.
- E.585 Softback notebook.
The front contains lecture notes entitled 'C-C and B-N', 'Thermal Movements in Solids' and 'Order-Disorder in Solid State'. The back includes notes entitled '40 years Cryst. Research' and 'Crystallography & Other Sciences'.
- E.586-E.588 'Lecture on Nonconformity in nature'. Contents of folder so inscribed.
Manuscript lecture notes etc.
3 folders.
- E.589 4pp manuscript notes entitled 'Co-existence'; 2pp manuscript notes found therewith.
- E.590 Manuscript notes entitled 'Science, politics, peace', 'Friends and Best Use of A.E.', 'Science, Politics, Religion' and 'Science and Christianity'.
- E.591 3pp manuscript notes entitled 'Scientific Challenge'.
- E.592 4pp and 5pp manuscript notes entitled 'Single crystal chemical reactions'.
- E.593-E.596 Miscellaneous manuscript lecture and speech notes.
4 folders.

Publications, lectures and broadcasts

E.597-E.611	Correspondence	1943-1971
	A chronological sequence of correspondence and papers found together.	
	Includes invitations to lecture, correspondence <i>re</i> arrangements and letters of thanks to Lonsdale.	
E.597	1943-1946.	
E.598	1949-1950.	
E.599	1951-1956.	
E.600	1957.	
E.601	1958-1964.	
E.602	1965-1966.	
E.603	1967.	
E.604, E.605	1968. 2 folders.	
E.606	1969.	
E.607-E.611	1970-1971. 5 folders.	

Publications, lectures and broadcasts

E.612-E.625	BROADCASTS	1945-1967, n.d.
	E.612-E.624	Scripts
	E.625	Correspondence
E.612-E.624	Scripts	1945-1967, n.d.
E.612	'Recent research in X-Rays', 1945. 3pp duplicated typescript 'As Broadcast'. This talk was recorded and transmitted in November 1945 for the programme 'Science Notebook'.	
E.613-E.616	'Atomic patterns', 1949. Lonsdale recorded two talks on atomic patterns in June 1949 for the BBC radio programme 'Science Review'. These were part of a series of three talks on crystallography. The third talk was given by H.P. Rooksby.	
E.613	Scripts for the first broadcast. 8pp manuscript draft and 9pp annotated typescript.	
E.614, E.615	Scripts for the second broadcast.	
E.614	7pp manuscript draft; 7pp annotated typescript.	
E.615	8pp annotated typescript; 4pp duplicated typescript 'As Broadcast'.	
E.616	Correspondence and papers relating to the broadcasts, 1949. Includes 6pp typescript entitled 'Atomic patterns in industrial research' by H.P. Rooksby.	

Publications, lectures and broadcasts

- E.617 'Restless solids', 1961.

6pp duplicated typescript.

This script was recorded for the BBC European Service.
- E.618 Broadcast on 'the solid state', 1962.

12pp duplicated typescript, 6 April 1962.

This was produced by Granada TV Network Ltd.
- E.619 12pp duplicated typescript entitled 'A Scientist tries to answer some of her own questions', 1962; newspaper cutting, 24 May 1962.

This draft consists of six talks given by Lonsdale in a BBC programme 'Lift Up Your Hearts', transmitted 21-26 May 1962. The talks were published by the Friends Home Service Committee.
- E.620, E.621 'Looking for meaning: Science II', 1967.

This talk was part of a BBC series 'Religion in its Contemporary Context'. It was transmitted on the Home Service (Schools) on 7 November 1967.
- E.620 Scripts for the talk by Lonsdale.

10pp manuscript draft; 8pp typescript; 9pp typescript; photocopy of 11pp typescript.
- E.621 11pp duplicated typescript of a related broadcast, 1967.

This script for a programme in the series 'Religion in its Contemporary Context' includes several references to Lonsdale.
- E.622, E.623 University of Leeds Television Service, November 1967.

Lonsdale agreed to record several contributions to a series of programmes on crystals produced by the University of Leeds Television Service. These were intended for use in the University's teaching.
- E.622 Manuscript and typescript drafts by Lonsdale.

Publications, lectures and broadcasts

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|--------------------|---|------------------|
| E.623 | Correspondence <i>re</i> arrangements, 1967. | |
| E.624 | 4pp manuscript draft entitled 'TV talk', n.d. | |
| E.625 | Correspondence | 1963-1967 |
| E.625 | General correspondence relating to broadcasts, 1963-1967. | |
| E.626-E.686 | OFFPRINTS | 1924-1972 |
| E.626-E.677 | Offprints of publications and lectures by Lonsdale, 1924-1972, n.d. | |
| E.626 | 1924-1926. | |
| E.627 | 1928-1929. | |
| E.628 | 1931-1936. | |
| E.629 | 1937-1938. | |
| E.630 | 1939-1940. | |
| E.631, E.632 | 1941.
2 folders. | |
| E.633, E.634 | 1942.
2 folders. | |

Publications, lectures and broadcasts

E.635	1943.
E.636	1944.
E.637	1945.
E.638	1946.
E.639, E.640	1947. 2 folders.
E.641, E.642	1948. 2 folders.
E.643	1949.
E.644, E.645	1950. 2 folders.
E.646	1951.
E.647	1952.
E.648	1953.
E.649, E.650	1954. 2 folders.

Publications, lectures and broadcasts

E.651-E.653 1955.
3 folders.

E.654 1956.

E.655-E.657 1957.
3 folders.

E.658, E.659 1958.
2 folders.

E.660, E.661 1959.
2 folders.

E.662 1960.

E.663 1961.

E.664, E.665 1962.
2 folders.

E.666 1963.

E.667 1964.

E.668 1965.

Publications, lectures and broadcasts

E.669, E.670	1966. 2 folders.
E.671	1967.
E.672, E.673	1968. 2 folders.
E.674	1969.
E.675	1970.
E.676	1971-1972.
E.677	n.d.
E.678-E.683	Correspondence <i>re</i> offprints, 1962-1971. Includes requests by Lonsdale as well as requests sent to her. 6 folders.
E.684-E.686	Manuscript and typescript lists of individuals to be sent reprints, 1966, 1968, n.d. 3 folders.