

THE ROYAL COMMISSION ON HISTORICAL MANUSCRIPTS

Report on the papers of
PROFESSOR SAMUEL TOLANSKY, FRS
(1907-1973)
physicist

deposited in the University of London Library

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THE ROYAL SOCIETY

THE ROYAL COMMISSION ON HISTORICAL MANUSCRIPTS

Committee on Scientific and Technological Records

CONTEMPORARY SCIENTIFIC ARCHIVES CENTRE

Papers of

PROFESSOR SAMUEL TOLANSKY, F.R.S.

(1907 - 1973)

Listed by: Jeannine Alton
Harriot Weiskittel

Deposited in the University of London Library

1975

Description of the collection.

The papers, covering the years 1926 - 1973, were received from Mrs. Otilie Tolansky and the Department of Physics, Royal Holloway College.

They cover all aspects of Tolansky's activities and interests. A note on the arrangement of the publications and correspondence precedes Sections D and H,J.

The help of Professor R.W.Ditchburn and Dr. V.I.Little is gratefully acknowledged.

The documents are not necessarily yet open to scholars.

Summary of the career of Samuel Tolansky.

(A full account is given in the Memoir by R.W.Ditchburn and G.D.Rochester, Biographical Memoirs of Fellows of the Royal Society, 20, 1974)

- 1907 b. Newcastle upon Tyne
- 1919 - 25 Rutherford College (Boys' School)
- 1925 - 29 Armstrong College (Durham University)
- 1929 - 31 Research with W.E.Curtis, Armstrong College
- 1931 - 32 Earl Grey Fellowship, Durham University; work with F.Paschen, Berlin
- 1932 - 34 1951 Exhibition Senior Studentship; work with A.Fowler, Imperial
College, London
- 1934 - 47 Assistant Lecturer (later Lecturer and Reader) Manchester University;
work with W.L.Bragg; research on nuclear spins & multiple-beam interferometry
- 1935 m. Otilie Pinkasovitch
- 1946 D.Sc. Manchester University
- 1947 - 73 Professor of Physics, Royal Holloway College, London University; work
in interferometry, diamond physics, Moon dust.
- 1952 Fellow of the Royal Society
- 1966 Hon. Member, American Association for the Advancement of Science
- 1970 Hon. Fellow, Royal Microscopical Society.

Contents of the handlist.

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A. Biographical and Personal. Items A.1 - A.19

- A.1 Misc. biographical notes prepared for conferences, publications etc. Letters to Principal, R.H.C., reporting activities of Tolansky and the Physics Dept. (various dates); letter to Max Perutz describing Tolansky's early work with Lawrence Bragg and A.Fowler.
- A.2 Misc. printed obituaries and tributes. Includes Memoir by R.W.Ditchburn and G.D.Rochester, Biographical Memoirs of Fellows of the Royal Society, Volume 20, 1974, pp.429 - 455.
- A.3 Correspondence of Robert W.Ditchburn and Mrs. Tolansky re his Memoir of Tolansky (see above) 1973
- A.4 Typescript of broadcast talk for 'Science Magazine', BBC European Division, by Professor L.Pincherlo, on Tolansky's work in interferometry. (In Italian). 1946
- A.5 Armstrong College (Durham) Calendar 1932 - 33, giving details of Scholarships and Prizes won by Tolansky. 1932 - 33
Misc. examination papers taken or set by Tolansky. 1928 - 43
- A.6 Invitations and correspondence re Chair of Experimental Physics, Hebrew University of Jerusalem, and Chair of Expt. Physics, Hebrew Institute of Technology, Haifa. 1952
- A.7 Misc. greetings cards.
- A.8, A.9. Misc. letters of condolence on death of Tolansky (not indexed).
- A.10 Misc. photographs of Tolansky, colleagues and collaborators; interferometric photographs.
- A.11 - A.15 Personal files, dealing with family, tax and insurance policies, social engagements, greetings and acknowledgments etc. (not indexed) 1946 - 74
Scientific correspondence is not included in these files, and is dealt with in Section H.
- A.11 1946 - 1960 (includes appointment to Chair of Physics, Royal Holloway College).
- A.12 1961 - 1967
- A.13 1968 - 1970
- A.14 1971 - 1973
- A.15 1973 (includes correspondence arising from Tolansky's death, obituaries, memorial services, lists of mourners and guests, circulation of information to journals and colleagues, etc.)

A.16 - A.19 Misc. biographical material assembled for Royal Society Biographical Memoir, by R.W.Ditchburn & G.D.Rochester.

A.16 Correspondence between biographers and Mrs. Tolansky.

A.17 Misc. tributes & reminiscences of Tolansky by colleagues and others; some of these were quoted or used in part in the Memoir.

A.18 Misc. correspondence on details of Tolansky's life & career.

A.19 Information & bibliographical details of Tolansky's publications, Esp. in Diamond journals.

B. Royal Holloway College, London; Department of Physics. Items B.1 - B.8

B.1, B.2 General correspondence, RHC Dept. of Physics, on equipment and supplies, research grants, students' examinations and careers, progress reports on research completed and in progress etc. 2 folders. Not indexed.

B.1 1956 - 1958

B.2 1959 - 1960

- B.3 Correspondence with Principal and other college authorities re electricity supply for Physics Laboratories. 1946 - 51
- B.4 Correspondence with Admiralty, Metropolitan-Vickers, Ministry of Supply, W. Edwards & Co. and college authorities re Vacuum Evaporating Plant for Dept. Physics. 1946 - 51
- B.5 Misc. references and reports. 1954 - 1963
- B.6, B.7. Misc. correspondence on applications to work in Tolansky's laboratory.
- B.6 1954 - 56
- B.7 1960 - 63; offer to lecture in Tolansky's lab. 1967.
- B.8 Misc. correspondence on visits to and by Tolansky. 1954 - 1970

W. Edwards & Co. (Vacuum Equipment) 1954

R. Sharp, Industrial Diamond Bureau 1965

Edward Eisner, Bell Telephones 1965

G. Malinowski 1969 - 70

Ronald E. Kagarise 1963

Jean Blaise 1963

C. Notebooks and Working Papers Items C.1 - C.21

These notes were not dated by Tolansky. Items C.1 - C.18 appear to relate to work at Manchester University, and an approximate date has been given where possible from the content.

- C.1 - C.7 Laboratory Notebooks (c)1940 - 1946
7 notebooks, many with loose papers; one book dated April 1940, one dated 1944, others bear tentative dates suggested by Dr. V.I. Little.
Observations, notes and calculations, Ms. drafts for articles or short communications, diagrams etc. for work on high resolution spectroscopy.
- C.8 Univ. Manchester Examination Answer Books, containing misc. drafts and notes on crystal structure, high resolution spectroscopy etc.; includes Appendix to 'Introduction to Atomic Physics' Longman, Green 1942. See also D.147
Many of the books bear some indication of contents made by Tolansky.
- C.9 Notes on books and articles read.
- C.10 Misc. drawings, diagrams and calculations.
- C.11 Misc. loose working papers.
- C.12 - C.15 Work on Nuclear Spin
- C.12 loose working papers, mainly on nuclear spin ? 1935
- C.13 2 envelopes of observations and calculations of fine structure in arc spectrum, 1 envelope with Ms. of paper 'The Nuclear Spin of Iodine II'
- C.14 Working papers, notes and calculations; Ms. draft for 'The Nuclear Spin of Iodine III'
- C.15 'Iodine Part IV Perturbation'; working notes and calculations; Ms drafts for 'The Nuclear Spin of Iodine IV'; loose page headed 'The nuclear magnetic moment of Copper.'
- C.16 Misc notes and calculations, dealing with work on Newton's Rings, fringes, interferometric expts.
- C.17 Misc. notes, calculations and drafts, dealing with work on Mica.
- C.18 Misc. papers, notes, drafts, diagrams, proofs, dealing with work on Mica and multiple-beam interferometry (with J. Brossell); includes Ms drafts: 'The Theory of multiple-beam interference'
'The Theory of multiple-beam localised fringes.' 1945
- C.19 Working papers, notes on medieval jewels, especially diamonds. (Perh. for paper 'Some folklore and the history of diamond' 1961)
- C.20 Misc. printed source material collected by Tolansky on early history of diamond polishing and optical instruments.
- C.21 Misc. notes and material for work on lunar dust, correspondence 1969

D. Publications Items D.1 - D.169

Not all manuscripts survive of Tolansky's large output of published work. Those extant have been divided into: articles and reports on scientific work D.1 - D.84; obituaries and reminiscences of colleagues D.85 - 88; abstracts and book reviews D.89 - D.141; books D.142 - D.154; miscellaneous writings D.155 - D.169.

Some items are additional to, or vary from, the bibliography prepared for The Royal Society Biographical Memoir, pp.447 - 455, and a note has been made in these cases.

Many of the later articles and book reviews are accompanied by correspondence, of scientific or personal interest, with colleagues or editors; an indication of this has been made where appropriate.

Scientific articles and reports.

- D.1 The nuclear spin of iodine. I. Fine structure in the first spark spectrum. Proc.Roy.Soc.Lond.A.149. (communicated by Sir Lawrence Bragg). Typescr. with Ms corrections. 1935
- D.2 (with E.Lee) Fine structure in the (²D) series limit terms of the I⁺ spectrum. Proc. Phys.Soc. 48. (communicated by Sir Lawrence Bragg). Typescr.text & diagrams with Ms.corrections. 1936
- D.3 (with E.Lee) The sputtering of large-aperture Fabry-Pérot interferometer mirrors. J.Scient.Instrum. 13. Typescr. with Ms. corrections & additions. 1936
- D.4,D.5. The topography of crystal faces. I.The topography of a (100) face of a left-handed quartz crystal Proc.R.Soc.Lond. A 184. II. The topography of cleavage faces of mica & selenite. Proc.R.Soc.Lond. A 184. (communicated by Sir Lawrence Bragg). Typescrs. with Ms. corrections. 1945
- D.6 New contributions to interferometry, with applications to crystal studies. J.Scient.Instrum. 22. Typescr.with Ms. corrs. 1945
- D.7 - D.14 New contributions to interferometry. Parts I - VIII. Phil. Mag.34 - 37; 2 versions of some sections, others incomplete. Typescr. with Ms. corrections.
- D.15 Further interferometric studies with mica. New multiple-beam fringes and their application. Proc.R.Soc.Lond. A 186. (communicated by Sir Lawrence Bragg).Typescr. with Ms. corrs. 1946
- D.16 Low-order multiple-beam interferometry. Proc.phys.Soc. 58. Typescr.with Ms. corrections. 1946
- D.17 (with A.Khamsavi) Cleavage of selenite and mosaic structure. Nature,Lond. 158. Typescr. with Ms. corrections. 1946

- D.18 The intensity efficiency of the Fabry-Pérot interferometer both in transmission and reflection. Physica s'Grav. 12. Typescr. with Ms. corrections. 1946
- D.19 (with W.K.Donaldson) The reflectivity of speculum metal. J. Scient. Instrum. 24 1947
- D.20 (with P.G.Morris) An interferometric study of the micas. Mineralog. Mag. 28. (communicated by G.F.Claringbull). Heavily corrected typescr. 1947
- D.21 Further applications of multiple-beam interferometry. Sci. Progress, 37. Typescr. with Ms. corrections. This article is not listed in the bibliography of the Royal Society Biographical Memoir. 1949
- D.22 (with N.Barakat) New localised multiple-beam interference fringes formed with curved thin sheets. Proc.phys.Soc. B 53 Collaborator's Ms. 1950
- D.23 A high-resolution surface-profile microscope. Nature,Lond. 169. Manuscript. 1952
- D.24 (with D.G.Nickols) Interferometric studies of hardness test indentations: investigations on tungsten,carbide,steel, duraluminium and tin. Phil Mag. 43.Typescr. with Ms. corrs. See also H.21. 1952
- D.25 A light-profile microscope for surface studies.Z.Electrochem. 56. Typescr. with Ms. corrections. 1952
- D.26 The properties of metallic coatings produced by evaporation and spluttering. J.Electrodep. tech.Soc. 28. Typescr. with Ms. corrections in another hand. 1952
- D.27 (with M.Omar) Observations on slip found in a diamond. Phil. Mag. 44. Manuscript. 1953
- D.28 The surfaces of diamonds. Ind. Diam.Rev. 13. Heavily corrected typescr. and reprint. 1953
- D.29 The microtopography of diamond surfaces. Research 6.Manuscript. 1953
- D.30 Shadow microscopy for measurement of height. Nature,Lond. 171. Typescr. with Ms. corrections. 1953
- D.31 (with A.Halperin) Oriented ring cracks in diamond. Proc. phys. Soc. B. 67. Manuscript, and typescr. with Ms. corrections. 1954
- D.32 (with V.R.Howes) Optical studies of ring cracks on glass. Proc. phys.Soc. B 67 Manuscript, referees' reports,proof of published paper. 1954
- D.33 (with M.Omar and N.S.Pandya) The etching of diamond. I.Octahedron faces. Proc.R.Soc.Lond A 225. Manuscript, and typescript with Ms. corrections. 1954
- D.34 (with N.S.Pandya) The etching of diamond II. Cleavage, dodecahedron and cube faces. Proc.R.Soc.Lond A 225 Typescript with Ms. corrections. 1954

- D.35,D.36 (with V.R.Howes) Pressure crack figures on diamond faces. I. The octahedral face. II.The dodecahedral and cubic faces. Proc. R.Soc. Lond A 230. Manuscripts,corrected typescripts, calculations,photographs for plates. 1955
- D.37 A simple workshop technique for a rapid comparative grading of surface roughness. Lab. Pract. 5. Manuscript. 1956
- D.38 The microstructure of dodecahedral faces of diamond.I.Natural faces. II.Etching experiments. Manuscript. Perhaps draft for work with S.Emara published in Proc Roy.Soc.Lond. A 239 ? 1957
- D.39 (with V.R.Howes) Induction of ring cracks on diamond surfaces. Proc. phys. Soc. B.70 1957
- D.40,D.41 (with A.R.Patel) Etching of crystal cleavages. I Mica II.Diamond octahedral cleavages. Proc.R.Soc.Lond. A 243. Typescr. with Ms. corrections. 1957
- D.42 La microscopie à trois dimensions. Manuscript for lecture with slides, inFrench. See Three dimensional microscopy J.Electron. Control 4. ? 1958
- D.43 (with A.Halperin & S.Emara) On the occurrence of slip in diamond. Phil.Mag. 3. Typescr.with Ms. corrections. 1958
- D.44 Comparative optical and interferometric studies on synthetic diamonds. Proc.R.Soc.Lond. A 263. Typescr. with Ms. corrections, photographs for plates,author's proof. 1961
- D.45 (with E.R.Harrison) Growth history of a natural octahedral diamond. Proc.R.Soc.Lond. A 279. Typescr. with Ms. corrections, photographs for plates. 1964
- D.46 The optical microscope today. Lab. Pract. 13. Manuscript. 1964
- D.47 The microtopographies of surfaces. (Evening Discourse at the Royal Institution, 19 Feb.1965) Proc.R.Instn.Gr.Br. 40. Typescr. with Ms. corrections. 1965
- D.48 Multiple-beam superposition fringes. Lab. Pract. 13.Manuscript; includes letter from Tolansky to Editor on the new technique described in the article. 1965
- D.49 The birefringence of natural diamond; paper read at Diamond Conference, July 1965. See note: Birefringence of diamond, Nature,Lond. 211 1966
- D.50 Birefringence of diamond; manuscript & typescript of a contribution to Science. Includes correspondence with editor in which Tolansky discusses his work on diamond,and the report, which he had originally intended to submit to Nature,Lond.; also a note to Dr. Custers (de Beers Diamond Corp.) This article is not listed in the Bibliography of the Royal Society Biographical Memoir. 1966
- D.51 The teaching of interference fringe localisation. Phys.Educ. 1. Manuscript,and correspondence with editors. 1966

- D.52 The Woman physics student. Typescr.with Ms.corrections of contribution to a book on the status of women, to be published by The Six-Point Group; includes correppondence with Chairman. Not listed in the Bibliography of the Royal Society Biographical Memoir. 1966
- D.53 (with H.Komatsu) Abundance of type II diamonds. Science N.Y. 157. Manuscript, heavily revised typescript; includes correppondence with collaborator , editors and colleagues on research findings and photographs. (The paper was originally considered for Nature,Lond.) 1965 - 67
- D.54 Review of Physics Exhibition. Nature,Lond. 217.Manuscript. 1968
- D.55 (with M.A.Rawle-Cope) Abundance of type II diamond amongst natural micro-diamonds. Ind. Diamond Rev. Manuscript; includes correspondence with editor, & Ms. of shorter version of paper, read at Diamond Conference,Bristol,1968. 1969
- D.56 Complex curvilinear designs from pendulums. Leonardo, 2; includes correspondence with editors. 1969
- D.57 Measurement of elastic recovery in hardness indentation testing. Lab. Pract. 18. Typescr. with Ms. corrections;includes corresp. with editors Tecnicas de Laboratorio re publication of Spanish translation of paper. 1969
- D.58 (with M.A.Rawle-Cope) Type II abundance in natural micro-diamonds. Materials Res. Bull. 4. Manuscript;includes corresp. with editors. 1969
- D.59 The Jewish contribution to modern physics. Encyclopaedia Judaica, 13. Typescr. also a shortened version 'The contribution of the Jew to physics' and correspondence with editors 1968 - 71 including Tolansky's discovery of a diamond in the shape of Mogan David. 1968 - 71
- D.60 Lunar diamonds ? Manuscript with a note 'For Lab. Pract.' Not listed in the Bibliography of the Royal Society Biographical Memoir. ? 1969
- D.61 Multiple-beam interferometry in elementary teaching. Phys.Educ. 5. Manuscript,typescr.,correspondence with editors. 1970
- D.62 The smoothness of glass surfaces. Sci.Glassblowers JI.Manuscript, typescr.,correspondence with editor. 1970
- D.63 Interferometric examination of small glassy spherules and related objects in a 5-gram lunar dust sample. Geochimica et Cosmochimica Acta,1970,Supplement I. Author's proof. 1970
- D.64 Glass spherules in moon dust. Jena Review,1970; manuscript, correspondence with editors including Tolansky's description of his colour photographs of moon dust. (See also J.20) 1970

- D.65 Further studies of Premier Mine small diamonds. Typescr. with Ms. note 'Report sent to Diamond Conference 1970' Not listed in the Bibliography of the Royal Society Biographical Memoir. 1970
- D.66 Moon Dust. (Evening Discourse at the Royal Institution, 20 Feb. 1970) Proc.R.Instn.Gt.Br., 44. Typescr. with Ms. corr. 1971
- D.67 Goethe on interferometry. Nature, Lond. 229. Correspondence, reprint of published work. 1971
- D.68 (with M. Theyer) Bismuth oxide reflecting films for multiple-beam interferometry on steels. Lab. Pract. 20. Typescr. with Ms. corrections; correspondence with editor. 1971
- D.69 White-light multiple-beam interference fringes. Lab. Pract. 21. Typescr. with Ms. corrections, correspondence with editors. 1972
- D.70 The earliest diamond rock-drill. Israel Diamonds, 5. Typescr. correspondence with editor. 1972
- D.71 Lunar glass: Interferometric evidence for low-temperature shock. Science N.Y. 176. Two versions of the paper (typescr.), correspondence with editors. 1972
- D.72 The Moon landings: Apollo 11 and 12. Astronomy and Space, PP. 1 - 15. Typescr. 1972
- D.73 Two typescript articles: Will diamonds be found on the Moon? and Type II micro-diamonds from South Africa; these articles were sent for publication in Industrial Diamond Annual, Vol II; includes correspondence with editor. Not listed in the Bibliography of the Royal Society Biographical Memoir. ? 1972
- D.74 Abundance of type I and type II in South African diamonds. Diam. Res. Typescr. with revisions. 1973
- D.75 'Brief synopsis of lecture on synthetic diamonds & other synthetic minerals' Ms. n.d.
- D.76 Untitled paper on non-destructive testing of metals. Ms. n.d.
- D.77 Untitled draft for paper on cleavage planes of mica & selenite. n.d.
- D.78 Article by research worker on interferometric studies on very pure silicon carbide crystals; Tolansky corrected and rewrote the entire article for submission to Acta Crystallographica. Ms 1963
- D.79 Misc. drafts.
- D.80 - D.82 Misc. reports on research projects undertaken by Tolansky & collaborators. Typescript. 3 folders.
- D.83, D.84. Misc. publications & reports by pupils & collaborators. 2 folders.

Obituaries and reminiscences of colleagues.

- D.85 Fritz Zernicke. (Biog. Mem. Fellows of the Royal Society, 13, 1967, 393 - 402.)
Correspondence with collaborators, colleagues, relatives; Ms. draft & corrected typescript of Memoir.
See also Royal Society files H.10. 1966 - 67
- D.86 Correspondence with S. Akasofu re volume of tributes to Sydney Chapman on his 80th birthday; includes Tolansky's reminiscences of Chapman 1925 - 31 1967
- D.87 Correspondence with S. Keith Runcorn re 80th birthday dinner for W.E. Curtis, and with George D. Rochester re memoir of Curtis; includes Ms. contribution to Memoir by Tolansky. 1969
- D.88 Short Ms. memoir of Harry T. Flint by Tolansky, and related correspondence. 1972

Abstracts and book reviews.

These were omitted **from** the Bibliography of the Royal Society Biographical Memoir.

- D.89 Abstracts. Tolansky wrote abstracts of articles, in English, French and German, on Crystallography, Interferometry, Optics etc. for Science Abstracts, and Chemical Abstracts. A few manuscript examples have been retained, together with misc. correspondence with editors. 1950 - 69
- D.90 - 141 Book reviews; short title only given. Almost all are Tolansky's manuscript; where accompanying correspondence is of interest, a note has been made to that effect.
- D.90 Max von Laue; History of Physics. 1947
- D.91 P. Freedman: The Principles of scientific research. 1947
- D.92 R.C. Johnstone: An Introduction to molecular spectra 1949
- D.93 R.W. Ditchburn: Light. 1963
- D.94 J. Bronowski: Insight. 1964
- D.95 ed. J. Burles: Diamond abrasives and tools. 1964
- D.96 W. Krug et al: Contributions to interference microscopy (2 reviews) 1964
- D.97 G. Causey: Electron microscopy 1962
- D.98 T.L. Squires: Introduction to microwave spectroscopy 1963
- D.99 A.R. Stokes: The Theory of the optical properties of inhomogenous materials 1963
- D.100 ed. G.N. Ramachandran: Advanced methods of crystallography. 1964
- D.101 A.L.E. Barron: Using the microscope 1965
- D.102 ed. D.H. Kay: Techniques for electron microscopy 1965
- D.103 W.M. Mueller et al: Advances in X-ray analysis Vol. 18 1965
- D.104 L.T. Chadderton: Radiation damage in crystals 1965
- D.105 R.A. Bernheim: Optical pumping: an introduction 1965
- D.106 ed. C.W. Davis: Developments in applied spectroscopy Vol 4 1965
- D.107 H.H. Welland et al : Instrumental methods of analysis 1965
- D.108 J. Friedel: Dislocations 1964
- D.109 M. Luckiesh: Visual Illusions 1965

- D.110 L.R.Pearson & E.L.Grove: Developments in Applied Spectroscopy
 D.111 ed.H.A.Szymanski: Infrared band handbook 1966
 D.112 J.R.Edisburg: Practical hints on absorption spectrometry 1966
 D.113 V.S.Fikhtengel'ts et al: Ultraviolet spectra of elastometers & rubber chemicals 1966
 D.114 P.B.Hirsch et al: Electron microscopy of thin crystals 1965
 D.115 eds. T.D.McKinley et al: The Electron microprobe 1966
 D.116 eds. G.R.Mallett et al: Advances in X-ray analysis 1966
 D.117 eds.S.C.Brown & N.Clarke: The Education of a physicist 1966
 D.118 ed. L.May: Spectroscopic Tricks 1967
 D.119 Irvin Rook: The Nature of perceptual adaptation 1967
 (includes letter from publisher to Tolansky)
 D.120 Consumers' Association. Which ? in secondary schools 1967
 (includes correspondence; the C.A. protested at Tolansky's unfavourable review of this book)
 D.121 ed.J.Burls: Science & Technology of industrial diamond 2 vols.1967
 (substantial essay-review,with correspondence)
 D.122 P.R.Thornton: Scanning electron microscopy 1968
 D.123 K.Nakamoto & P.J.McCarthy: Spectroscopy & structure of metal chelate compounds 1968
 D.124 L.V.Azaroff: Elements of X-ray crystallography 1968
 (includes letter by Tolansky to editor commending book)
 D.125 A.R.Striganov: Tables of spectra lines of neutral & ionised atoms (English trans.) 1968;(includes letter of congratulation from Tolansky to author.)
 D.126 R.Barer: Lecture notes on the use of the microscope 1968
 D.127 G.H.Needham: The Microscope 1969
 D.128 R.Brown: Lasers 1969
 D.129 M.W.Thompson: Defects & radiation damage in metals 1969
 D.130 J.F.James & R.S.Sternberg: The Design of optical spectrometers 1969
 D.131 J.Sladkova: Interference of light 1968
 D.132: J.E.Stewart: Infrared spectroscopy 1970
 D.133 T.B.Akrill et al: Essential physics for Ordinary level 1970
 D.134 ed.E.L.Grace: Developments in applied spectroscopy 1970
 D.135 R.B.Beevers: Experiments in fibre physics 1970
 D.136 S.T.Henderson: Daylight & its spectrum 1970
 D.137 ed. E.Matijevic: Surface & colloid science Vol.3 1971
 D.138 ed. Haber-Schram et al: School physics 1971
 D.139 Vasco Ronchi: New Optics 1972; (includes correspondence with editor)
 D.140 eds. A.Weissburger & B.W.Rossiter: The Physical Methods of chemistry Vol.1 1972
 D.141 Maurice Goldsmith: The Scientist and you n.d. (press-cutting)

D. 142 - D.154 Books

D.142 - D.145 Hyperfine structure in line spectra and nuclear spin.
 (Methuen) 2 eds. 1935 - 47

- D.142 Author's manuscript, contained in 25 University of Manchester Examination answer books, numbered 1 - 25 by Tolansky, many with his indication of contents.
 D.143 Author's corrected typescript with extensive Ms. corrections and additions.
 D.144 Author's Ms additions, revisions & preface for 2nd edition, with some working papers and related offprints.
 D.145 Revised author's proof of 2nd.edition.

- D.146 High resolution spectroscopy (Methuen) 1947
Author's corrected Ms. and diagrams.
- D.147 Introduction to atomic physics (Longman) 1942 - 63
Author's Ms. and typescript numbered additions. See also C.8
- D.148 Multiple-beam interferometry of surfaces and films (Oxford) 1948
Misc. Ms. & typescr. drafts & diagrams.
- D.149 Interference microscopy for the biologist (Charles Thomas U.S.A.) 1968
Ms. of Preface & table of contents.
See also J.20
- D.150 Modern revolution in optics (Penguin) 1969
Author's Ms. of Preface for the Japanese translation; includes
correspondence with Dr. Ichiro Sunagawa, Tolansky's former pupil, who
made the translation.
- D.151 Matter in Motion.
Ms. drafts & outlines for Vol A1, Penguin Panorama of Science; includes
publisher's list of titles & authors projected for the series.
- D.152 Ms. drafts of introduction & misc. chapters of work on interferometry.
(perh. for Multiple-beam interferometry... 1968 D.148)
- D.153 Misc. drafts on interference.
- D.154 Misc. printed reviews of Tolansky's books.

D.155 - D.169 Miscellaneous writings.

- D.155 Women in physics; article in Science Festival Supplement. n.d.
- D.156 The A.U.T. Report on university expansion, 7 p. (article for
publication in The Times); with 2 annotated copies of the
A.U.T. Report 1948, 1949. (c) 1949
- D.157 The effect of conscription on the universities 8 pp. n.d.
- D.158 'The Growth & Development of the Jewish Population of
Newcastle'. Ms. 20 pp & 1 graph.
with Ms. heading: 'This report was written in the summer of
1926. It was submitted for and was awarded the Gladstone
Memorial Prize (1929) at the (then) Armstrong College, Durham
University. The present article is effectively the original
essay, with a few stylistic improvements.' [1926]
- D.159 Scripts and transcripts of broadcasts 1963 - 68
1. A new theory for the structure of snowflakes 15 April 1963
 2. Talking about science: Athletic records 27 May 1963
 3. Snowflake symphonies 22 Dec. 1967
 4. Mozart. Account of a very remarkable young musician. 8 May 1967
 5. Extract from 'Ten O'clock' (on Apollo 7) 22 Oct. 1968
 6. Diamonds on the Moon 20 Sept. 1965
 7. Is there a radiation risk from luminous wristwatches? n.d.

- D. 160, D.161 Bicentenary Lecture on Thomas Young, to be given at the Royal Institution, May 1973. (Tolansky died March 1973). 1972 - 73
 See also H.16
 D.160 Invitation to give lecture; working papers & material
 D.161 Ms. notes, draft of lecture, notes on demonstrations & experiments for lecture left unfinished at Tolansky's death.
- D.162 - D.168 Work on music, esp. Jewish Music in the Bible.
- D.162 'Chazanuth. The art of Synagogue music'; typescr. with Ms. corrections, perh. for article or broadcast talk. n.d.
- D.163 'Some notes on Musical Instruments in the Old Testament'; drafts, notes, transcriptions from Hebrew, Ms. & corrected typescr. 1969
- D.164 Typescr. for talk or article on Jewish cantillation; 33 pp, first page missing.
- D.165 Ms. 'Notes on Musical Instruments in the Bible. Thirty types identified.' n.d.
- D.166 Misc. working papers on early instruments, musical pitch & timbre, early gramophone recordings etc.
- D.167 Misc. notes for lectures, on music, folklore, diamonds, sociology, relativity, energy supplies, optical illusions, dream analysis, colour, witchcraft etc.
- D.168 Article on cantillation (incomplete, unpublished) and related correspondence.
- D.169 Misc. photographs, figures, diagrams, captions etc. for publications.

E. Committees, Advisory Bodies etc. Items E.1 - E.13E.1 - E.4 Committees of London University.

- E.1 I.C.I. Research Grants and Fellowships. 1952 - 59
Applications for grants, statements of research projects, correspondence with colleagues and officials.

Includes Tolansky's appointment as member of Turner & Newall Research Fellowships Committee 1950 -51,51- 52,52 - 53 and his reports on Fellows' work. See report of 16 June 1953 on Dr. Rosalind Franklin.
- E.2 Sir John Cass College (later City of London Polytechnic). 1967 - 73
Correspondence etc. re Tolansky's service as representative of London Univ. on College Council of Sir John Cass Foundation, on City of London Polytechnic Formation Cttee. (1969), on C.O.L.Poly. Academic Council (1970)
Tolansky resigned, from pressure of work, Feb. 1972.
- E.3 Birkbeck College. 1972
Correspondence re Tolansky's appointment as representative of London Univ. on Governing Body, Birkbeck College.
- E.4 Shorter misc. correspondence re Appointing Committee, Readership * in Physics, Q.M.C. 1955; Special Advisory Board for Crystallography, 1966; Special Advisory Board in Astronomy, 1965 - 69; Intercollegiate neutron activity (declined), 1972. *Q.M.C.=Queen Mary College
- E.5 The Institute of Physics - Education Group. 1949 - 54
Correspondence re Tolansky's appointment to this Group Committee, its activities & conferences (Physics in Schools 1950)
- E.6 Department of Scientific and Industrial Research. 1959 - 67
Science Research Council Research Grants Cttee. Physics Sub-Cttee.; Tolansky served on this Committee from its inception.
Misc. correspondence etc. on applications for research grants; includes correspondence 1966 - 67 on Tolansky's application to participate in analysis of lunar dust, and his proposed investigation. See also NASA files H.38 - 44
- E.7 Kingston College of Art 1955 - 68
Tolansky served as Governor 1955 - 68.
- E.8 Surrey County Council Education Committee; Richmond Institute of Further Education. 1958 - 59
Tolansky served as representative of London Univ. on Governing Body.
- E.9 National Gallery. 1968 - 72
Honorary Advisory Scientific Committee on effects of light & pigmentation on pictures in Gallery. Tolansky chaired Study Group on measurement of colour change.
Includes 2 letters of 1952 on light profile. 1952

- E.10 Inter-University Council for Higher Education Overseas. 1962, 1963
Invitations to serve on Appointments Boards.
- E.11 Scientific Advisory Committee of 'Laboratory Practice'; corresp. 1959
- E.12 - E.13 Royal Society of Arts. 1950 - 73

Tolansky served on Council of the Society 1957 - 62, and 1970 - 73, as Chairman of the Examinations Committee 1961 - 62, as Chairman of the Joint Committee of the Society and London Chamber of Commerce.

Misc. corresp.; includes Tolansky's corrected proof of his Dr. Mann Juvenile Lectures delivered Dec. 1964 - Jan. 1965, and misc. reviews.

2 folders.

E.12 1950 - 1965
E.13 1966 - 1973

F. External Examining Items F.1 - F.10

- F.1 Bradford Institute of Technology, later University of Bradford. 1961 - 71
Correspondence re examinations for Diploma in Applied Physics, syllabus, draft question papers, scripts, reports etc.; later for Applied Physics course, Hons & Ordinary.
- F.2 University of Durham; correspondence re theses. 1959
- F.3 University of Leicester 1964 - 67
Correspondence re Tolansky's service as External Examiner and Assessor.
- F.4 University of Nottingham; correspondence re theses. 1960 - 62
- F.5 Misc. reports on theses
Andhra Univ. India, 1959 - 62
Punjab Engineering College, India, 1959
Karnatek Univ. Dharwar, 1959
- F.6 University of London . 1959 - 62
Misc. correspondence on physics examining and theses (during Tolansky's service as Chairman of the Board of Staff Examiners in Physics).
- F.7 Royal University of Malta 1964 - 73
Correspondence, drafts of question papers etc.
Tolansky served as first External Examiner in Physics, B.Sc. 1964 - and M.Sc. 1967 -
Many of the letters contain information on Tolansky's examining load in London and elsewhere.
- F.8 Gemmological Association of Great Britain. 1963 - 73
Correspondence on Diploma course on Gem Diamonds, Birmingham School of Jewellery and Silversmithing.
- F.9 - F.10 Civil Service Commission. 1947 - 69

Tolansky served as examiner in Physics, Administrative Group Competition.
Correspondence on setting and marking of papers; drafts of papers set by Tolansky.

Misc. references and recommendations.

G. Conferences, Demonstrations, Exhibitions. Items G.1 - G.8.

- G.1 Correspondence etc. with colleagues and officials in Germany. Conference of German Physical Society in the British Zone, Göttingen, Sept. 1947, with reports by Tolansky, and his paper 'Physics in the German Universities'; Corresp. on students and equipment; invitation to lecture etc. Conference on Crystal Surfaces, Berlin, 1952; includes communication by Tolansky. 1947 - 52
- G.2 Colloquium on the Optical Properties of Solid Thin Films, Marseilles, 19 - 23 April, 1949; includes Tolansky's Summary of papers read, and Report on Colloquium. 1949
- G.3 First European Earth and Planetary Physics Colloquium, Reading, 30 March - 2 April, 1971. Tolansky was 'Sponsor' for Lunar Materials Section. Correspondence with organisers & collaborators, Tolansky's drafts of talks schedule. 1970 - 72
- G.4 Misc. correspondence with colleagues re invitations to conferences, papers read etc. 1946 - 73
- G.5, G.6 Misc. exhibitions of research projects, photographs etc. Correspondence with colleagues & organisers.
- G.5. International Union of Crystallography, Moscow, 1966
University of Sussex, 1966
International Union of Crystallography, Stonybrook, 1969
Quekett Microscopical Club, 1970
Institute of Contemporary Arts, 1970 - 71
Council of Industrial Design, 1971
Devices Instruments Ltd., 1971
- G.6. International Conference on Synthetic Diamonds, Kiev, 1971 - 72
- G.7 Festival of Britain. 1949 - 51
Corresp. re Exhibition in Science Section of quartz oscillator, diamond crystals, cleavage planes, and photographs from Tolansky's laboratory.
- G.8 Misc. correspondence re conferences, visits, publications (mainly with French colleagues), esp. on Colloques Internationaux du C.N.R.S., Marseilles 1945, and 'Réactions superficielles des gaz sur les métaux', Paris, 1956. Includes some scientific correspondence. 1950 - 58

H. Scientific correspondence. J. Publications correspondence.General note on the correspondence

Professor Tolansky conducted an extensive correspondence with scientific colleagues, instrument and equipment manufacturers, learned and professional societies and the like. His special interests in surface topography of diamond and many other structures brought him numerous enquiries from the research departments of industrial and manufacturing concerns. In addition, his many publications and his contributions to radio and television programmes involved him in correspondence with editors, journalists, producers and members of the general public.

Tolansky dealt very conscientiously with this varied correspondence and many of his replies contain reports on work in progress in his laboratory or elsewhere, or matters of general personal or scientific interest. Wherever possible, an indication of information of this kind appears in the itemised list below.

Not all correspondents are indexed, since in several cases the incoming letter has been lost and only Tolansky's reply remains. Known correspondents are listed on the relevant files, and in the Index on p. 30

H. Scientific correspondence. Items H.1 - H.103

- H.1. from K.Murakawa, on hyperfine structures. 1932
- H.2. Corresp. with colleagues, instrument manufacturers, officials etc. on work in Tolansky's laboratory at Manchester during and after Second World War, and later at Roy. Holloway College. 1943 - 57
Work on diamonds, mica, crystalline and metallic surfaces.
- H.3. Corresp. with Adam Hilger Ltd. later Hilger & Watts, 1936 - 63
re supply and specification of optical flats, slit projection microscope and other equipment for research at Manchester and RHC, mainly on quartz, diamond and other crystals. Includes technical corresp. on construction and performance of equipment.
- H.4. - H.11. The Royal Society. 1936 - 47
Corresp. with colleagues and officials re work in progress, allocations of research support and equipment, exhibitions, publications etc.
8 envelopes, 4 folders.
- H.4 1936- 47
- H.5 1948 - 52; includes Tolansky's election to the Society & letters of congratulation (not indexed) and appointment to Board of National Physical Laboratory.
- H.6 1953- 55 ; includes Tolansky's appointment to Executive Cttee. National Physical Lab.
- H.7 1953 - 56
- H.8 1956 - 57
- H.9 1958 - 65; includes Tolansky's appointment to Physics Sectional Cttee.
- H.10 1966 - 67; includes invitation to write Biog. Memoir of Fritz Zernicke. See also D.85
- H.11 1968 - 74; includes invitation to write Biog. Memoir of Sir Venkata Raman, and corresp. on Lunar Dust material & Reading Colloquium. See also G.3., H.38 - 44.
- H.12 - H.14 Corresp. with Cooke, Troughton & Simms and others 1946 - 59
on Vickers Projection microscope, supply and specification of equipment, Tolansky's study of crystal growth by interferometric methods, his suggestions for improvements to equipment for 'light-slit' profiles and other matters in microscopy.
Includes related printed material and typescripts of Tolansky's articles on high-resolution profile microscopy.
3 folders.
- H.12 1946 - 51
- H.13. 1952 - 59
- H.14 related offprints etc.

- H.15. Correspondence on Mica. 1946 - 72
 See also H.23, H.24
 Corresp. with colleagues, research departments etc. on optical and electrical properties of mica, natural and synthetic mica, Australian mica etc., with reports by Tolansky on his researches.
- H.16. The Royal Institution. 1948 - 73
 Corresp. on equipment, exhibitions and lectures.
 Includes invitation and preliminary corresp. on Thomas Young Bicentenary Lecture to have been given by Tolansky in May 1973 (Tolansky died in March 1973) See also D.160, 161.
- H.17. Interferometric Studies of Quartz Crystals 1948 - 52
 Corresp. with colleagues, research laboratories, Panel on Crystallisation, Ministry of Supply etc. re research on multiple-beam interferometry and quartz oscillators.
 Includes reports on research findings.
- H.18. Kodak Ltd. 1949 - 50
 Correspondence on slides & photographs of quartz crystals.
- H.19. Correspondence with British Coal Utilisation Research Council, National Coal Board, etc. on Tolansky's investigation of coals by interferometry. 1949 - 56
- H.20. Sparcatron Ltd. 1955 - 66
 Corresp. on smoothing of metal surfaces, analysis of samples by Tolansky, hardness tests on boron carbide, etc.
- H.21 Corresp. from D.G. Nickols on paper written by him in collaboration with Tolansky, with diagrams and part of Ms. draft. See also D.24 1950
- H.22. Corresp. with colleagues and industrial research laboratories on interferometric examination of misc. surface finishes with diamond turning tools. 1950
- H.23 - H.28. Scientific & personal correspondence, mainly with American colleagues. 1950 - 64
 6 folders.
 H.23 1950 - 51; mainly on mica
 H.24 1951
 H.25 1952 - 53; mainly on thin film techniques
 H.26 1954 - 58
 H.27 1959 - 60
 H.28 1962 - 64
- H.29 - H.37 Work on Diamonds 1952 - 73
 Scientific and other correspondence with mining corporations, suppliers and dealers in diamond, gemmologists, academic colleagues,

continued.....

H.29 - H.37 continued

museums, publishers etc. The correspondence deals with Tolansky's work on natural and synthetic diamond, marine diamond, meteoric diamond, microdiamond, Type I and Type II diamond, history of natural and synthetic diamond; arrangements for annual Diamond Conferences 1952 - 73; periodic reports on work on diamond in progress at RHC; reports on papers on diamond submitted for publication; misc. publications on diamond, esp. with contributors to special number of Laboratory Practice on Diamonds in Industry, 1967 (organised and supervised by Tolansky), H.34.

Includes Mss of the following papers or articles by Tolansky:

'Early Historical Uses of Diamond Tools', Oxford Conference, 1966

'Studies on de Beers Synthetic Diamonds', 1969

notes & papers at Cambridge Conference, 1971

Preface to 'Diamonds' by Eric Bruton.

9 folders.

H.29	1952 - 58
H.30	1959 - 61
H.31	1962 - 64
H.32	1965 - 66
H.33	1966
H.34	1967
H.35	1967 - 68
H.36	1969 - 70
H.37	1971 - 73

H.38 - H.44 NASA Lunar Sample Research Programme

1967 - 73

Tolansky was a Principal Investigator for returned lunar samples in the Apollo Program; his research covered the Apollo 11 and 12 missions, and he had submitted proposals for research on missions 14 - 19.

The correspondence includes, among general administrative matters, considerable scientific information on Tolansky's research techniques and results

H.38	Research programmes and applications	1970 - 72
H.39	Notes and reports on Moon Dust samples from Apollo 11 & 12; photographs of interferometric examinations.	
H.40	Misc. printed matter circulated to investigators; particulars of planning teams, allocation of work & materials, arrangements for despatch of lunar dust, press releases and official photographs.	
H.41 - 44	Correspondence, with SRC., NASA officials, colleagues & collaborators, publishers, newspapers, members of the general public etc. The correspondence was continued by Dr. V.I. Little after Tolansky's death.	
H.41	1967 - 68	
H.42	1969	
H.43	1970	
H.44	1971 - 73	

- H.45 Letters from F.Paschen. (Tolansky studied in his laboratory 1932,1937 in 1934.
(In German) Testimonial for Tolansky 1932; 2 autograph letters on state of German science, 1932,1937.
- H.46 Corresp. with Charles Singer, on Jewish scientists. 1955 - 56
- H.47 " with George L.Kehl, on microphotography. 1957
- H.48 " with S.A.Ramsden, on Zeeman & Stark effects in published data on Zeta. 1958 - 60
- H.50 " from B.J.Mason, on crystal structures. 1958
- H.51 " with A.R.Patel & M.S.Joshi, on diamond structure 1959 - 60
- H.52. " with K.Burgherr, on silicon carbide crystals 1959
- H.53. " with D.G.Murchison, on directional hardness techniques 1959
- H.54 " with M.J.Merriek, (Furniture Devt. Council) on surface roughness measurements of timber by light-profile microscope. 1957 - 59
- H.55. " with J.R.Hoch; includes 'recipe' for activated charcoal 'given to me by W.E.Curtis...and I believe goes back to Dewar' 1959
- H.56 " with Anthony Michaelis, Dame Kathleen Lonsdale & others on early book on crystallography. 1959
- H.57 " with H.E.C.Parsons (Tate & Lyle) on sugar crystals. 1959
- H.58 " with E.Hedges, W.Hoare (Tin Research Institute) on metallurgical applications of crystallography. 1959
- H.59 " with R.S.Bradley, on diamond research. 1959
- H.60 " with O.S.Heavens, on line spectra & gratings. 1959 - 60
- H.61 " with W.J.R.Merren (Pilkington Bros.), on interferographs of float glass. 1959
- H.62 " with E.K.Robinson (St. Peter's, York) on oscillators 1959
- H.63 " with O.Darbyshire, on high-resolution fringes. 1959
- H.64 " with E.Hedges, J.G.Wood, S.Keith Runcorn, D.W. Collinson, W.Sucksmith and others, on cleavage, and magnetic moment in diamond. 1959
- H.65 " with misc. colleagues on Special Science Supplement for Times Educational Supplement. 1959 - 60

- H.66 with W.J.R.Merren (Pilkington Bros) on surface measurement of float glass. 1963
- H.67 with Dr. F.Guido Canepa; includes some scientific corresp. on interferometric examination of biological structures. 1963 - 70
- H.68 with J.F.Danielli, on the significance and use of interferometry in biological studies. 1964
- H.69 with John N.Howard on article submitted by Tolansky for publication in Applied Optics; includes note 4 Jan 1965 on Tolansky's conversation with Lord Rayleigh on high resolution instruments. 1962 - 65
- H.70 with Sir Gordon Sutherland, on optical illusion photographs. 1965
- H.71 from G.Kretschmer, on symmetry of snow crystals. 1966
- H.72 on El Greco's astigmatism. 1966
- H.73 on early diamond rock-drills. 1965 - 66
- H.74 with Science Museum, on Barton's Buttons and Moon Marbles. 1966 - 70
- H.75 from W.Bardsley, on commercial crystals in electronics industry. 1967
- H.76 on fluorescence in diamonds. 1967
- H.77 from Gilbert Hatley, on early phase-contrast microscope. 1968
- H.78 with H.H.Hopkins; report on current activities in optics at R.H.C. 1968
- H.79 with C.I.Phillips, on early reflecting microscope designed by R.Birch. 1968
- H.80 on the microscopy work of J.P.Thieri. 1968
- H.81 on Optical Illusions, with the children of Grantchester School, Cambs. 1969
- H.82 with Otto Frisch, on Mozart, and lunar glassy spherules. 1970
- H.83 with Harold Burge, on blood-pressure gauge. 1970 - 72
- H.84 on Optical Illusion in the ancient Greek temples. 1970
- H.85 on work on Goethe's theory of colour. 1970
- H.86 with Patrick Moore, on lunar samples. 1971
- H.87 with C.Arnold Beevers, on snow crystal structures. 1971
- H.88 with B.Ariel, on angular and linear velocity; and on Russian translation of Tolansky's books. 1971
- H.89 on earth's magnetic field. 1971

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|-------|---|-----------|
| H.90 | on 'musical stone'. | 1971 |
| H.91 | on collapsars. | 1971 |
| H.92 | on fringes in Michelson - Morley experiment. | 1971 |
| H.93 | with GEC Semiconductors, on silicon carbide crystals for interferometric studies. | 1971 |
| H.94 | with D.A.Spencer, on optical filtering. | 1971 - 72 |
| H.95 | on diamond faces. | 1972 |
| H.96 | with E.W.Nester, on the work of Van Cittert, and the Leeuwenhoek microscope. | 1972 |
| H.97 | with Mrs. C.E.Arregger, on 'Concise Dictionary of Optics', and value of multiple-beam interferometry. | 1972 |
| H.98 | on infrared sensitive material. | 1972 |
| H.99 | on sulphur dioxide testing. | 1972 |
| H.100 | with E.Stuart Kirby, on Russian translation of Tolansky's 'Modern Revolution in Optics', and Kirby's proposed book on diamonds in Russia. | 1972 - 73 |
| H.101 | with M.M.Brewer (Unilever Research) on interferometric examination of polished and abraded teeth. | 1972 - 73 |
| H.102 | Misc. scientific correspondence (not indexed). | 1952 - 72 |
| H.103 | Correspondence with members of the Royal Family:
from Princess Alice Countess of Athlone, on Tolansky's research (1955, 1957), and condolence on his death (1973)

from Sir Edward Ford, accepting Tolansky's presentation of his book on diamond to H.M.The Queen (1961)

from H.R.H. Prince Philip, on Moon Marbles (2 letters 1970) | |

J. Publications Correspondence Items J.1 - J.29

J.1 - J.20 Correspondence with publishing houses, arranged alphabetically. The files deal with Tolansky's books, publishing schedules, proofs, diagrams and charts, arrangements for foreign translations, reprints etc.; some also include his reports on MSS submitted for reading and advice. Names of correspondents are not included in the index unless material of special scientific or personal interest is involved.

- | | | |
|--------------|---|---|
| J.1 | <u>Academic Press.</u> | 1969 - 70 |
| | re <u>Multiple-beam interference microscopy of metals</u> , 1970 | |
| J.2 | <u>Edward Arnold (Publishers) Ltd.</u> | 1967 - 69 |
| | re <u>Microstructure of surfaces</u> , 1968 | |
| J.3 | <u>Bild der Wissenschaft</u> | 1965 - 68 |
| | re Tolansky's articles 'Diamonds in Industry' (Diamanten für die Technik, <u>Bild Wissenschaft</u> , 3, 181 - 189), and 'Diamonds on the Moon' | |
| J.4 | <u>Dover Publications and Clarendon Press</u> | 1965 - 70 |
| | re reprinting of <u>Multiple-beam interferometry of surfaces and films.</u> | |
| J.5 | <u>Encyclopaedia Britannica International Ltd.</u> | 1967 - 73 |
| | re Tolansky's articles for the Encyclopaedia: Holography, Interferometer, Kaleidoscope. Includes Ms. drafts of articles. | |
| J.6-
J.13 | <u>Longman, Green & Co. Ltd (now Longman Group)</u> | 1942 - 72 |
| | General correspondence on Tolansky's books; includes letters of congratulation and scientific comment from colleagues, and Tolansky's reader's reports on MSS.
8 envelopes in 4 folders. | |
| J.6 | 1942 - 47 | } re <u>Introduction to atomic physics</u> , 1942 etc.
<u>Introduction to interferometry</u> , 1955
<u>Surface microtopography</u> , 1960 |
| J.7 | 1948 - 50 | |
| J.8 | 1951 - 54 | |
| J.9 | 1955 | |
| J.10 | 1956 - 60 | |
| J.11 | 1961 - 66 | |
| J.12 | 1967 - 68 | |
| J.13 | 1970 - 72 | |
| J.14 | <u>Methuen & Co. Ltd.</u> | 1945 - 71 |
| | General correspondence on Tolansky's books; includes Tolansky's reader's reports on MSS, among them an unfavourable report on Frederick Soddy's proposed book 'Real Alchemy and the Release of Atomic Energy' | |
| | re <u>High resolution spectroscopy</u> , 1947
<u>Hyperfine structure in line spectra and nuclear spin.</u>
<u>History and use of diamond</u> , 1962
<u>The strategic diamond (not accepted)</u> | |

- S.T. C.S.A.C. 24/1/75 28.
- J.15 John Murray (Publishers) Ltd. 1966 - 68
- J.16 Oliver & Boyd Ltd. 1967 - 71
 re The strategic Diamond, 1968
- J.17 Penguin Books Ltd. 1960 - 73
 re Penguin Science Survey A, 1963 (article on optical illusions)
Penguin Science Survey A, 1965 (article on diamonds)
Modern revolution in optics, 1969
- J.18 - J.19 Pergamon Press Ltd. and Veneda Publishing Co. 1956 - 71
 General correspondence on Tolansky's books; includes Tolansky's
 reader's reports on MS3 submitted.
 re Optical illusions, 1964
Curiosities of light waves and light rays, 1964
- J.20 Carl Zeiss 1964 - 70
 Correspondence re permission to reproduce Zeiss interference
 micrographs for Tolansky's book Interference microscopy for the
biologist, Charles Thomas, U.S.A., 1968; and on Tolansky's
 articles for Jena Review, Barton's buttons - a curiosity in the
history of optics, 1968, and Glass spherules in Moon dust, 1971.
 See also D.64
- J.21 - J.24 1954 - 73
 General correspondence with publishers and editors, journalists,
 colleagues, members of the general public. (not indexed)
 4 envelopes in 2 folders.
 J.21 1954 - 63
 J.22 1964 - 67
 J.23 1968 - May 1971
 J.24 June 1971 - Jan. 1973
- J.25 Misc. requests from publishers and editors for books or 1952 - 71
 articles to be written by Tolansky.
- J.26 Misc. invitations to Tolansky to review publications. 1959 - 71
- J.27 Misc. corresp. on books and articles referred to Tolansky; 1959 - 72
 some scientific material is included in the reports.
- J.28 Misc. corresp. with NATURE on articles submitted for advice. 1968 - 70
- J.29 Misc. corresp. on articles submitted to Industrial Diamond 1968 - 71
Review.

K. Lectures, Broadcasts and Television appearances. K.1 - K.15.

K.1 - K.6 BBC & ATV Broadcasts and Television appearances. 1950 - 73

Misc. correspondence with producers and presenters of programmes, members of the general public etc. Includes various scripts, outlines for talks and programmes. Much of the correspondence has scientific interest of a popular kind.

The index is selective. Correspondents are listed on file & General Index. 6 envelopes in 3 folders.

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|-----|-----------|---|
| K.1 | 1950 - 59 | |
| K.2 | 1960 - 64 | |
| K.3 | 1965 | Includes material related to 'April Fool' programme devised by Tolansky, transmitted on BBC2, claiming to transmit the smell of onions, coffee etc. over the air. |
| K.4 | 1966 | |
| K.5 | 1967 - 69 | |
| K.6 | 1971 - 72 | Includes Ms. notes on Collapsars, and correspondence on Pulsars with Patrick Moore. |

K.7 - K.15 Lectures, addresses and talks. 1947 - 73

Professor Tolansky lectured and demonstrated extensively on his researches to many types of audience: learned societies, student scientific and other clubs, youth groups, local societies, Jewish associations, summer schools, research laboratories etc. His skill and adaptability as a lecturer are abundantly attested in the correspondence.

The correspondence is arranged chronologically; only letters of special scientific or personal interest are indicated below.

G.F. Claringbull	15 April 1947
L.C. Martin	11 Jan. 1950
N.P. Allen	12 May 1950
C.A. Coulson	July - Nov. 1951
Mary Dempsey	May - Dec. 1951
G.A. Whipple	March 1972
C.S. Heavens	May 1972

9 Folders

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| K.7 | 1947 - 1951 |
| K.8 | 1952 - 1955 |
| K.9 | 1956 - 1960 |
| K.10 | 1962 - 1964 |
| K.11 | 1965 - 1966 |
| K.12 | 1967 - 1969 |
| K.13 | 1970 |
| K.14 | 1971 |
| K.15 | 1972 - 1973 |

Index to principal correspondents.

ALLEN, Norman Percy		K.7
ALLSOPP, C.	B.	K.1
ANDERSON, Daniel H.		H.41 - H.44
ANDRADE, Edward Neville da Costa		H.16
ANDREWS, Gordon F.		F.8
ARREGGER, Constance E		H.3, H.13, H.97
ATHLONE, Princess Alice, Countess of		H.103
BAILEY, A.	I.	H.15
BAINES, H.		H.18
BAKER, L.	R.	J.27
BAKUL, V.		G.6
BARDSLEY, W.		H.75
BASTIN, J.	A.	H.41 - H.44
BEDARIDA, Federico		G.21, H.29 - H.37, J.6 - J.13
BEEVERS, C.	Arnold	H.87
BERMAN, Robert		H.29 - H.37
BIANCHI, Umberto		H.15
BIGGAR, James		H.15
BLACKETT, Patrick Maynard Stuart, Baron Blackett of Chelsea		H.2, H.5, H.9
BLACKMAN, Moses		H.15
BOGNAR, Lew L.		H.28
BOWDEN, F.	Philip	H.9
BRADLEY, Dan J.		H.11, J.14
BRADLEY, R.	S.	H.59
BRAGG, Sir (William) Lawrence		H.15, H.16
EREWER, M.	M.	H.101
BROOKES, C.	A.	H.29 - H.37
BROSSELL, Jacques		H.2
BROWN, G	Malcolm	G.3, H.11
BRÚ, Luis		G.4
BRUCE, C.	F.	H.15
BRUTON, Eric		H.29 - H.37
BUCKLEY, E.	J.	J.18 - J.19
BUCKLEY, H.	E.	H.2
BUNDY, F.	P.	H.47

BURGHERR, K.	H.52
BUTLER, Clifford Charles	H.11
CANEPA, H. Guido	H.67
CAUCHOIS, Yvette	G.8, H.15
CAVENEY, Robert J.	H.29 - H.37
CHAMPION, F. C.	J.18 - J.19
CLARINGBULL, Gordon Frank	H.15, K.7
CLARK, Joan	K.3
COLLETTE, Alfred	H.27
COLLINSON, D. W.	H.64
COTTY, William F.	H.29 - H.37, H.41 - H.44
COULSON, Charles Alfred	K.7
COURTNEY-PRATT, J. S.	H.15
COX, Sir (Ernest) Gordon	H.15, H.17, H.23
CURTIS, William Edward	H.6
CUSTERS, J. F. H.	H.25, H.29 - H.37
CUTHBERTSON, Joseph William	F.4, H.22
DANIEL, Paul	H.29 - H.37, J.29
DANIELLI, James Frederic	G.4, H.28, H.68
DARBYSHIRE, O.	H.63
DARWIN, Sir Charles	H.5
DAVIES, Martin	E.9
DAVIS, J. G.	H.34
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