

THE CHEMICAL SOCIETY

NOTICE OF FORTHCOMING SCIENTIFIC MEETINGS

IN LONDON.

Thursday, February 18th, 1943, at 2.30 p.m.

Tilden Lecture on "Aspects of Nucleotide Chemistry," by Professor J. M. Gulland, M.A., D.Sc.

Thursday, March 25th, 1943.

Annual General Meeting and the Presidential Address. (Further particulars will be announced.)

MEETINGS OUTSIDE LONDON.

EDINBURGH.

Thursday, February 18th, 1943, at 7.30 p.m.

Lecture on "The Chemistry of Hashish," by Professor A. R. Todd, F.R.S. Joint Meeting with the Local Sections of the Institute of Chemistry and the Society of Chemical Industry. To be held at the North British Station Hotel.

GLASGOW.

Friday, February 19th, 1943, at 7.30 p.m.

Lecture on "The Chemistry of Hashish," by Professor A. R. Todd, F.R.S. Joint Meeting with the Local Sections of the Institute of Chemistry and the Society of Chemical Industry. To be held in the Royal Technical College.

LEEDS.

Tuesday, March 9th, 1943, at 5.15 p.m.

5.15 p.m. Exhibition of scientific films and apparatus.

6.0 p.m. Light refreshments.

6.30 p.m. Lecture on "The Synthesis of High Polymers," by Professor H. W. Melville, F.R.S.

Joint Meeting with the University of Leeds Chemical Society. To be held in the Chemistry Lecture Theatre of the University, Woodhouse Lane.

NORTH WALES.

Friday, February 26th, 1943, at 5.30 p.m.

Lecture on "Some Aspects of the Chemical Constitution of Milk Fats," by Professor T. P. Hilditch, F.R.S. To be held in the Lecture Theatre of the Chemistry Department, University College of North Wales, Bangor.

SHEFFIELD.

Friday, February 26th, 1943, at 5.30 p.m.

Tilden Lecture on "Aspects of Nucleotide Chemistry," by Professor J. M. Gulland, M.A., D.Sc. Joint Meeting with the University Chemical Society. To be held in the Chemical Lecture Theatre of the University.

SOUTH WALES.

Saturday, February 13th, 1943, at 3 p.m.

Lecture on "The Reducibility of Oxides and Sulphides in the Extraction of Metals," by Dr. H. J. T. Ellingham. Joint Meeting with the University College of Swansea Chemical Society.

PROCEEDINGS

OF THE

CHEMICAL SOCIETY.

Minutes of a SCIENTIFIC MEETING

held at Burlington House, W. 1, on Thursday, January 21st, 1943, at 2.30 p.m.

The PRESIDENT, DR. W. H. MILLS, M.A., F.R.S., was in the Chair, and welcomed the visitors present.

FORMAL ADMISSION OF FELLOWS.

The following were formally admitted Fellows of the Chemical Society : John C. McGowan, Sidney S. Berg, J. O'Mara-Bockris, J. D. Hamer, I. Dostrovsky, W. M. Wolf, A. G. Catchpole, O. T. Baldwin, L. L. Katan, and J. Rabinovitch.

SCIENTIFIC COMMUNICATIONS.

The following papers were read :

- "Substitution Reactions of *neo*Pentyl Halides," by I. DOSTROVSKY and E. D. HUGHES.
"The Mechanism of the Thermal Decomposition of Diacyl Peroxides in Solution in Organic Solvents,"
by A. E. OXFORD.
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OFFICIAL ANNOUNCEMENTS

DEATHS.

The Council regret to announce the deaths of the following Fellows :

	Elected.	Died.
Sir Bryce Chudleigh Burt	1905	January 2nd, 1943.
William French	1893	December 7th, 1942.
Charles John Dickenson Gair	1913	June 19th, 1941.
Frank William Harbord	1897	December 27th, 1942.

FEARED KILLED IN ACTION.

The Council regret to report that Pilot Sergeant Alan Nightingale, R.A.F., failed to return from air operations over Bremen on June 28th, 1942. He was appointed a junior member of the Society's staff in October, 1938.

CONGRATULATIONS.

The Council have sent their congratulations to Sir Alfred C. G. Egerton and Sir Jnanendra Chandra Ghosh on their receiving the honour of Knighthood.

ACKNOWLEDGMENTS.

The thanks of the Council have been conveyed to Mr. Thomas R. Cowie for a contribution of £60 to mark the completion of his 60 years of Fellowship; also to Mr. F. C. Smith for a contribution to the Publications Fund and to Dr. M. M. T. Plant and Mr. W. B. Saville for presenting publications of the Society.

REPORT OF COUNCIL AND STATEMENTS OF ACCOUNTS FOR 1942.

As the Report of Council and Statements of Accounts appear in full in the *Journal* for April each year, the Council have decided, owing to the necessity for conserving paper, not to circulate the Report of Council and Statements of Accounts for 1942 to Fellows. Copies, however, will be available at the Annual General Meeting, and to any Fellow who makes application to the General Secretary after March 12th.

PUBLICATIONS FOR JANUARY.

In order to save delay, Fellows will receive the same publications in January as they had in December. Adjustments consequent upon any instructions received from Fellows for 1943 will be made when issuing the publications for February.

VACANCIES ON COUNCIL.

The names of the members of Council who retire at the next Annual General Meeting are as follows :

Vice-Presidents who have not filled the office of President :

Professor C. N. HINSHELWOOD and Professor J. L. SIMONSEN.

Elected Ordinary Members of Council :

Constituency I (South-East England), Dr. F. G. MANN, Dr. S. G. P. PLANT, and Dr. G. S. WHITBY.

Constituency III (North-West England, North Wales, and the Isle of Man), Professor T. P. HILDITCH.

Constituency V (Scotland), Dr. J. D. M. ROSS.

The above are ineligible for election to the same office until after the lapse of one year, except Dr. J. D. M. ROSS, who was appointed in June to fill, until the next Annual General Meeting, the vacancy caused by the retirement of Professor G. F. MARRIAN owing to change of residence. Dr. H. J. T. ELLINGHAM, who was co-opted as an additional Ordinary Member of Council in April 1942, also retires, and is eligible for election as an Ordinary Member of Council.

NOTICE is hereby given that in accordance with the Bye-Laws the following vacant places in the Council fall due to be filled at the Annual General Meeting to be held in London on Thursday, 25th March, 1943 :

Vice-Presidents who have not filled the office of President *Two vacancies.*

Elected Ordinary Members of Council :

Constituency I (South-East England) *Three vacancies.*

„ **III** (North-West England, North Wales, and the Isle of Man) *One vacancy.*

„ **V** (Scotland) *One vacancy.*

Nominations by Fellows for the office of Vice-President may be made in writing **signed by at least twenty Fellows.**

Fellows resident in a constituency may nominate any Fellow resident in that constituency for election to the Council to fill a vacancy among Elected Ordinary Members of Council allotted to that Constituency. Every such nomination must be in writing **signed by at least fifteen Fellows resident in that constituency.**

Every nomination must relate to one vacant place only, and must be accompanied by a signed declaration by the nominee that he is willing to accept office, if elected.

All nominations must be received by the Honorary Secretaries at the Society's Rooms **not later than first post on Monday, the 15th February, 1943.**

Forms of nomination can be obtained on application to the General Secretary. Applicants should state whether the form required is for a Vice-President or for an Elected Ordinary Member of Council.

FELLOWSHIP.

The following 53 candidates were elected Fellows of the Society on the 21st January, 1943 :

Michael Carr Ashworth.	Stuart Craigie Glass.	Robert Lindley Murray.
Arnold Audsley.	Frank Greenaway.	William George Overend.
Peter Frederick Barker.	Peter Gerhard Arthur Fritz	Douglas Hiley Owen.
Frank Brierley.	Gugenheim.	Frederic Ross Patterson.
Kenneth Johnson Brookfield.	Charles Francois Gysin.	George Gilmour Phillip.
Fred Brown.	David Alan Hall.	Julian Deveron Redmill.
Eric Sydney Buckley.	Lionel Louis Hantman.	Joshua Saper.
Alastair Campbell.	Arthur John Harrison.	Paul Slansky.
Albert Robert Carr.	David Ernest Hathway.	Ronald Henry Smith.
Anthony Arthur Leonard Challis.	Ronald William Hoff.	James Carruthers Thompson.
Francis Richard Charlton.	John Edward Hopkins.	James Hedley Turnbull.
Bernard Michael Cook.	Herbert Lewis Hutton.	Leslie Gordon Lovett Unstead-Joss.
Edmund Theodore Crisp.	John Edward Jacques.	Robert Ramsay Veitch.
Nina Magdalena Czczowiczka.	Sybil Pauline James.	Ronald Charles Watkins.
George William Driver.	Charles Kemball.	Hubert Richard Watson.
Edward Frederick Emley.	Charles Latham.	Basil Charles Leicester Weedon.
Cyril John Fairlam.	Norman Legg.	Leslie Victor West.
Desmond Geoffrey Ivins Felton.	Norman Lindop.	Robert Wilson.

LIST OF APPLICATIONS FOR FELLOWSHIP.

(*Fellows wishing to lodge objections to the election of these candidates should communicate with the Honorary Secretaries not later than Monday, 1st March, 1943. Such objections will be treated as confidential. The forms of application are displayed in the Library.*)

- Acland, Lauchlin Henry Dyke**, B.A.Hons. (Oxon.), A.I.C. British. Fullers' Earth Union, Copyhold Works, Redhill. Technical and general personal assistant to Managing Director. *Signed by* : R. E. Slade, R. M. Winter, A. Proven.
- Angell, Frederick George**, B.Sc. and Ph.D. (Birm.), F.I.C. British. 37, Crayke Road, Stockton-on-Tees. Analytical Chemist. *Signed by* : H. N. Wilson, M. P. Applebey, A. J. Prince.
- Antrobus, Lionel Philip**. British. Levenot, Charcoal Road, Bowdon. Principal and Manager of Messrs. James Briggs & Sons, manufacturers of heavy chemicals. *Signed by* : G. Baddeley, R. F. Garwood, Thornton Scott.
- Archer, Henry Robertson**. Graduate Member of the Institution of Chemical Engineers, Member of the British Association of Chemists. British. Gt. Burgh, Epsom. Industrial Research Chemist. *Signed by* : C. B. Maddocks, H. M. Stanley, J. G. Maltby.
- ***Barker, Leslie**, Northern Universities' Matriculation and Higher School Certificates. British. 70, Victoria Road, Morley, Leeds. 3rd year Student in Honours Chemistry at Leeds University. *Signed by* : J. W. Baker, W. A. Wightman, Alan Pollard.
- ***Brown, Desmond Joseph**, B.Sc.Hons. (Sydney). Australian. 7, Agnes Street, Strathfield, N.S.W. Commonwealth Research Scholar. *Signed by* : J. C. Earl, C. E. Fawsitt, Thomas Iredale.
- Brown, Frederick Stanley**, B.Sc. and Ph.D. (Wales), A.I.C. British. 26, Marriott Road, Coventry. Research Chemist (Plastics). *Signed by* : H. Paul, W. H. Glover, Ernest N. Johnson.
- ***Brown, John Trevor Garnet**, B.Sc.Hons. (Wales). British. 60, Holyhead Road, Bangor. Research Student at University College of North Wales, Bangor. *Signed by* : J. L. Simonsen, O. L. Brady, W. Rogie Angus, G. R. Ramage.
- Burnham, William Ritchie**, M.Sc. and Ph.D. (Dun.). British. 77, Horn Lane, Woodford Green. Lecturer in Chemistry, West Ham Municipal College, Stratford, E. 15. *Signed by* : R. F. Bromley, F. L. Allen, E. A. Rudge.
- Burns, David**, B.Sc.Hons. (Lond.). British. 26, Quantock Gardens, N.W. 2. Works Manager, Chemical Engineering Works. *Signed by* : B. Ellis, T. McLachlan, A. Krajckeman.
- Clarke, Eustace George Coverley**, B.A. (Oxon.), Scholar of Lincoln College, Oxford, 1923—6. British. Jersey Farm, Kingwood Common, Henley-on-Thames. Head of Chemistry Division, Royal Veterinary College. *Signed by* : H. Bassett, D. Roy Maxted, Thomas H. Goodwin.
- Clent, John Howard**, M.P.S. (Lond.). English. Threeways, Trees Road, Mount Merrion, County Dublin. Works Chemist. *Signed by* : H. Humphreys Jones, Kenneth C. Bailey, Thos. J. Nolan.
- Collins, John Henry**, B.Sc.Hons. (L'pool), A.I.C. British. Telnes, Burma Road, Forest Green, Nailsworth. Chief Chemist, Erinoid Ltd. *Signed by* : Robert Dodd, E. M. Williams, A. McGookin.
- ***Crick, Robert George Denton**, B.Sc. (Lond.). British. 44, Toynbee Road, W. Wimbledon, S.W. 20. Research Work in Industry. *Signed by* : E. D. Hughes, C. K. Ingold, Henry Terrey.
- Crossley, Harold**, A.I.C., A.M.C.T. British. 16, Broad Green Road, Liverpool, 14. Industrial Chemist. *Signed by* : E. J. Bond, J. V. Loach, R. A. Morton, R. T. Williams.
- Dawe, Geoffrey Arthur**, B.Sc. (Lond.). British. 30, Emerson Court, Hill Road, Wimbledon, S.W. 19. Chemist to Messrs. Samuel Jones & Co. *Signed by* : William N. Bacon, R. Hume Purdie, James M. Faulds.
- Dewdney, Frank George**. English. 181, Charlton Road, Kenton. Works Chemist. *Signed by* : E. T. Neathercoat, J. D. Cohen, S. G. Stevenson.
- Dodgson, Thomas**, B.Sc.(Hons.), A.I.C. British. 94, Melton Road, West Bridgford, Nottingham. Works Chemist. *Signed by* : W. C. M. Lewis, T. P. Hilditch, R. A. Morton.
- ***Elias, Peter Stefan**. Student, London University, 1st final year. German. 1, Galata Road, Barnes, S.W. 13. Laboratory Assistant. *Signed by* : Hubert H. Chambers, E. F. Mactaggart, L. M. Mundy.
- ***Elks, Joseph**, B.Sc. and Ph.D. (Lond.), D.I.C., A.R.C.S., A.I.C. British. Chemical Research Department, Glaxo Laboratories, Ltd., Greenford. Research Chemist. *Signed by* : F. A. Robinson, B. Arthur Hems, D. F. Elliott.
- Forber, Edward Stanley**. 5 years course at St. Helens Technical College and 23 years experience in Industry as Chemist, Control Chemist and Manager. British. 291, Blackburn Road, Oswaldtwistle. Assistant Works Manager and Chief Control Chemist with Fine Chemical Manufacturer. *Signed by* : Wesley Cocker, D. G. Turner, Cyril Lipman.
- Foster, Clifford Kitchener**, B.Sc.Hons. and Ph.D. (Lond.), A.R.C.S., A.I.C. 4 years post-graduate research experience. British. 1, Heath Grove, Alexandra Road, Pudsey, Leeds. Research and Plant Control Chemist. *Signed by* : Herbert Henry Hodgson, B. D. W. Luff, E. T. Williams.
- ***Fox, Solly**, B.Pharm. (Lond.). British. 191, High Road, Ilford. R.A.M.C. Attached to Laboratory, Military Hospital (Head Injuries). *Signed by* : Julius N. Ashley, S. S. Berg, H. J. Barber.
- Gee, Geoffrey**, M.Sc. (Manc.), Ph.D. (Cantab.), A.I.C. British. 48, Tewin Road, Welwyn Garden City. Senior Physical Chemist. *Signed by* : E. H. Farmer, J. I. Cunneen, G. F. Bloomfield.
- Geller, Norbert**, Ph.D. (Vienna). Austrian. 14, Kellett Lane, Lower Wortley, Leeds, 12. Works Chemist. *Signed by* : J. W. Baker, M. Polanyi, Thomas Mann.
- Goll, John Raymond**, A.I.C. British. Kenmure, Murray Street, Renfrew. Shift Chemist in Government Department. *Signed by* : Eric J. Holland, A. E. Findley, R. R. Butler.
- ***Goodman, Isaac**, InterB.Sc. (Lond.), Diploma and Associateship, Royal Technical College, Salford. British. 46, Ravalld Street, Salford, 3. Student of Chemistry at Royal Technical College, Salford. *Signed by* : John Graymore, Ernest Tidd, J. R. Walmsley.
- Gow, Robert John**. Higher National Certificate in Chemistry. British. Brook Cottage, Chapel Lane, Rainhill. Laboratory Assistant, Imperial Chemical Industries, Ltd. *Signed by* : J. F. Sumner, J. F. Jackson, F. E. Rymill.
- Gratton, Gerald**, M.Sc. (Wales), A.I.C. British. Flatts of Cargen, New Abbey Road, Dumfries. Analytical Chemist to I.C.I., Ltd. *Signed by* : V. C. E. Burnop, E. W. Lambert, J. L. Simonsen, G. R. Ramage.

- *Greene-Kelly, Ronald Gordon Hanns.** Intermediate Science. British. 32, New House Park, St. Albans. Undergraduate at Queen Mary College (London University). *Signed by* : J. R. Partington, H. D. K. Drew, W. H. Patterson.
- *Harrison, Fred Lloyd,** B.Sc.Hons. (Sydney). Australian. P.O. Box 13. Hay, N.S.W. Demonstrator in Organic Chemistry. *Signed by* : J. C. Earle, C. E. Fawcitt, Thomas Iredeale.
- Hart, Stephen John,** B.Sc.Hons. (Lond.), A.I.C. British. 29, Edna Street, Battersea, S.W. 11. Technical Research Chemist. *Signed by* : J. J. Fox, R. Leslie Collett, B. A. Ellis.
- Hofton, James,** M.A. and Ph.D. (Cantab.). English. 17, Bakers Lane, Streetly, Sutton Coldfield. Development Manager to British Industrial Plastics, Ltd. *Signed by* : William Blakey, R. G. W. Norrish, Eric K. Rideal.
- *Hogben, Iris Ada,** B.Sc. (Lond.). British. 13, Bank Road, Crumpsall, Manchester, 8. Research Chemist. *Signed by* : W. A. Sexton, W. H. Davies, A. W. Baldwin.
- Hopkins, Donald Percy,** B.Sc.Hons. (Lond.), A.I.C. British. Tennyson House, West End, Clevedon. Works Chemist and Production Manager to Fertiliser Manufacturers. *Signed by* : A. L. Bacharach, R. Leslie Collett, F. P. Dunn.
- Hughes, Ellis,** B.Sc. (Wales), A.I.C. British. 17, Danesway, Prestwich, Manchester. Technical Chemist. *Signed by* : R. Fraser Thomson, E. H. Rodd, S. Ellingworth.
- Hurt, Norman Albert,** A.M.C.T., F.I.C. British. 7, Cliff Avenue, Loughborough. Analytical Chemist. *Signed by* : Harold Webber, G. M. Dyson, W. S. Stevens.
- *Kahn, Hans Jacob,** B.Sc. (Lond.). Formerly German. 48, Randolph Avenue, W. 9. Works Chemist. *Signed by* : J. R. Partington, W. H. Patterson, D. Mess.
- Kerlogue, Robert Henry,** B.Sc. and Ph.D. (Lond.), A.I.C. British. Cestria, Fatfield, Washington. Research Divisional Manager. *Signed by* : D. J. G. Ives, H. L. Riley, J. S. F. Gard.
- Lane, Edward Sydney,** B.Sc.Hons. (Lond.), A.I.C. British. c/o Elm Villa, Lambs Lane, Spencers Wood, Reading. Chemist. Assistant to Messrs. O. W. Roskill, Consulting Chemist. *Signed by* : K. R. Webb, Ishbel G. M. Campbell, N. K. Adam.
- Liddiard, Percival Donald,** B.Sc. (Lond.), A.I.C. British. 19, Presburg Road, New Malden. Assistant Director, Technical Research and Chief Chemist. *Signed by* : J. R. Nicholls, H. Baines, R. Leslie Collett.
- *Macdonald, Eric,** B.Sc.Hons. (Wales). British. 60, Holyhead Road, Bangor. Research Student at University College of North Wales, Bangor. *Signed by* : J. L. Simonsen, G. R. Ramage, O. L. Brady, W. Rogie Angus.
- *McLeavy, Gordon.** British. 36, Staunburn Drive, Harrogate Road, Leeds, 7. Student, Leeds University. *Signed by* : R. Whytlaw-Gray, H. Taylor, Alan Pollard, J. Colvin.
- Mandeville, Desmond Christopher,** B.A.Hons. (Cantab.), A.I.C., A.M.I.Chem.E. British. Quarry Edge, Cookham Dene. Works Chief Chemist. *Signed by* : J. J. Fox, R. Leslie Collett, B. A. Ellis.
- Maplethorpe, Cyril Wheatley,** F.I.C., Ph.C., A.M.I.Chem.E. British. Works Manager to Allen & Hanburys, Ltd. *Signed by* : Norman Evers, Wilfred H. Linnell, T. E. Wallis.
- *Marrian, Denis Haigh,** B.Sc.Hons. (Manc.). British. 54, Booths Hill Road, Lymm, Warrington. Research Student in Organic Chemistry. *Signed by* : H. T. Openshaw, A. R. Todd, F. S. Spring.
- Martin, Thomas Hamilton,** M.Sc. (Manitoba), A.I.C. British. c/o Anglo Iranian Oil Co., Ltd., Masjid-i-Sulaiman, Iran. Chemist. *Signed by* : J. J. Fox, Robert H. Pickard, R. Leslie Collett.
- Mills, Eric William,** B.Sc.Hons. (L'pool), A.I.C. British. 649, Queen's Drive, Stoneycroft, Liverpool, 13. Research Chemist, B.I. Cables, Ltd. *Signed by* : Francis W. Kay, A. McGookin, R. A. Morton.
- Mitchell, Sidney Charles,** B.Sc. (Lond.), A.I.C. British. 38, Elmwood, Welwyn Garden City. Works Chemist. *Signed by* : F. S. Spring, D. E. Seymour, C. W. Picard.
- Mitchell, Stanley Cecil,** B.Sc.Hons. (Lond.), A.I.C. British. Inglebank, Oakleigh Road, Clayton, Bradford. Metallurgical Analyst. *Signed by* : H. I. Stonehill, R. M. Barrer, A. Jaffe.
- Morley, Arthur Milnes,** M.Sc.Tech. and Ph.D. (Manc.), A.I.C. British. 158, Oldham Road, Miles Platting, Manchester, 10. Works Chemist and Technical Works Manager. *Signed by* : John K. Wood, O. Rhys Howell, Thomas K. Walker.
- Nicholson, John,** B.Sc. (Lond.), A.I.C. British. White Lodge, Lound, Nr. Retford. Chemist at a Factory. *Signed by* : L. A. Downing, S. Gabriel, H. C. Gull.
- Palmer, Henry Norman Brecknock,** Member, Institute of Labour Management; Member Works Management Association; 1st Place Practical Chemistry, City of London College, 1921; Member Society of Chemical Industry (over 20 years); Courses in Timber Technology (Liverpool University), Oils, fats, waxes (City of London College). British. 19, Ailesbury Road, Ballsbridge, Dublin. Director in charge of Production and Research. *Signed by* : Thomas J. Nolan, A. G. G. Leonard, T. S. Wheeler.
- Pausacker, Kenneth Henry,** B.Sc. (Melbourne). Australian. 54, Bendigo Street, Prahran, S. 1, Melbourne. Chemist. *Signed by* : J. S. Anderson, E. J. Hartung, W. Davies.
- Ramsden, Cyril Edward,** Vice-President, Society of Glass Technology, Member Glass Research Delegacy. Published papers in *Trans. Ceramic Soc.* British. Park Lodge, Stone. Managing Director, C. E. Ramsden & Co., Ltd. *Signed by* : W. E. S. Turner, C. J. Peddle, A. Cousen.
- *Reid, Sarah Elizabeth,** M.Sc. (Q.U.B.). British. 1, Carloon Road, Wythnshawe, Manchester. Research Chemist. *Signed by* : E. H. Rodd, F. S. Fowkes, E. G. Parry.
- *Richardson, Dora Nellie,** B.Sc. (Lond.). British. 13, Bank Road, Crumpsall, Manchester, 8. Research Chemist to I.C.I. (Dyestuffs), Ltd. *Signed by* : F. H. S. Curd, H. C. Carrington, W. R. Boon.
- *Ritson, David Mark.** British. 77, Hillfield Court, Belsize Avenue, N.W. 3. Science Student (Oxford). *Signed by* : A. S. Russell, J. C. Smith, S. G. P. Plant.
- Roffey, Frank,** B.Sc. (Lond.), Ph.D. (Bristol), F.I.C. British. 56, Dartmouth Court, S.E. 10. Civil Servant. *Signed by* : J. J. Fox, I. M. Heilbron, A. King.
- Rumens, Murray James,** B.Sc.Hons. (Lond.), A.I.C. British. Tintern, Thistlebarrow Road, Salisbury. Research Chemist. *Signed by* : K. D. Wadsworth, H. N. Rydon, S. A. Mumford.
- Sabel, William,** B.Sc. (Lond.), A.I.C. British. 117, Willesden Lane, N.W. 6. Research Chemist. *Signed by* : Harry James Baber, Julius N. Ashley, G. Newbery.
- Sammons, Herbert George,** B.Sc. and Ph.D. (Birm.). British. Ivyhurst, Upper Longdon, Rugeley. Biochemist in Medical School (Pharmacology Dept.), The University, Birmingham. *Signed by* : Stanley Peat, M. Stacey, W. V. Thorpe.

- Schwarzwald, Konrad**, Ph.D. (Glas.), Examination equivalent to B.Sc., Vienna University, 1938. 17 months industrial experience. Austrian. 5, De Vere Gardens, Ilford. Research Chemist to Paint, Varnish and Lacquer Manufacturers. *Signed by* : Edward M. Melville, Ethel Bidwell, Francis Schollick.
- Sinclair, Kathleen Joyce**. Knowledge gained through 24 years employment in chemical intelligence work. British. I.C.I. Jealott's Hill Research Station, Bracknell. Agricultural Research Worker. *Signed by* : S. J. Watson, John C. McGowan, J. H. Birkinshaw.
- Smith, Joseph, M.A.** (Cantab.). British. 493, Stanton Road, Burton-on-Trent. Managing Director, Hallams, Ltd. *Signed by* : A. Slator, H. E. Dryden, E. J. Leeming.
- ***Souter, Robert**, B.Sc.Hons. (Lond.), A.I.C. British. 17, Lyndhurst Grove, Chaddesden, Derby. Analytical and Research Chemist. *Signed by* : N. Ferry, W. Hunter, S. A. Miller.
- Sutcliffe, Frank Kenneth**, M.Sc. (Manc.). British. 774, Rochdale Road, Walsden, Todmorden. Pharmaceutical Research Chemist. *Signed by* : I. E. Balaban, W. Osborn, H. Stromberg.
- Sutcliffe, Gordon Roy**, Inter.B.Sc. (Lond.), A.I.C. British. 7, Ellesmere Road South, Chorlton-cum-Hardy, Manchester, 21. Analytical Chemist. *Signed by* : D. R. A. Davies, J. Todd, L. J. Ward.
- ***Unsworth, Alfred Kenneth**, B.Sc. (Lond.). British. 211, Hyde Park Road, Leeds, 6. Assistant Chemist in the Chemical Inspection Department, Ministry of Supply. *Signed by* : J. E. B. Randles, A. S. Nickelson, F. S. Dainton.
- Weightman, Peter William**, Inter.B.Sc. (Lond.). British. c/o Mrs. Wade, 1, Whitby Road, Fallowfield, Manchester, 14. Analytical Chemist. *Signed by* : R. Tully Turner, D. R. A. Davies, L. J. Ward.
- Whewell, Charles Smalley**, B.Sc.Hons. and Ph.D., Diploma in Biology (Leeds). British. Department of Textile Industries, The University, Leeds. Lecturer in Cloth Finishing. *Signed by* : E. Rothstein, G. F. Smith, A. T. Peters.
- Whitby, Lawrence**, M.Sc. and Ph.D. (Lond.), F.I.C. British. Lingmell, Dorney Reach, Maidenhead. Research Chemist. *Signed by* : W. H. J. Vernon, Guy D. Bengough, L. A. Jordan.
- White, Henry Lewis**, Member of The British Association of Chemists. British. 81, Bexley Lane, Sidcup. Analytical and Research Chemist. *Signed by* : S. P. Schotz, Charles A. Wrench, George W. Ferguson.
- Wilkinson, Peter Geden**, B.Sc. (Lond.). British. The Anchor Brewery, Mile End Road, E. 1. Brewer's Chemist. *Signed by* : A. J. Allmand, D. W. G. Style, J. A. Burns.
- Wilson, Hector Muir Dawson**, A.I.C. British. 32, Bradda Avenue, Brimside, Rutherglen. Chemist, Strathclyde Paint Co., Ltd. *Signed by* : I. Vance Hopper, A. B. Crawford, F. J. Wilson.
- Wolfner, Wilhelm**, B.Sc. (College for Technical Chemistry, Vienna). Specialist in the Fermentation Industries. Austrian. 48, Valley Road, Ipswich. Production Manager, British Fermentation Products, Ltd. *Signed by* : Arthur R. Lockwood, R. L. Edwards, F. C. Dyche-Teague.
- Wood, William Stanley**, B.Sc. (Lond.), F.I.C. British. Trevesa, Grasmere Avenue, Harpenden. Research Chemist. Deputy Chief Chemist, Messrs. B. Laporte, Ltd. *Signed by* : V. W. Slater, A. N. C. Bennett, H. P. Buttrick.
- Wragg, William Robert**, B.Sc. (Lond.). British. 68, Westpole Avenue, Cockfosters, Barnet. Research Chemist. *Signed by* : J. R. Partington, V. A. Petrow, F. Wild.
- Wright, Gilbert Bruce**. Training in Chemistry at Carlisle Technical College. Thirteen year's experience as Chemist in Industry. British. 34, Craigmount Terrace, Corstorphine, Edinburgh, 12. Assistant to Chief Chemist, Flour & Cereal Dept., Scottish Co-operative Wholesale Society, Ltd. *Signed by* : E. G. V. Percival, Jas. Sword, James Sandilands.

UNDER SPECIAL PROVISION APPERTAINING TO CANDIDATES RESIDENT ABROAD.

- ***De Ment, Jack**. American. 1907, South East 48th Avenue, Portland, Oregon. Research Chemist, The Mineralogist Magazine. *Signed by* : F. E. Twining.
- Long, James Scott**, Ch.E. and M.S. (Lehigh), Ph.D. (Johns Hopkins). Professor from graduation, 1934; Chemical Consultant from Chemical Director, 1934-date. American. The Weissinger-Gaulbert Apts., Broadway, Louisville, Ky. Chemical Director. Devoe & Reynolds Co., Inc. *Signed by* : Foster Dee Snell.
- Rao, Mannigay Umanath**, M.Sc. (Allahabad), A.I.C. British. Shanti Nivas, Sardarpura, Jodhpur, Rajputana. Chemist to The Government of Jodhpur. *Signed by* : K. P. Chatterjee.
- Rigg, Sir Theodore**, K.B.E., M.Sc. (N.Z.), M.A. (Cantab.), F.I.C., F.R.S. (N.Z.). British. Cawthron Institute, Nelson, N.Z. Director, Cawthron Institute. *Signed by* : Henry Oscar Askew, Thomas H. Easterfield.

* Reduced annual subscription.

PAPERS RECEIVED.

List of papers received between December 17th, 1942, and January 22nd, 1943. (This list does not include the titles of papers which have been read at a Scientific Meeting or which have appeared in the *Journal*.)

- "The preparation and reactions of *N*-nitrosoaceto-1-naphthalide. With a note on the mechanism of the diazo-coupling reaction." By H. H. HODGSON and E. MARSDEN.
- "The monoreduction of dinitronaphthalenes in acid solution, and the monoreduction of 1:5- and 1:6-dinitronaphthalene by aqueous sodium sulphide." By H. H. HODGSON and H. S. TURNER.
- "Studies on indene derivatives. Part II. Triketohydrindene." By A. SCHÖNBERG and R. MOUBACHER.
- "Qualitative semimicro-analysis, with reference to Noyes and Bray's system. The aluminium group." By (MISS) C. C. MILLER.
- "The isomerism of cyclohexane derivatives." By R. F. HUNTER.

- “Bromination of diphenylalkanes and the preparation of some stilbene derivatives. Part II. $\beta\gamma$ -Diphenyl-*n*-butane.” By H. J. BARBER, R. SLACK, and A. M. WOOLMAN.
- “Interchange of hydrogen isotopes with complex salts. Part I. Kinetics of the interchange with the luteocobaltic complex.” By J. S. ANDERSON, H. V. A. BRISCOE, and N. L. SPOOR.
- “Interchange of hydrogen isotopes with complex salts. Part II. Kinetics of the interchange with platinumous and palladous tetrammines.” By J. S. ANDERSON, H. V. A. BRISCOE, L. W. COBB, and N. L. SPOOR.
- “The vapour pressure of metallic indium.” By J. S. ANDERSON.
- “Physico-chemical aspects of bacterial growth. Part VIII. Growth of *bact. lactis aërogenes* in media containing ammonium sulphate or various amino-acids.” By R. M. LODGE and C. N. HINSHELWOOD.
- “Physico-chemical aspects of bacterial growth. Part IX. The lag phase of *bact. lactis aërogenes*.” By R. M. LODGE and C. N. HINSHELWOOD.
- “Physico-chemical aspects of bacterial growth. Part X. Observations on the variability of growth rate of *bact. lactis aërogenes*.” By R. M. LODGE and C. N. HINSHELWOOD.
- “The effect of heat on mandelic acid.” By W. R. ANGUS and R. P. OWEN.
- “The stability of racemates. Mandelic acid and some of its derivatives.” By W. R. ANGUS and R. P. OWEN.
- “Aqueous solubilities of *r*- and *l*-mandelic acids and three hydroxy-*r*-mandelic acids.” By W. R. ANGUS and R. P. OWEN.
- “Some sulphonyl derivatives of amidines and imino-ethers.” By H. J. BARBER.
- “The tautomerism of benzoquinone-*p*-nitrosophenol systems. Part II. 3-Fluoro-4-nitrosophenol.” By H. H. HODGSON.
- “Note. 5-Ethoxy-4-nitrotoluene-2-sulphonic acid.” By C. BUCHANAN, J. D. LOUDON, and J. ROBERTSON.
- “Acyl migration in steroids.” By V. A. PETROW, O. ROSENHEIM, and W. W. STARLING.
- “The alkaloids of the seeds of *Delphinium elatum*, L.” By J. A. GOODSON.
- “The stereochemical relationships of the 9 : 10-oxidostearic acids and the 9 : 10-dihydroxystearic acids.” By D. ATHERTON and T. P. HILDITCH.
- “The action of alkalis upon substituted benzodioxins. Part II.” By H. IRVING and (in part) E. G. CURTIS.
- “Polarographic studies. Part II. Mould metabolites and related quinones.” By J. E. PAGE and F. A. ROBINSON.
- “Rubber, polyisoprenes and allied compounds. Part IV. The relative tendencies towards substitutive and additive reaction during chlorination.” By G. F. BLOOMFIELD.”
- “Molecular volume and structure. Parts V and VI.” By T. W. GIBLING.
- “Butylnaphthalenes and their derivatives. Part I. β -*tert*-Butylnaphthalene.” By N. G. BROMBY, A. T. PETERS, and F. M. ROWE.
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THE CHEMICAL SOCIETY

NOTICE OF FORTHCOMING SCIENTIFIC MEETINGS

IN LONDON.

Thursday, March 25th, 1943.

The Hundred and Second Annual General Meeting of the Chemical Society will be held at Burlington House, on Thursday, March 25th, 1943. At 11.30 a.m., the business portion will be held:

(a) To receive the Report of Council, together with Statement of Accounts and Balance Sheets for the year ended December 31st, 1942 (for reasons of economy this will not be circulated, but copies can be obtained from the General Secretary); (b) to declare the election of the Elected Ordinary Members of Council for Constituencies III (North-West England, North Wales and the Isle of Man), and V (Scotland); (c) to receive the report of the Scrutators on the ballot for Vice-Presidents (who have not filled the office of President) and of Elected Ordinary Members of Council for Constituency I (South-East England), and to declare the name of the Fellows duly elected; (d) to appoint Auditors for 1943.

At 12.45 for 1 p.m. Luncheon will be held at Stewart's Restaurant (corner of Piccadilly and Old Bond Street), and the price of the luncheon will be five shillings and sixpence (5s. 6d.) (not including gratuities).

At 2.30 p.m. The President, Dr. W. H. MILLS, M.A., F.R.S., will deliver his Presidential Address, entitled "Stereochemistry of Labile Compounds."

Thursday, April 15th, 1943, at 2.30 p.m.

Ninth Liversidge Lecture on "Magnetochemistry," by Professor S. Sugden, D.Sc., F.R.S.

MEETINGS OUTSIDE LONDON.

DUNDEE.

Thursday, April 15th, 1943, at 4.30 p.m.

Tilden Lecture, on "Recent Developments in the Theory of Reaction Kinetics in Solution," by Mr. R. P. Bell, M.A., B.Sc. To be held in the Chemistry Department of the University College.

LEEDS.

Tuesday, March 9th, 1943, at 5.15 p.m.

5.15 p.m. Exhibition of scientific films and apparatus.

6.0 p.m. Light refreshments.

6.30 p.m. Lecture on "The Synthesis of High Polymers," by Professor H. W. Melville, F.R.S.

Joint Meeting with the University of Leeds Chemical Society. To be held in the Chemistry Lecture Theatre of the University, Woodhouse Lane.

LIVERPOOL.

Friday, March 19th, 1943, at 6 p.m.

Lecture on "Trends of Agriculture in Relation to Nutrition," by Sir John Russell, O.B.E., D.Sc., F.R.S. Joint Meeting with the Liverpool Section and the Food Group of the Society of Chemical Industry. To be held at the Adelphi Hotel.

PROCEEDINGS

OF THE

CHEMICAL SOCIETY.

Minutes of a SCIENTIFIC MEETING

held at Burlington House, W. 1, on Thursday, February 18th, 1943, at 2.30 p.m.

The President, Dr. W. H. MILLS, M.A., F.R.S., was in the Chair, and welcomed the visitors present.

FORMAL ADMISSION OF FELLOWS.

The following were formally admitted Fellows of the Chemical Society :

Archibald G. Clement, Frank Greenaway, Werner David, J. D. Redmill, Chas. Latham, H. T. Openshaw, S. Wilkinson, and G. V. E. Thompson.

TILDEN LECTURE.

After a brief introduction, the PRESIDENT called on Professor J. M. Gulland to deliver his Tilden Lecture, entitled "Aspects of Nucleotide Chemistry."

A vote of thanks to the Lecturer, proposed by Dr. H. B. Watson, was carried with acclamation.

OFFICIAL ANNOUNCEMENTS

DEATHS.

The Council regret to announce the deaths of the following Fellows :

	Elected.	Died.
Doris Laura Fairchild	1941	November 6th, 1942
Stephen Archigenes Ionides	1901	January 27th, 1943
Ernest Wilson McClelland	1920	February 4th, 1943
Frank Sturdy Sinnatt	1902	January 27th, 1943
George Alfred Stokes	1911	January 23rd, 1943
Arthur Percy Strohmenger	1909	January 23rd, 1943
Raymond Taylor	1926	January 24th, 1943

CONGRATULATIONS.

The congratulations of the Council have been conveyed to the following Fellows who have completed 60 and 50 years of Fellowship.

60 years of Fellowship.

	Elected.
Alfred H. Jackson	February 1st, 1883
Frederick W. Richardson	" "
Ernest S. Spencer	" "
Thomas Turner	" "

50 years of Fellowship.

	Elected.
John E. Brockbank	February 16th, 1893
Samuel F. Dufton	" "
Wesley J. Lambert	" "
William E. Wheeler	" "

ACKNOWLEDGEMENTS.

The thanks of the Council have been conveyed to Mr. P. Appleyard, Mr. P. K. Dutt, Prof. W. E. Garner, and Mr. G. Watson Young for contributions to the Publications Fund, and to Dr. A. F. Campbell, Mr. M. B. Donald, and Dr. R. Raper for presenting publications of the Society.

NOMINATIONS FOR VACANT PLACES ON THE COUNCIL.

The following is the list of the nominations for the new Council :

Vice-Presidents who have not filled the Office of President. (Two vacancies.)

SIR ALFRED EGERTON.
PROF. C. K. INGOLD.

ELECTED ORDINARY MEMBERS OF COUNCIL.**Constituency I. S.E. England. (Three vacancies.)**

DR. S. H. HARPER. (Southampton.)
DR. J. C. SMITH. (Oxford.)
DR. G. B. B. M. SUTHERLAND. (Cambridge.)
DR. W. H. J. VERNON. (Teddington.)

Constituency III. N.W. England, N. Wales and the Isle of Man. (One vacancy.)

DR. R. A. MORTON. (Liverpool.)

Constituency V. Scotland. (One vacancy.)

DR. J. D. M. ROSS. (Dundee.)

ELECTION OF SCRUTATORS.

Messrs. E. A. Evans and F. H. Lowe have been appointed Scrutators to examine the voting papers for Vice-Presidents (who have not filled the office of President) and for Elected Ordinary Members of Council for Constituency I.

LIST OF APPLICATIONS FOR FELLOWSHIP

(*Fellows wishing to lodge objections to the election of these candidates should communicate with the Honorary Secretaries not later than Monday, April 12th, 1943. Such objections will be treated as confidential. The forms of application are displayed in the Library.*)

- Adamson, Donald Malcolm**, F.I.C. British. 49, Brownhill Road, Catford, S.E. 6. Chemist. *Signed by* : D. C. Garratt, Norman Evers, R. Leslie Collett.
- Adamson, Peter Swainston**, M.Sc. (Wales). British. Heath House, Ardleigh, Nr. Colchester. Research Chemist in Plastics Development Department of Messrs. B. X. Plastics, Ltd. *Signed by* : Foster Sproxton, Geoffrey Swann, L. W. Turner.
- ***Allen, David George**, Inter. and Subsid. B.Sc. (Lond.). British. 43, Coombe Gardens, New Malden. Assistant chemist and part-time student reading for Final B.Sc. special in Chemistry at Birkbeck College, University of London. *Signed by* : A. Prideaux Davson, D. J. G. Ives, George W. Ferguson.
- Bailey, Arthur John Marson**, B.Sc.Hons. (Lond.), A.I.C., M.P.S. British. 3, East Road, Maidenhead. Food Research Chemist. *Signed by* : H. J. Spriggs, Percy C. C. Isherwood, H. W. Vernon.
- Beard, Sydney George**, A.I.C. British. 19, Regarth Avenue, Romford. Research Chemist, Messrs. Roneo, Ltd. *Signed by* : G. J. Trower, J. W. B. Price, G. V. E. Thompson.
- Bennett, William Herbert**, M.Sc. (Lond.), F.I.C. British. 2, Friary Close, Torrington Park, N. 12. Chemist, Imperial Institute. *Signed by* : George W. McCrear, R. J. Cole, H. Wells.
- ***Bentley, Herbert Ripley**, Scholar of Lincoln College, Oxford. Reading for B.A. (Hons.) in Chemistry. British. 6, Lower Rushton Road, Thornbury, Bradford. Undergraduate. *Signed by* : F. M. Brewer, Ronald P. Bell, N. V. Sidgwick, R. M. Lodge.
- Bide, Austin Ernest**, B.Sc. (Lond.), A.I.C. British. 10, Connell Crescent, Western Avenue, Ealing, W. 5. Research Chemist. *Signed by* : E. Lester Smith, F. A. Robinson, R. Leslie Collett.
- Brotherton, Charles Frederick Ratcliffe**. British. The Hall, Kirkham Abbey, York. Chairman of Brotherton & Co., Ltd. *Signed by* : Frederick Challenger, J. W. Baker, Frederick M. Rowe, R. Whytlaw-Gray.
- ***Bywater, Stanley**, Higher School Certificate. English. Allencroft House, Birkenshaw, Bradford. Student, 3rd year Hons. Chem., University of Leeds. *Signed by* : J. W. Baker, Alan Pollard, H. Taylor.
- ***Cook, Harold Gilbert**, Pt. II. Nat. Sci. Tripos (Class 2, division 1), Cambridge. Degree not to be awarded until June, 1943. Scholar, King's College, Cambridge. Class I in Prelim. Pt. I of the Nat. Sci. Tripos, June, 1941. British. 129, Hemingford Road, Cambridge. Research Student. *Signed by* : F. S. Dainton, H. McCombie, B. C. Saunders, F. Wild.
- Cooper, William**, B.Sc. (Lond.), A.I.C. British. Dunrovin, 1, Hove Avenue, Newport. Works Chemist, British Aluminium Co. *Signed by* : James Sandilands, Robert G. M. Dakars, Vivian E. Davis.
- Davies, John Douglas**, A.I.C., Ph.C., M.P.S. British. 3, Prendergast Hill, Haverfordwest. Research Assistant. *Signed by* : H. B. Watson, D. P. Evans, W. D. Williams.
- Davis, Harold**, B.Sc. and Ph.D. (Lond.), A.I.C., Ph.C. British. 2, West Drive, Harrow Weald. Chief Pharmacist, University College Hospital and Lecturer in University College Hospital Medical School. *Signed by* : C. R. Harington, Rosalind Pitt-Rivers, A. Neuberger.
- ***Davis, Margaret Isabel**, B.Sc. (Lond.). British. 275a, Barlow Moor Road, Manchester, 21. Research Chemist. *Signed by* : E. H. Rodd, E. B. R. Prideaux, John C. Roberts, D. O. Jordan.

- Duke, John Reginald Claude**, B.Sc. (Lond.), A.I.C. English. Beechdale, Copsem Lane, Esher. Captain, K.R.R.C. (at present); otherwise, Chemist. *Signed by* : R. H. Griffith, W. Lewcock, W. J. Gooderham.
- Emblem, Harold Garton**, B.Sc.Hons. (L'pool), A.I.C. British. Netherley, 263, Marshalls Cross Roads, Sutton, St. Helens. Research Chemist. *Signed by* : William Doran, Francis W. Kay, R. A. Morton.
- Fastier, Frederick Noel**, M.Sc. (N.Z.). Three years experience in pharmacological research and organic syntheses. British. 25, Erin Street, Roslyn, Dunedin, N.Z. Research Assistant, Department of Medicine, Otago University. *Signed by* : F. G. Soper, M. V. Bryan King, S. N. Slater.
- Field, William Thomas**, B.Sc. (Lond.), F.I.C. British. 30, Ingleby Way, Wallington. Chief Chemist. *Signed by* : Thos. Macara, L. E. Campbell, C. L. Hinton.
- Flavell, William**, B.Sc. (Birm.), A.I.C. British. 2, Brook Street, Woodsetton, Dudley. Research Chemist. *Signed by* : W. J. R. Way, N. Ferry, F. Stanbridge.
- *Godfrey, Alan Crofton**, B.Sc. (Lond.), A.I.C. British. Welwyn Garden City. Research Chemist. *Signed by* : Paul Russell, Laurence M. Smith, J. M. Walter.
- Graham, William**, B.Sc.Hons. (Manc.), A.I.C. British. 80, Robin Hood Way, Greenford. Research Chemist. *Signed by* : A. R. Todd, F. A. Robinson, E. Lester Smith.
- Hadley, William Henry**, M.A. (Cantab.), F.I.C. British. Kinsley, 23, Denbury Avenue, Stockton Heath, Warrington. Chemist—Analytical and Research. *Signed by* : H. W. L. Phillips, T. G. Pearson, J. H. Dickin.
- *Hall, Alan Montague**, B.Sc.Hons. (Lond.). British. 64, Beaumont Leys Lane, Leicester. Industrial Chemist. *Signed by* : A. Pilgrim, H. L. Long, E. M. Stoddart.
- Hatton, John Percival**, M.Sc.Tech. (Manc.), A.I.C. British. 235, Brantingham Road, Chorlton-cum-Hardy, Manchester, 21. Works Chemist. *Signed by* : H. Swann, S. Coffey, H. W. Thompson.
- Heafield, Thomas Gilbert**, M.Sc. (Lond.), A.I.C. British. Mill House, Packington, Ashby-de-la-Zouch. Chemist at British Celanese. *Signed by* : L. Hunter, C. K. Tinkler, A. Hickling.
- Henderson, George Mann**, B.Sc.Hons. and Ph.D. (Edin.). Scottish. 6, Marton Avenue, Didsbury, Manchester, 20. Research Chemist. *Signed by* : B. J. Heywood, Jas. Buchanan, R. F. Goldstein.
- Hills, Henry William John**, B.Sc. and Ph.D. (Lond.), A.I.C. British. 58, Agecroft Road West, Prestwich, Manchester. Industrial Chemist. *Signed by* : William Muir, Norman Strafford, Ernest Chapman.
- Hollis, Charles Edward**, B.Sc. (Lond.), A.I.C. British. 324, Orphanage Road, Sutton Coldfield, Birmingham. Research Chemist. *Signed by* : J. J. Fox, H. K. Whalley, T. Kennaway.
- Holness, Harry**, B.Sc. (Leeds), A.I.C. British. 127, Wallwood Road, Leytonstone, E. 11. Senior Lecturer in Chemistry, S.W. Essex Technical College. *Signed by* : J. H. Wilkinson, R. W. Jukes, I. L. Finar.
- *Humphries, Derek William**, Inter. B.Sc. (Lond.). British. 49, Brunswick Road, Ealing, W. 5. Skilled Laboratory Assistant, Chemical Inspection Department, Ministry of Supply. *Signed by* : Florence M. Wood, J. R. Partington, H. D. K. Drew.
- Jack, Kenneth Henderson**, B.Sc.Hons. (Dun.), A.I.C., D.Th.P.T. British. 10, Kensington Gardens, North Shields. Demonstrator in Chemistry, King's College, Newcastle-upon-Tyne. *Signed by* : W. M. Madgin, H. L. Riley, G. R. Clemo.
- Jackman, Barbara Anne**, B.Sc.Hons. (Lond.), A.I.C. British. 2, Bishops Avenue, Bromley. Assistant Chemist at Messrs. J. Lyons & Co., Ltd. *Signed by* : Leslie H. Lampitt, E. B. Hughes, G. E. Forstner.
- *Jacobs, Barbara Rosamund**, B.Sc. (Lond.). British. 46, Leeside Crescent, Golders Green, N.W. 11. Chemist with I.C.I. (Dyestuffs), Ltd. At present working at the Courtauld Institute of Biochemistry. *Signed by* : George Alston Rowe, Philip V. Youle, E. H. Rodd, D. W. Stammers.
- Jacobs, Ridley Saul**, M.Sc. Tech. (Manc.), 17 years manufacture and research in Diazotype Photopapers. British. 2, Allington Road, N.W. 4. Managing Director of The N.I.G. Manufacturing Co., Ltd. *Signed by* : B. Mouat Jones, Frederick M. Rowe, Frank Lee Pyman.
- Jacobs, Stanley**, M.Sc. (Lond.), A.I.C. British. 124, Camberley House, Redhill Street, N.W. 1. Research Chemist. *Signed by* : G. W. Ellis, G. King, W. J. Elford.
- *James, Frederick Ernest**, Inter. B.Sc. (Lond.). British. 99, Lincoln Road, Forest Gate, E. 7. Analytical Chemist. *Signed by* : E. de Barry Barnett, C. G. Smith, Alfred T. French.
- Johnston, Albert Arthur**. English. 2, Cranfurd Rise, Maidenhead. Chief Chemist, Magnesium Castings and Products. *Signed by* : R. R. Butler, A. E. Findley, Wm. Cullen, Julian L. Baker.
- Johnstone, Sydney James**, O.B.E., B.Sc. (Lond.), F.I.C. British. 17, Clifford Road, New Barnet. Principal of the Mineral Resources Department, Imperial Institute. *Signed by* : David M. Freeland, A. L. Bacharach, Dorothy Jordan Lloyd, G. Roche Lynch, R. Leslie Collett.
- Jones, Fred**, Inter. B.Sc. (Lond.). British. 57, School Road, Moseley, Birmingham, 13. Chemist (Metallurgical), on loan from L.M.S. Railway Research Department. *Signed by* : John W. Gailer, W. J. Hickinbottom, S. D. Nicholas.
- *Jones, Gwilym Thomas**. British. Neuadd Reichel, Bangor. In final year of Honours Chemistry Course at the University College of North Wales, Bangor. *Signed by* : W. Rogie Angus, O. L. Brady, G. R. Ramage.
- Lewis, Clifford**, B.Sc. (Wales). British. 46, Mansel Street, Port Talbot. Industrial Chemist. *Signed by* : H. B. Watson, J. Ormston, D. P. Evans.
- Lewton-Brain, Norman**, Dip. in Chem. Eng., King's College, London, A.I.C., A.M.I.Chem.E. British. 20, Church Lane, Prestwich, Manchester. Research Chemical Engineer. *Signed by* : Ivan Harris, G. H. J. Neville, C. J. Bushrod.
- Marsden, Philip Sydney Stewart Forbes**, Inter.B.Sc. (Lond.). English. 7, Stanway Gardens, Acton, W. 3. Internal Student of the University of London. *Signed by* : J. C. Crocker, E. C. Pickering, F. H. Lowe.
- Martin, Geoffrey William**, A.I.C. British. 30, Birch Grove, Acton, W. 3. Chemist and Production Manager. *Signed by* : David M. Freeland, C. J. Amos, D. W. Kent-Jones.
- *Minkoff, Gabriel Joseph**, B.Sc.Hons. (Lond.), but not yet fulfilled residential qualifications. British. 153a, Ruden Way, Epsom Downs. Research Student at University College, London. *Signed by* : E. D. Hughes, H. G. Poole, C. K. Ingold.
- *Moore, John Royston**, B.Sc.Hons. (Manc.). British. 24, Lime Grove, Chorlton-cum-Hardy, Manchester. Plant Chemist. *Signed by* : A. R. Todd, H. T. Openshaw, J. Wardleworth.

- ***Noble, Dennis Alexander John**, Scholar of Lincoln College, Oxford, reading for B.A. (Hons.) in Chemistry. British. Cleveland House, Oakley Street, Shrewsbury. Undergraduate. *Signed by* : F. M. Brewer, Ronald P. Bell, N. V. Sidgwick, R. M. Lodge.
- Oswald, James Wilson**, A.I.C. British. 61, West Kensington Court, North End Road, W. 14. Chief Chemist. *Signed by* : R. G. Willcocks, J. A. V. Willis, S. K. Tweedy.
- Page, George Ronald**, B.Sc.Hons. (Lond.), A.I.C., Ph.C. British. 29, Fleet Street, Liverpool, 1. Manager, Evans Pharmaceutical Laboratories. *Signed by* : H. Humphreys Jones, H. L. Long, J. Williamson.
- Parkes, Edward Burdon**, M.Sc. (L'pool), F.I.C. British. 113, Redland Road, Bristol, 6. Director, Bristol Forensic Science Laboratory. *Signed by* : F. W. Rixon, W. E. Garner, E. L. Hirst, A. M. King, M. Taylor, T. Malkin, Chas. E. Clarkson.
- Philip, Norman Harold**, B.Sc. (Lond.), A.I.C. British. c/o The British Drug Houses, Ltd., Graham Street, N. 1. Works Control Chemist. *Signed by* : E. L. Cooper, K. J. Verrill, J. A. R. MacLean.
- Pratt, Norman Hill Philpott**, 5 years Pupil and Assistant to Mr. R. H. Ellis, F.I.C., F.C.S., City and County Analyst of Gloucester. 4 years Chemist to Messrs. Thames Milling Co. British. The Nook, New Road, Sharpness, Berkeley. Analytical Chemist to Messrs. Severn Mills, Ltd. *Signed by* : Rowland H. Ellis, F. E. Needs, E. L. Hirst.
- Price, Harold Idris**, B.Sc. and Ph.D. (L'pool). British. Shotwick Lodge, Great Saughall, Chester. Chief Chemist to a Works. *Signed by* : A. McGookin, Francis W. Kay, William Doran.
- ***Rae, William Duff**, B.Sc.Hons. (Aberd.). British. 101, Hilton Street, Aberdeen. Research Chemist. *Signed by* : Alex Findlay, R. B. Strathdee, T. Harold Reade, J. E. Humphries.
- ***Reed, Hugh Wilma Boulton**, Inter.B.Sc. British. Connaught Hall, Wessex Lane, Swaythling, Southampton. 1st year Special Chemistry Student, University College, Southampton. *Signed by* : N. K. Adam, S. H. Harper, Ishbel G. M. Campbell, William A. Bates, K. R. Webb.
- ***Reed, Rowland Ivor**, B.Sc. (Lond.). British. St. David's, 145, Tuffley Avenue, Gloucester. Research Student. *Signed by* : E. D. Hughes, C. K. Ingold, J. N. E. Day.
- Robertson, Walter Munro**, B.Sc.Hons. (Lond.), A.I.C. British. 123, Victoria Road, Tunstall, Stoke-on-Trent. Chief Chemist in Colliery Laboratory. *Signed by* : J. Newton Friend, J. Cooper Duff, W. Murray.
- Saville, George Walton**, B.A. and M.Sc. (Dub.), A.I.C. Irish. Dubross, Wexford. Metallurgical Chemist. *Signed by* : Kenneth C. Bailey, R. Leslie Collett, Emil A. Werner.
- Schofield, Frank**, B.Sc.Hons. (Leeds). British. 68, Burnley Road, Edenfield, Ramsbottom. Chemist (Shift Superintendent). *Signed by* : J. W. Baker, R. S. Bradley, R. Whytlaw-Gray, J. Colvin, M. G. Evans.
- Scott, Franklin Clermont**, B.Sc. (Lond.), A.I.C. British. 10a, Derby Road, Beeston. Analytical Chemist with Messrs. Boots Pure Drug Co. *Signed by* : W. F. Elvidge, A. D. Powell, H. Barnes.
- ***Shaw, Philip Malcolm**, B.A. (Cantab.). British. 56, Wallace Crescent, Brighton, Polmont. Works Chemist. *Signed by* : F. S. Dainton, W. G. Palmer, R. J. Loveluck.
- Sibley, John Hammond**, B.Sc. (Lond.), A.R.C.S., A.I.C. British. 48, Leicester Street, Leicester. Works Chemist, Imperial Typewriter Co. *Signed by* : H. L. Long, Malcolm Crawford, E. M. Stoddart.
- Smith, Estelle**, B.Sc. (Sydney). British. The Women's Club, Beaumont House, Elizabeth Street, Sydney. Science Teacher. *Signed by* : J. C. Earl, C. E. Fawsitt, T. Iredale.
- ***Stainthorpe, Kenneth Robert**, B.Sc. (Dun.). British. 8, Benwell Hill Gardens, Newcastle-on-Tyne, 5. Research Student, reading for degree of M.Sc. *Signed by* : Wesley Cocker, G. R. Clemo, Richard Raper.
- Stanton, William Ronald**, A.I.C. British. Ridge Crest, Foxlands Avenue, Penn, Wolverhampton. Departmental Works Manager. *Signed by* : H. Paul, Ernest N. Johnson, A. E. Alexander.
- ***Stephen, Joan Margaret Louise**, B.Sc. (Lond.). British. 14, Meadow Green, Welwyn Garden City. Research Chemist. *Signed by* : R. G. Heyes, Thomas S. Work, Kathleen W. Robertson.
- Stephens, Francis Frederick**, Assoc.M.C.T., A.I.C. British. 53, Seymour Road, Clayton, Manchester, 11. Research Chemist. *Signed by* : John K. Wood, A. F. H. Ward, G. Baddeley.
- Styles, Ronald Arthur**, M.A. (Cantab.), A.I.C. English. 61, Bank Street, Irvine. Plant Chemist. *Signed by* : W. D. Whitaker, J. M. C. Thompson, W. P. G. Lewis.
- ***Swain, Tony**, Inter. B.Sc. (Lond.). British. Mardon Hall, Exeter. Undergraduate at University College, Exeter, reading for an honours degree in Chemistry to be taken June, 1943. *Signed by* : H. T. S. Britton, John Jacques, P. T. Gilbert, S. J. Gregg, W. H. Lewis, R. King.
- Sykes, George**, M.Sc. (Lond.), A.I.C., English. Onchan Drive, Carlton, Nottingham. Bacteriologist. *Signed by* : W. Frank Short, E. M. Bavin, D. A. Peak.
- Taylor, Max**, Chemist and Druggist. British. 117, Coltman Street, Hull. Manager and Superintendent in retail pharmacy. *Signed by* : R. H. Williams, S. Burnley, J. B. Stocks.
- ***Tilston, Donald Vernon**. British. Sunny-Bank, Treborth, Bangor. Final year of B.Sc. (Hons.) course in Chemistry at University College of North Wales, Bangor. *Signed by* : W. Rogie Angus, G. R. Ramage, L. F. Gilbert.
- Tomlinson, Kenneth**, B.Sc. (Manc.), A.I.C., Graduate of the Institution of Chemical Engineers. British. Harston, Cambridge. Chemist. *Signed by* : F. S. Spring, D. C. Henry, F. Fairbrother, J. B. M. Herbert.
- Turner, Francis John**, B.Sc. (Lond.), A.I.C. British. 93, Redway Drive, Twickenham. Analytical Chemist. *Signed by* : Leslie H. Lampitt, R. Leslie Collett, E. B. Hughes.
- Walker, Harold Augustus**, A.I.C. British. 32, Parklands Drive, Loughborough. Research and Process Chemist. *Signed by* : G. Malcolm Dyson, J. A. Marriott, W. S. Stevens.
- ***White, Alan**. British. Lincoln College, Oxford. Undergraduate reading in the Honour School of Natural Science (Chemistry). *Signed by* : Ronald P. Bell, S. G. P. Plant, N. V. Sidgwick.
- ***Willing, Ernest George John**, Inter. B.Sc. (Lond.). British. Shell House, 14, The Strand, Topsham. Student at University College, Exeter, taking B.Sc. (Special) in Chemistry. *Signed by* : H. T. S. Britton, S. J. Gregg, John Jacques, P. T. Gilbert, R. King, W. H. Lewis.
- Woodbury, Norman Hopton**, B.Sc.Hons. (Bristol). British. 8, Bishop Road, Bishopston, Bristol, 7. Experimental Officer. *Signed by* : H. D. Springall, J. K. N. Jones, W. E. Garner.

Young, Edwin Harry Paterson, M.Sc. (Manc.). British. Eastbank, 60, Massie Street, Cheadle. Research Chemist.
Signed by : F. S. Spring, A. R. Todd, A. E. Gillam.

UNDER SPECIAL PROVISION APPERTAINING TO APPLICANTS RESIDENT ABROAD.

Flint, John Percy, M.P.S. British. 300, Kingsway, Valletta, Malta. Lieutenant, R.A. Signed by : H. Lucas.

Hovorka, Frank, A.B. (Iowa), M.S. and Ph.D. (Illinois). Czech. Morley Chemical Laboratory, Western Reserve University, Cleveland, Ohio. Professor of Chemistry and Director of University Chemical Laboratories. Signed by : Olin F. Tower, Carl F. Prutton.

Wallace, Curtis Clayton, B.Sc. (Dalhousie), Fellow, The Royal Commission for the Exhibition of 1851, 1910-12. Canadian. 19th Street and Allegheny Avenue, Philadelphia, Penn. Chief Chemist to The Electric Storage Battery Co. Signed by : Foster Dee Snell.

PAPERS RECEIVED

List of papers received between January 22nd and February 18th, 1943. (This list does not include the titles of papers which have been read at a Scientific Meeting or which have appeared in the *Journal*.)

"The structure of molecular compounds. Part I. The crystal structure of *p*-iodoaniline *s*-trinitrobenzene." By H. M. POWELL, G. HUSE, and P. W. COOKE.

"The structure of the boron hydrides." By H. C. LONGUET-HIGGINS and R. P. BELL.

"The kinetics of the inhibition of the reaction between chlorine and nitric oxide." By E. M. STODDART.

"The preparation of diazo-naphthols with observations on the nitration of 4-bromoaceto-1-naphthalide and a new procedure for the rapid hydrolysis of the 4-halogeno-2-nitroaceto-1-naphthalides." By H. H. HODGSON and S. BIRTWELL.

"The preparation of aldehydes by the disruptive oxidation of the ethylene linkage." By R. R. DAVIES and H. H. HODGSON.

"The structure of molecular compounds. Part II." By H. M. POWELL and G. HUSE.

"Glyoxaline formation in the phenanthrene series." By J. REILLY and A. HOLLAND.

"Activity coefficients of zinc chloride, bromide, and iodide from electromotive forces." By (MISS) D. M. EGAN and J. R. PARTINGTON.

"The hydrogenation of tutin." By S. N. SLATER.

THE CHEMICAL SOCIETY

NOTICE OF FORTHCOMING SCIENTIFIC MEETINGS

IN LONDON.

Thursday, April 15th, 1943, at 2.30 p.m.

Ninth Liversidge Lecture on "Magnetochemistry," by Professor S. Sugden, D.Sc., F.R.S.

MEETINGS OUTSIDE LONDON.

DUNDEE.

Thursday, April 15th, 1943, at 4.30 p.m.

Tilden Lecture, on "Recent Developments in the Theory of Reaction Kinetics in Solution," by Mr. R. P. Bell, M.A., B.Sc. To be held in the Chemistry Department of the University College.

LIVERPOOL.

Friday, April 9th, 1943, at 6.30 p.m.

Lecture on "The Liquid State," by Dr. E. A. Moelwyn-Hughes. Joint Meeting with the Local Sections of the Institute of Chemistry and the Society of Chemical Industry and with the British Association of Chemists. To be held at Reece's Restaurant, Parker Street.

NOTTINGHAM.

Friday, May 14th, 1943, at 4.30 p.m.

Lecture on "Recent Progress in Quantitative X-ray Analysis", by Professor J. M. Robertson, M.A., D.Sc. Joint Meeting with the University College Physical and Chemical Society. To be held in the Lecture Theatre of the Chemistry Department, University College, University Park.

SHEFFIELD.

Lecture on "Modern Technique in Inorganic Chemistry," by Dr. H. J. Emeléus. Joint Meeting with the University of Sheffield Chemical Society. To be held in the Chemical Lecture Theatre of the University, Western Bank.

PROCEEDINGS
OF THE
CHEMICAL SOCIETY.

OFFICIAL ANNOUNCEMENTS

DEATHS.

The Council regret to announce the deaths of the following :

Honorary Fellow.

	Elected.	Died.
Fred Swarts	1931	September 6th, 1940.

The following resolution has been passed by the Council :

“ The President, Officers, and Council of the Chemical Society have learned with deep regret of the death on September 6th, 1940, of Professor Swarts, who was elected an Honorary Fellow of the Society in May, 1941.

“ They record their high appreciation of the services Professor Swarts has rendered to the Science of Chemistry and mourn the loss of their distinguished colleague.”

Fellows.

	Elected.	Died.
Henry George Denham	1907	February, 1943.
Herbert Frederick Francis Burdett Fermor	1899	January 4th, 1943.
Nikolai Semenovitsch Kurnakov	1915	March 19th, 1941.
		Killed in action.
Colin Richard Morrison-Jones	1935	July 24th, 1942.

LOCAL REPRESENTATIVE FOR GLASGOW.

Dr. James Bell has accepted the invitation of the Council to serve as Local Representative for Glasgow, in the place of Dr. T. S. Stevens, to whom the Council have conveyed their cordial thanks for the valuable services he has rendered to the Society during his term of office.

HONORARY FELLOWS.

The following have been nominated by the Council for election as Honorary Fellows of the Society :

Professor Linus Pauling,
Professor Nikolai Semenov,
Professor Nikolai Zelinsky.

Fellows wishing to lodge objections to the election of these should communicate with the Honorary Secretaries not later than Monday, April 12th, 1943.

PUBLICATIONS FOR JANUARY.

As stated in the *Proceedings* last month, to save delay, Fellows were sent the same publications for January as they received in December 1942. In order to conserve the stock, the Council would much appreciate it if Fellows would kindly return to the Society those publications which they received in excess of their requirements.

FORMAL ADMISSION OF FELLOWS.

The following were formally admitted Fellows of the Chemical Society at the Annual General Meeting on the 25th March :

C. E. Ramsden, F. L. M. Pattison, P. G. Gugenheim, and I. G. E. Wilding.

FELLOWSHIP.

The following 83 candidates were elected Fellows on March 4th :

Lauchlin Henry Dyke Acland.	Robert John Gow.	Cyril Edward Ramsden.
Frederick George Angell.	Gerald Gratton.	Mannigay Umanath Rao.
Lionel Philip Antrobus.	Ronald Gordon Hanns Greene-Kelly.	Sarah Elizabeth Reid.
Henry Robertson Archer.	Fred Lloyd Harrison.	Dora Nellie Richardson.
Leslie Barker.	Stephen John Hart.	Sir Theodore Rigg, K.B.E.
Desmond Joseph Brown.	James Hofton.	David Mark Ritson.
Frederick Stanley Brown.	Iris Ada Hogben.	Frank Roffey.
John Trevor Garnet Brown.	Donald Percy Hopkins.	Murray James Rumens.
William Ritchie Birnham.	Ellis Hughes.	William Sabel.
David Burns.	Norman Albert Hurt.	Herbert George Sammons.
Eustace George Coverley Clarke.	Hans Jacob Kahn.	Konrad Schwarzwald.
John Howard Clent.	Robert Henry Kerlogue.	Kathleen Joyce Sinclair.
John Henry Collins.	Edward Sydney Lane.	Joseph Smith.
Robert George Denton Crick.	Percival Donald Liddiard.	Robert Souter.
Harold Crossley.	James Scott Long.	Frank Kenneth Sutcliffe.
Geoffrey Arthur Dawe.	Eric Macdonald.	Gordon Roy Sutcliffe.
Jack De Ment.	Gordon McLeavy.	Alfred Kenneth Unsworth.
Frank George Dewdney.	Desmond Christopher Mandeville.	Peter William Weightman.
Thomas Dodgson.	Cyril Wheatley Maplethorpe.	Charles Smalley Whewell.
Peter Stefan Elias.	Denis Haigh Marrián.	Lawrence Whitby.
Joseph Elks.	Thomas Hamilton Martin.	Henry Lewis White.
Edward Stanley Forber.	Eric William Mills.	Peter Geden Wilkinson.
Clifford Kitchener Foster.	Sidney Charles Mitchell.	Hector Muir Dawson Wilson.
Solly Fox.	Stanley Cecil Mitchell.	Wilhelm Wolfner.
Geoffrey Gee.	Arthur Milnes Morley.	William Stanley Wood.
Norbert Geller.	John Nicholson.	William Robert Wragg.
John Raymond Goll.	Henry Norman Brecknock Palmer.	Gilbert Bruce Wright.
Isaac Goodman.	Kenneth Henry Pausacker.	

LIST OF APPLICATIONS FOR FELLOWSHIP

(*Fellows wishing to lodge objections to the election of these candidates should communicate with the Honorary Secretaries not later than Monday, April 12th, 1943. Such objections will be treated as confidential. The forms of application are displayed in the Library.*)

- Addison, Cyril Clifford**, B.Sc. and Ph.D. (Dun.), F.I.C. British. 19, Poulton Street, Kirkham. Analytical Chemist. *Signed by* : C. W. Gibby, G. H. Christie, E. Taylor.
- Anderson, John**, M.A., B.Sc., Ph.D. (St. Andrews), A.I.C. British. 29, Dingle Road, Alkrington, Middleton, Manchester. Chemist. *Signed by* : Norman H. Haddock, Ernest Chapman, Alfred Davidson.
- Beaumont, Stanley**, B.Sc.Hons. (L'pool). British. 29, Spennithorne Road, Stockton-on-Tees. Process Manager in a heavy chemicals works. *Signed by* : A. McGookin, Francis W. Kay, R. Leslie Collett.
- Bowes, Edgar Ashcroft**. British. 60, Oakwood Road, Blackhill. Analytical and Research Chemist. *Signed by* : J. H. Robson, Michael Staples, J. Stewart Cook.
- Buckley, Frank Cyril**, A.I.C., A.M.C.T. English. 47, Hullah Lane, Wrexham. Industrial Chemist. *Signed by* : L. A. Downing, John K. Wood, O. Rhys Howell.
- Branscombe, Douglas John**, M.Sc. and Ph.D. (Lond.), Dr. Ing. (Dresden). British. 9, Ashleigh Gardens, Sutton. Chemist. *Signed by* : R. E. Slade, R. M. Winter, A. Proven.
- *Capp, Clifford William**. British. 96, Bridge Street, Stowmarket. Undergraduate student of Queen Mary College taking honours B.Sc. examination in June, 1943. *Signed by* : F. S. Dainton, J. R. Partington, H. D. K. Drew.
- Crooks, William Milsted**, B.Sc.Hons. (Lond.), A.I.C. British. Wilmar Cottage, Hedon Road, Preston, Hull. Works Chemist. *Signed by* : Alban J. Gait, A. P. Backshell, D. E. Ladhams.
- *Davis, Michael**. British. 12, Albion Road, Tottenham, N. 17. Student (undergraduate) in Chemistry, Queen Mary College, University of London. Finals year B.Sc. (special). *Signed by* : F. S. Dainton, H. D. K. Drew, J. R. Partington.
- Dawson, Edward Romer**, M.Sc. and Ph.D. (Leeds). British. 3, Ashley Avenue, Epsom. Research Chemist with a distillers company. *Signed by* : J. Vargas Eyre, E. Horton, J. G. Maltby.
- Dixon, Norman**, A.M.C.T., A.I.C., F.I.R.I. English. Norence, Hale Road, Hale. Chief Chemist, W. T. Glover & Co., Ltd. *Signed by* : W. J. S. Naunton, R. Leslie Collett, W. McGillivray Morgan.
- *Doran, Richard Joseph**, B.Sc. (Lond.), A.R.C.S. British. 38, Westbrook Road, Heston, Hounslow. Technical Assistant (Grade III), Ministry of Supply. *Signed by* : A. A. Eldridge, H. J. T. Ellingham, H. V. A. Briscoe.
- Grant, Ewan Charles Simpson**, A.H.W.C., A.I.C. British. 20, Garven Road, Stevenston. Plant Chemist. *Signed by* : James Sandilands, Robert G. M. Dakers, Hugh B. Nisbet.
- *Groves, George William**, Inter.B.Sc. (Lond.). British. Connaught Hall, Wessex Lane, Swaythling, Southampton. Student, University College, Southampton. *Signed by* : K. R. Webb, N. K. Adam, S. H. Harper, I. G. M. Campbell.
- Haas, Gerhard Julius**, B.A. (Cantab.). Stateless. Hotel Savoy, Fy 15, Vedadv, Habana, Cuba. Assistant Chemist. *Signed by* : F. G. Mann, H. McCombie, F. G. Holliman.

- Hamilton, James Alexander**, B.Sc.Hons. (Glas.): British. 5, Park Hill Road, Harborne, Birmingham, 17. Research and Analytical Chemist. *Signed by* : T. S. Stevens, Andrew Kent, S. Horwood Tucker.
- Hill, James**, M.Sc. (Leeds), A.I.C. English. The Farm, Farm Road, Street. Chief Chemist to a firm of Shoe Manufacturers. *Signed by* : R. Faraday Innes, M. P. Balfe, J. H. Bowes.
- Hock, Alfred Louis**, M.Sc. and Ph.D. (Sheffield), A.I.C. British. Clifton Junction, Swinton, Nr. Manchester. Research Chemist. *Signed by* : C. H. Wood, C. J. Bushrod, G. H. J. Neville.
- Houghton, Gilbert Underwood**, M.Sc. (Lond.), F.I.C. British. Tree Tops, Welshwood Park Road, Colchester. Chemist and Bacteriologist. *Signed by* : R. Leslie Collett, J. W. Cook, E. de Barry Barnett.
- Huggett, Leonard George**, B.Sc. (Lond.), A.R.C.S., A.I.C. British. 5, Stuart Road, Acton, W. 3. In charge of arc-welding research section of a works. *Signed by* : C. Duggan, R. W. Pearman, A. G. Rees.
- *Hunt, John Harold**. British. 10, Ollards Grove, Loughton. Student (undergraduate) in chemistry at Queen Mary College, University of London. *Signed by* : F. S. Dainton, J. R. Partington, H. D. K. Drew.
- Kerfoot, Jack**, B.Sc.Hons. (Lond.), A.I.C. British. Fairlight, Sandylands, Church Lane, Wistaston, Crewe. Research Chemist. *Signed by* : G. H. Wyatt, A. P. Best, F. Bell.
- Keyworth, Charles Maurice**, M.Sc. (Leeds), F.I.C., A.M.I.Chem.E. British. Faraway, Geoffrey Avenue, Leek. Chief Chemist to a works. *Signed by* : Frederick M. Rowe, Arnold T. Peters, E. Race.
- *Le Couteur, Peter**, State Bursary in Chemistry. English. L'Anresse, Hayne Road, Beckenham. Reading for an Honour's Degree in Chemistry at Oxford University. *Signed by* : H. W. Thompson, W. Baker, E. Hope.
- Makin, Fred Beresford**, M.Sc. (Dun.), A.I.C. British. 26, Lattice Avenue, Ipswich. Research Chemist. *Signed by* : F. Sproston, L. W. Turner, Geoffrey Swann.
- *Martin, Charles Walter**, B.A.Hons. (Oxon). British. Heatherdale, May Hill, Monmouth. Teacher of Chemistry at King Edward's Grammar School. *Signed by* : B. Lambert, E. G. J. Hartley, F. M. Brewer.
- Money, Reginald William**, M.Sc. (Lond.), A.I.C. British. 26, Seaforth Lodge, Barnes, S.W. 13. Analytical Chemist. *Signed by* : E. B. Hughes, C. A. Bassett, P. Bilham.
- Pollard, Frederick Henry**, B.Sc. and Ph.D. (Bristol), A.I.C. British. Dept. of Chemistry, The University, Bristol, 8. Lecturer in Chemistry. *Signed by* : E. B. Maxted, G. M. Bennett, W. E. Garner.
- *Pond, Vanda Ruth Gladys**. British. Fairfields, 6, Hillrise, Cuffley. Student (Undergraduate) in Special Chemistry, Queen Mary College (London University). *Signed by* : F. S. Dainton, J. R. Partington, H. D. K. Drew.
- Price, Charles Harold**, B.Sc. (Lond.), A.I.C. British. 56, Malvern Avenue, York. Analytical and Research Chemist. *Signed by* : H. B. Brown, B. G. McLellan, R. Leslie Collett.
- Price, Herbert**, Ph.C. (Manc.). British. School of Pharmacy, Technical College, Plymouth. Lecturer in Pharmaceutics. *Signed by* : Frank Royle, Harold Barnes, O. F. C. Bromfield.
- Pullen, Gilbert George Sargeant**, F.I.C. British. 30, Jubilee Avenue, Whitton. Analytical and Research Chemist. *Signed by* : J. J. Fox, R. Leslie Collett, B. A. Ellis.
- Robb, Charles Alexander**, B.Sc. (Q.U.B.), A.I.C., A.M.I.Chem.E. British. Bakelite, Ltd., Redfern Road, Tyseley, Birmingham. Chemical Engineer. *Signed by* : Stephen Miall, A. W. Stewart, H. Graham.
- *Serin, Peter Arthur**, Inter.B.Sc. (Lond.). British. 138, Greenway Road, Runcorn. Experimental Assistant. *Signed by* : Joseph M. J. Estevez, J. W. Baker, Ronald Wood.
- Shedden, Frank**, B.Sc. (Lond.), F.I.C. British. 69, Highgate Road, Walsall. Retired after service in research with Messrs. Courtaulds, Ltd. *Signed by* : W. A. Glover, H. Paul, Ernest N. Johnson.
- Spencer, Geoffrey**, M.Sc. (Lond.), A.I.C. British. Brocket, Flash Lane, West Bollington, Macclesfield. Chemist to an Aniline Co. *Signed by* : D. S. Stephens, D. R. A. Davies, R. Tulley-Turner.
- Staudinger, Hanns Peter**, Dipl.Ing. and Dr.Eng. (Chem.) (Technische Hochschule, Darmstadt). Former Austrian. 11, Holman Court, Church Street, Ewell. Research Chemistry in charge of Research Section. *Signed by* : Donald Faulkner, C. A. Brighton, H. M. Stanley.
- Staveley, Lionel Alfred Kilby**, M.A.Hons. (Oxon). British. The Barn, New College, Oxford. Fellow of New College, Oxford, and Lecturer in Chemistry. *Signed by* : Ronald P. Bell, Harry Irving, F. M. Brewer.
- Styan, George Eric**, B.Sc.Hons. (Lond.), A.I.C. British. 2, Hoyle Ing Road, Thornton, Bradford. Textile Chemist, Analytical and Research (Wool). *Signed by* : R. M. Barrer, H. I. Stonehill, R. Leslie Collett.
- Tobias, Benjamin Franklin**, B.Sc.Hons. (Lond.), A.I.C. British. 33, Seymour Court, Winchmore Hill, N. 21. Chemical Industries Inspector, Ministry of Labour, Red Lion Square, W.C. 1. *Signed by* : Wm. Wardlaw, J. J. Fox, R. Leslie Collett.
- Wallis, Ronald George**, B.Sc. (Lond.), A.I.C. British. British Leather Manufacturers' Research Association. Research Chemist. *Signed by* : M. P. Balfe, R. Leslie Collett, J. H. Bowes.
- Waygood, William Arthur**, B.Sc. (Lond.), A.R.C.S., F.I.C. English. 45, Northwick Avenue, Kenton, Harrow. Chemist. *Signed by* : Leslie H. Lampitt, E. B. Hughes, P. Bilham.
- Whitfield, George William**, B.Sc.Hons. (Lond.), A.I.C. British. Paradise, Coven, Nr. Wolverhampton. Chemist. *Signed by* : J. E. B. Randles, F. S. Dainton, A. S. Nickelson.
- Windridge, Mark Edwin Douglas**, M.A. and B.Sc. (Oxon), A.I.C., M.Inst.S.P. British. 79, Newbridge Crescent, Wolverhampton. Research Chemist. *Signed by* : Deric W. Parkes, G. W. Usherwood, Fred G. Broughall.
- Wood, William Laurence**, Ph.D., M.Sc.Tech. (Sheffield), M.I.Chem.E., A.I.C. British. Vale Road East, Tonbridge. Chemical Engineer and Research Station Manager. *Signed by* : H. Langwell, J. Vargas Eyre, H. M. Stanley.
- Wornum, William Esmond**, M.C., B.Sc.Hons. (Lond.), A.R.C.S., F.I.C. British. 41, Codsall Road, Tettenhäll. Chief Chemist. *Signed by* : George Dring, L. A. Jordan, H. W. Keenan.

UNDER SPECIAL PROVISION APPERTAINING TO CANDIDATES RESIDENT ABROAD.

- Evans, Charles Emlyn**, B.Sc.Hons. (Lond.), A.I.C. British. Anglo-Iranian Oil Co., Ltd., Abadan, S. Iran. Senior Chemist. *Signed by* : K. F. Bamford.
- Hafez, Farid Ibrahim**, B.Sc. (Fuad I University). Egyptian. Faculty of Engineering, Alexandria. Lecturer, Chemistry Department, Farouk I University. *Signed by* : Nazim Fakhoury.

* Reduced annual subscription.

Klein, Vilém, M.V.C. (Brno), formerly First Assistant, Chemical Institute Vet. College, University, Brno. Czechoslovak. 3, Royston Road, Richmond. Chemist. *Signed by* : Robt. Campbell.
Parry, Reginald Ezra, M.Sc. (Melbourne), M.I.Chem.E., A.I.C. Australian. c/o The Swan Brewery Coy., Ltd., Mounts Bay Road, Perth. Chief Chemist. *Signed by* : R. Leslie Collett.

PAPERS RECEIVED

List of papers received between February 18th and March 17th, 1943. (This list does not include the titles of papers which have been read at a Scientific Meeting or which have appeared in the *Journal*.)

- "The interconversion of hexoestrol and isohexoestrol." By D. A. PEAK and W. F. SHORT.
 "Derivatives of 1 : 2 : 4 : 5-tetrachlorobenzene. Part I. Nitro- and amino-compounds." By A. T. PETERS, F. M. ROWE, and D. M. STEAD.
 "Polyhalogeno-*o*-anisidines and their derivatives." By W. S. W. HARRISON, A. T. PETERS, and F. M. ROWE.
 "Formation and structure of some organic molecular compounds. Part II. Molecular compounds of *s*-trinitrobenzene with some unsaturated ketones." By J. WEISS.
 "Conversion of an alcohol into the corresponding aldehyde by a less volatile aldehyde with the aluminium alcoholate as catalyst. The influence of an ethylene linkage in the reactant aldehyde." By R. R. DAVIES and H. H. HODGSON.
 "Nuclear methylation of α -naphthol. A correction." By J. W. CORNFORTH, (MRS.) R. H. CORNFORTH, and SIR ROBERT ROBINSON.
 "A criterion for the mechanism of the reaction between alkyl halides and hydroxylic solvents. Part III. Reactions of *n*-butyl bromide." By M. L. BIRD, E. D. HUGHES, and C. K. INGOLD.
 "New syntheses of heterocyclic compounds. Part II. 6-phenyl-2 : 3 : 7 : 8-Dibenzo-1 : 5-naphthridine." By V. A. PETROV, M. V. STACK, and W. R. WRAGG.
 "The kinetics of the aqueous hydrolysis of phenylbromoacetic acid." By W. R. BULCRAIG and (the late) H. M. DAWSON.
 "The kinetics of the reaction between silver nitrate and the phenylbromoacetate ion in aqueous solution." By W. R. BULCRAIG and (the late) H. M. DAWSON.
 "Photochemical experiments. Part VI. Formation of benzpinacol by the action of acetone on benzhydrol in sunlight." By A. SCHÖNBERG and A. MOSTAFA.
 "Reactions and antibacterial properties of *p*-diazine di-*N*-oxides. (Bacterial inhibition by metabolite analogues. Part VI)." By H. McILWAIN.
 "A synthesis of methacrylic acid." By T. WHITE.
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THE CHEMICAL SOCIETY

NOTICE OF FORTHCOMING SCIENTIFIC MEETINGS.

OUTSIDE LONDON.

CAMBRIDGE.

Thursday, May 13th, 1943 at 2.30 p.m.

Scientific meeting to be held in Lecture Room 1, Chemical Laboratory, Pembroke Street. The following papers will be read :—

The mechanism of indole formation from phenacylarylamines. Part I. By A. F. Crowther, F. G. Mann and (in part) D. Purdie.

Spectroscopic analysis of hydrocarbon mixtures. By G. B. B. M. Sutherland.

Catalytic hydrogenation. By E. K. Rideal.

LEEDS.

Tuesday, May 11th, 1943, at 6.30 p.m.

Lecture on "Some Consequences of Hydrogen Bond Formation in Organic Compounds," by Dr. Wilson Baker. To be held in the Chemistry Lecture Theatre of the University, Woodhouse Lane.

LIVERPOOL.

Thursday, May 6th, 1943, at 6.0 p.m.

"A Lecture-Demonstration on Certain Indicators for Volumetric Analysis," by Dr. A. D. Mitchell, F.I.C. Joint Meeting with the Local Sections of the Institute of Chemistry and the Society of Chemical Industry and with the British Association of Chemists. To be held in the Muspratt Lecture Theatre of the University.

NOTTINGHAM.

Friday, May 14th, 1943, at 4.30 p.m.

Lecture on "Recent Progress in Quantitative X-ray Analysis," by Professor J. M. Robertson, M.A., D.Sc. Joint Meeting with the University College Physical and Chemical Society. To be held in the Lecture Theatre of the Chemistry Department, University College, University Park.

SHEFFIELD.

Friday, May 14th, 1943, at 5.30 p.m.

Lecture on "Modern Technique in Inorganic Chemistry," by Dr. H. J. Emeléus. Joint Meeting with the University of Sheffield Chemical Society. To be held in the Chemical Lecture Theatre of the University, Western Bank.

PROCEEDINGS
OF THE
CHEMICAL SOCIETY.

Minutes of a
SCIENTIFIC MEETING

held at Burlington House, W. 1, on Thursday, April 15th, 1943, at 2.30 p.m.

The President, Dr. W. H. MILLS, M.A., F.R.S., was in the Chair, and welcomed the visitors present.

FORMAL ADMISSION OF FELLOWS.

The following were formally admitted Fellows of the Chemical Society :

A. W. Leftwich, C. R. Oswin, S. L. Goodchild, R. V. West, Miss N. M. Czczowiczka, E. Macdonald, Miss Nora Herzfeld, J. Graham, Miss C. M. French, and Henry R. Archer.

LIVERSIDGE LECTURE.

After a brief introduction, the PRESIDENT called on Professor S. Sugden to deliver his Liversidge Lecture entitled "Magnetochemistry."

At the conclusion of the lecture, a vote of thanks to the Lecturer, proposed by Dr. F. Fairbrother, was carried with acclamation.

OFFICIAL ANNOUNCEMENTS

DEATHS.

The Council regret to announce the deaths of the following Fellows :

	Elected.	Died.
Peter Phillips Bedson	1879	April 4th, 1943
William Henry Duckworth	1901	March 8th, 1943
Arthur John Harrison	1943	February, 1943
Frederick William Jackson	1916	March 22nd, 1943
Edward Flatman Linstead	1899	April 2nd, 1943
Herbert Marsden	1907	March 23rd, 1943
Henry Forster Morley	1879	April 3rd, 1943
Archibald Durrant Ollé	1915	September 9th, 1942
Herbert Stanley Redgrove	1906	March 18th, 1943
Harold Gordon Rule.....	1915	March 15th, 1943
Franz Carl Schmelkes	1941	December 12th, 1942
Samuel Allinson Woodhead.....	1898	April 4th, 1943

CONGRATULATIONS.

The Congratulations of the Council have been conveyed to Dr. David Hooper, who completed 60 years of Fellowship on March 1st, and to Sir Shanti S. Bhatnagar, Dr. A. J. Ewins, Dr. J. J. Fox and Professor G. A. R. Kon, on their election as Fellows of the Royal Society.

ACKNOWLEDGMENTS.

The thanks of the Council have been conveyed to Mr. W. G. Polack for a contribution to the Publications Fund and to Messrs. E. A. C. Crouch, M. Gregory and C. H. Wood, for presenting publications of the Society.

RESEARCH GRANTS.

The Council have made the following grants from the Research Fund :

	£	s.	d.
Aliphatic nitration. (I. Dostrovsky)	10	0	0
The nitration of phenol. (G. J. Minkoff)	10	0	0
The replacement of halogen by the amino-group. (P. A. Rao)	10	0	0
Aromatic nitration. (R. I. Reed)	10	0	0

ELECTION OF HONORARY FELLOWS.

The following were elected Honorary Fellows of the Society by the Council at their meeting on April 15th, 1943 :

Professor Linus Pauling (Pasadena).
Professor Nikolai Semenov (U.S.S.R.)
Professor Nikolai Zelinsky (U.S.S.R.)

COPIES OF EDUCATIONAL BOOKS FOR PRISONERS OF WAR.

An application has been received from the War Organisation of the British Red Cross Society for gifts of educational books for the use of prisoners of war. The books most wanted are popular text-books of all stages from the most elementary to the degree standard, but books published prior to 1930 would be of little use. All books must be clean and free from any annotations or underlinings.

The Council would welcome copies of such books from Fellows, which can be sent either to the British Red Cross Society, Prisoners of War Department, The New Bodleian, Oxford, or to the Chemical Society.

FELLOWSHIP.

The following 133 candidates were elected Fellows on April 15th :

Donald Malcolm Adamson.	Thomas Gilbert Heafield.	Charles Harold Price.
Peter Swainston Adamson.	George Mann Henderson.	Harold Idris Price.
Cyril Clifford Addison.	James Hill.	Herbert Price.
David George Allen.	Henry William John Hills.	William George Sargeant Pullen.
John Anderson.	Alfred Louis Hock.	William Duff Rae.
Arthur John Marson Bailey.	Charles Edward Hollis.	Hugh Wilma Boulton Reed.
Sydney George Beard.	Harry Holness.	Rowland Ivor Reed.
Stanley Beaumont.	Gilbert Underwood Houghton.	Charles Alexander Robb.
William Herbert Bennett.	Fránk Hovorka.	Walter Munro Robertson.
Herbert Ripley Bentley.	Leonard George Huggett.	George Walton Saville.
Austin Ernest Bide.	Derek William Humphries.	Frank Schofield.
Edgar Ashcroft Bowes.	John Harold Hunt.	Franklin Clermont Scott.
Douglas John Branscombe.	Kenneth Henderson Jack.	Peter Arthur Serin.
Charles Frederick Ratcliffe	Barbara Anne Jackman.	Philip Malcolm Shaw.
Brotherton.	Barbara Rosamund Jacobs.	Frank Shedden.
Frank Cyril Buckley.	Ridley Saul Jacobs.	John Hammond Sibley.
Stanley Bywater.	Stanley Jacobs.	Estelle Smith.
Clifford William Capp.	Frederick Ernest James.	Geoffrey Spencer.
Harold Gilbert Cook.	Albert Arthur Johnson.	Kenneth Robert Stainthorpe.
William Cooper.	Sydney James Johnstone.	William Ronald Stanton.
William Milsted Crooks.	Fred Jones.	Hanns Peter Staudinger.
John Douglas Davies.	Gwilym Thomas Jones.	Lionel Alfred Kilby Staveley.
Harold Davis.	Jack Kerfoot.	Joan Margaret Louis Stephen.
Margaret Isabel Davis.	Charles Maurice Keyworth.	Francis Frederick Stephens.
Michael Davis.	Vilém Klein.	George Eric Styán.
Edward Romer Dawson.	Peter Le Couteur.	Ronald Arthur Styles.
Norman Dixon.	Clifford Lewis.	Tony Swain.
Richard Joseph Doran.	Norman Lewton-Brain.	George Sykes.
John Reginald Claude Duke.	Fred Beresford Makin.	Max Taylor.
Harold Garton Emblem.	Philip Sydney Stewart Forbes	Donald Vernon Tilston.
Charles Emlyn Evans.	Marsden.	Benjamin Franklin Tobias.
Frederick Noel Fastier.	Charles Walter Martin.	Kenneth Tomlinson.
William Thomas Field.	Geoffrey William Martin.	Francis John Turner.
William Flavell.	Gabriel Joseph Minkoff.	Harold Augustus Walker.
John Percy Flint.	Reginald William Money.	Curtis Clayton Wallace.
Alan Crofton Godfrey.	John Royston Moore.	Ronald George Wallis.
William Graham.	Dennis Alexander John Noble.	William Arthur Waygood.
Ewan Charles Simpson Grant.	James Wilson Oswald.	Alan White.
George William Groves.	George Ronald Page.	George William Whitfield.
Gerhard Julius Haas.	Edward Burdon Parkes.	Ernest George John Willing.
William Henry Hadley.	Reginald Ezra Parry.	Mark Edwin Douglas Windridge.
Farid Ibrahim Hafez.	Norman Harold Philip.	William Laurence Wood.
Alan Montague Hall.	Frederick Henry Pollard.	Norman Hopton Woodbury.
James Alexander Hamilton.	Vanda Ruth Gladys Pond.	William Esmond Wornum.
John Percival Hatton.	Norman Hill Philpott Pratt.	Edwin Harry Paterson Young.

LIST OF APPLICATIONS FOR FELLOWSHIP

(Fellows wishing to lodge objections to the election of these candidates should communicate with the Honorary Secretaries not later than Monday, May 17th, 1943. Such objections will be treated as confidential. The forms of application are displayed in the Library.)

Agnew, John, A.I.C. British. 58, Victoria Road, Runcorn. Analytical Chemist. Signed by : A. E. Findley, R. R. Butler, R. A. E. Galley.

Andross, Mary, B.Sc., A.I.C. British. Kilmeny, Irvine, Ayrshire. Head of Chemistry and Nutrition Department, College of Domestic Science, Glasgow. Signed by : J. W. Cook, T. S. Stevens, F. R. Storrie.

***Avison, Anthony William D'Aubigny**, B.Sc. (Lond.). British. 1, Heronswood Place, Welwyn Garden City. Research Chemist. Signed by : F. Bergel, G. V. James, A. Cohen.

- Baker, Elise Grace**, 15 years laboratory experience in manufacture of fluorescent materials for X-ray screens. British. 29, Elm Part Court, Pinner. Emulsion Chemist in charge of laboratory. *Signed by* : William H. Ballantyne, Thos. B. Clerk, A. Pound, J. N. Goldsmith.
- Belcher, Kenneth Booth**, A.I.C. British. 30, The Crescent, Stoats Nest Road, Coulsdon. Analytical Chemist. *Signed by* : Otto Oberländer, Gerald R. Shutt, J. N. Goldsmith.
- *Brown, Peter**, B.Sc. (Lond.). British. 8, Oak Avenue, Dalton, Huddersfield. Works Chemist, I.C.I. (Dyestuffs) Ltd. *Signed by* : J. G. Jarrett, W. R. H. Hurtle, W. J. Evans.
- Castle, Roger**, Part I. Inter. B.Sc. British. 10, Somerset Avenue, Raynes Park, S.W. 20. Student at Imperial College, S.W. 7. *Signed by* : A. A. Eldridge, J. N. Sugden, H. V. A. Briscoe.
- Clamp, William**, B.Sc.Hons. (Lond.), A.I.C. British. Ivy Dene, Grantchester, Cambridge. Lecturer, South East London Technical Institute. *Signed by* : F. Barrow, F. L. Llewellyn, D. J. G. Ives.
- *Clement, Henry Pearse**, Inter. B.Sc. (Dun.). English. 1, Gas Cottages, Willington. 1st year honours Chemistry student. *Signed by* : R. Raper, G. R. Clemo, Wesley Cocker.
- Cone, Edgar**, M.Sc. (Lond.), A.R.C.S., A.I.C., D.I.C. British. 1, Waipapa Terrace, Wellington, N.Z. Pilot Officer in R.N.Z.A.F., Meteorological Branch. *Signed by* : H. V. A. Briscoe, A. A. Eldridge, H. J. T. Ellingham.
- Eagleton, Sidney Douglas**, A.I.C. British. 95, Harlington Road West, Feltham. Research Chemist. *Signed by* : Foster Sproxtton, L. W. Turner, Geoffrey Swann.
- *Fildes, Joyce Eleanor**, B.Sc. (Sydney). British. 68, Morts Road, Mortdale, N.S.W. Research Chemist. *Signed by* : J. C. Earl, T. Iredale, C. E. Fawsitt.
- *Freaake, Graham Alfred**, A.R.C.S. British. 574, Nacton Road, Ipswich. Analytical and Research Chemist in charge of pilot plant. *Signed by* : P. F. C. Sowter, S. F. Nicholls, S. A. Miller.
- Gazzard, Edward George**, B.Sc. (Lond.), A.I.C. British. 7, Beaufort Road, Brooklands, Sale. Works Chemist, I.C.I. (Dyestuffs), Ltd. *Signed by* : Edwin A. Shearing, H. T. S. Britton, S. J. Gregg, W. H. Lewis.
- Gill, John Parker**, B.Sc. Hons. (Leeds), A.I.C., Diploma in Dyeing (Leeds). British. 2, Kenslow Avenue, Crumpsall, Manchester, 8. Chemist (Dyestuffs Technician). *Signed by* : R. H. Peters, G. A. Rowe, Harold France.
- Grice, Kenneth Darling**, B.A. (Oxon). British. 31, Campden Grove, Kensington, W. 8. Research Chemist. *Signed by* : W. Baker, F. E. King, S. G. P. Plant.
- Houghton, Thomas Leslie**, B.Sc. (Lond.), A.I.C., A.M.C.T. British. 10, Seventh Avenue, Limeside, Oldham. Chemist. *Signed by* : O. Rhys Howell, J. Kenner, John K. Wood.
- Hudson, John Christopher**, D.Sc. (Lond.), D.I.C., A.R.C.S. British. 18, Bryony Road, Selly Oak, Birmingham, 29. Official investigator, Corrosion Committee, Iron and Steel Institute and British Iron and Steel Federation. *Signed by* : Guy D. Bengough, W. H. J. Vernon, Frank Wormwell.
- Learmonth, Eric Mitchell**, M.Sc. (Lond.), A.I.C. British. Upton Lovell, Oldfield, Bowdon. Chemist. *Signed by* : Samuel Smiles, G. H. J. Neville, R. Leslie Collett.
- *Mann, Jack**, British. 71, Cope Street, Barnsley. Student in the Honours School of Chemistry, Oxford. *Signed by* : C. N. Hinshelwood, H. W. Thompson, Richard Barrow, E. J. Bowen.
- *Moffatt, James Stark**, B.Sc.Hons. (Glas.). British. 21, Victoria Park Gardens North, Glasgow, W. 1. Research Student. *Signed by* : James D. Loudon, J. W. Cook, John Robertson.
- *Mower, Neville**, B.Sc.Hons. (Manc.). British. 105, Oak Road, Redcar. Research Student. *Signed by* : H. T. Openshaw, J. Wardleworth, Denis H. Marrian.
- Murray, Stanley Alexander James**, Leaving Certificate Higher Physics and Chemistry; Evening Classes Royal Technical College, Glasgow. British. 139, Edinburgh Road, Baillieston. Analytical and Research Chemist. *Signed by* : John A. Cranston, I. Vance Hopper, A. B. Crawford.
- Pike, Gordon Arthur William**, B.Sc. and Ph.D. (Lond.). D.I.C., A.R.C.S. British. 1, Shaftesbury Street, Stockton-on-Tees. Chemist. *Signed by* : R. H. Stanley, J. G. M. Bremner, A. J. Prince, S. C. Bevan.
- Raine, Herbert Peace**, B.Sc.Hons. (Dun.). British. 13, Lady Beatrice Terrace, New Herrington, Philadelphia, Co. Durham. Chemist (Shift Manager). *Signed by* : A. Eric J. Vickers, K. W. Gee, J. G. M. Bremner.
- *Sill, Albert Douglas**, B.Sc. (Lond.). English. 80, Princess Street, Bishop Auckland. Chemist with Texas Oil Company. *Signed by* : W. H. Patterson, H. D. K. Drew, D. C. Jones.
- Smith, Walter MacFarlane**, B.Sc. (New Brunswick), Ph.D. (McGill), Ph.D. (Cantab). British. 16, Caledon Road, Parkstone. Research Chemist. *Signed by* : F. S. Dainton, G. H. Twigg, H. Campbell, P. Johnson.
- Stevenson, Colin**, M.A., B.Sc. (Oxon). British. 96, Oxbridge Lane, Stockton-on-Tees. Research Chemist. *Signed by* : D. L. Chapman, S. C. Bevan, K. W. Gee.
- Tincker, Maurice Arthur Holden**, M.A. (Cantab), D.Sc. (Lond.), F.L.S. British. Royal Horticultural Society's Gardens, Wisley. Keeper of Laboratory. *Signed by* : H. McCombie, J. B. Whitworth, B. C. Saunders.
- Walters, William Percival**, M.Sc. (Wales). British. The Old Cottage, West Street, Buckingham. Research Chemist to a Dairy Company. *Signed by* : E. B. Anderson, J. Chatt, W. Cule Davies.
- Wormell, Robert Louis**, M.Sc. and Ph.D. (Birm.), A.I.C. British. 10, Southleigh Avenue, Coventry. Research Chemist. *Signed by* : H. Paul, Ernest N. Johnson, E. H. Sharples.

UNDER SPECIAL PROVISION APPERTAINING TO CANDIDATES RESIDENT ABROAD.

- Gabriel, Charles Lester**, M.S. (Massachusetts Institute of Technology); almost 30 years in the chemical industry chiefly in Research Department and Production. American. 1429 Walnut Street, Philadelphia, Penn. Vice President in charge of new developments. *Signed by* : Foster Dee Snell.
- Henderson, Lawrence Melvin**, Ph.D. (Chicago); Fellow-A.A.A.S.; Secretary Pet. Div. Amer. Chem. Soc.; formerly Ass't Prof. Chem. Univ. of Minn. American. P.O. Box 266, Winnetka, Ill. Supervisor of Research. *Signed by* : A. E. Dunstan.
- Melville, Archibald Carswell**, F.I.C. British. Box 640, 276, King Street, W., Cobourg, Ontario. Manager and Chief Chemist, The Bird Archer, Co., Ltd. *Signed by* : R. Leslie Collett.

- Reduced annual subscription.

PAPERS RECEIVED

List of papers received between March 17th and April 16th, 1943. (This list does not include the titles of papers which have been read at a Scientific Meeting or which have appeared in the *Journal*.)

- "Studies in the polyene series. Part VIII. A new anionotropic rearrangement. Isomerisation of ethynylcarbinols from $\alpha\beta$ -unsaturated aldehydes." By E. R. H. JONES and J. T. McCOMBIE.
- "Studies in the polyene series. Part IX. The condensation product of 1-hexyne with crotonaldehyde and its anionotropic rearrangement." By I. M. HEILBRON, E. R. H. JONES, and R. A. RAPHAEL.
- "Studies in the polyene series. Part X. Condensation of methylpent-2-en-4-yne. (1:2-dimethylvinylacetylene) with butaldehyde, crotonaldehyde and citral. Anionotropic rearrangements with vinylacetylene carbinols derived from $\alpha\beta$ -unsaturated aldehydes." By I. M. HEILBRON, A. W. JOHNSON, E. R. H. JONES, and R. A. RAPHAEL.
- "Studies in the polyene series. Part XI. The anionotropic rearrangement of the acetyleneglycol from crotonaldehyde." By I. M. HEILBRON, E. R. H. JONES, and R. A. RAPHAEL.
- "The dissociation constants of some acids in mixed solvents." By J. C. SPEAKMAN.
- "Benzcyclooctatetraenes. Part III. Diphenylene and tetraphenylene." By W. S. RAPSON, R. G. SHUTTLEWORTH, and (in part) J. N. VAN NIEKERK.
- "The preparation and therapeutic properties of certain acridine derivatives. Part IV. 5-Methylacridines, further 5-styrylacridines and their quaternary salts." By W. SHARP, (MISS) M. M. J. SUTHERLAND, and F. J. WILSON.
- "Note on antiseptic and trypanocidal action." By C. H. BROWNING and (MISS) K. M. CALVER.
- "Some hydroxyalkylamino-acids. Part I." By WESLEY COCKER.
- "Polymethylbenzoylnaphthoic acids." By R. H. MARTIN.
- "Synthesis of some α -acyltetronic acids." By WILSON BAKER, K. D. GRICE, and A. B. A. JANSEN.
- "A new technique for the ultimate microanalysis of organic compounds." By R. BELCHER and C. E. SPOONER.
- "Catalytic reduction by formic acid under pressure. Part II. A comparison of copper and nickel as catalysts." By R. R. DAVIES and H. H. HODGSON.
- "The catalytic dehydrogenation of alcohols to aldehydes in the presence of air." By R. R. DAVIES and H. H. HODGSON.
- "The decomposition of diazo-compounds in neutral solution. Some observations on the diazo-coupling reaction." By H. H. HODGSON and E. MARSDEN.
- "The synthesis of tryptophan." By E. T. STILLER.
- "Thiazinocyanines. Part II. Cyanines containing the dihydro-1:3-thiazine nucleus." By F. M. HAMER and R. J. RATHBONE.
- "The influence of the 6-nitro-group on the halogenation, nitration, mercuration, and diazo-coupling of 6-nitro-1-naphthylamine and of some related naphthalides." By H. H. HODGSON and H. S. TURNER.
- "The preparation of 1:3-dinitronaphthalene from 2:4-dinitro-1-naphthylamine and directly from 2:4-dinitro-*p*-toluenesulphon-1-naphthalide." By H. H. HODGSON and S. BIRTWELL.
- "Quinoxaline cyanines. Part II." By A. H. COOK and C. A. PERRY.
- "Quinoxaline cyanines. Part III." By A. H. COOK and R. F. NAYLOR.
- "Preparation of 3-alkylchromones. Effect of substitution on the reactivity of the 2-methyl group in chromones." By A. ZAKI and R. C. AZZAM.
- "On the theory of chromatography." By J. WEISS.
- "The kinetics of aromatic halogenation. Part II. The chlorination of hydrocarbons." By P. B. D. DE LA MARE and P. W. ROBERTSON.
- "*Cannabis indica*. Part XII. Some analogues and a water-soluble derivative of tetrahydrocannabinol." By F. BERGEL, A. L. MORRISON, H. RINDERKNECHT, A. R. TODD, A. D. MACDONALD, and G. WOOLFE.
- "Acyl migrations in the sterol series." By M. F. C. PAIGE.
- "Preparation of the oestrogen $\alpha\alpha$ -di-(*p*-ethoxyphenyl)- β -phenylbromoethylene." By W. TADROS and A. SCHÖNBERG.
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PROCEEDINGS
OF THE
CHEMICAL SOCIETY.

**Minutes of a
SCIENTIFIC MEETING**

held in the Chemical Laboratories, Pembroke Street, Cambridge, on Thursday, May 13th, 1943, at 2.30 p.m.

The President, Dr. W. H. MILLS, M.A., F.R.S., was in the Chair, and welcomed the visitors present.

MINUTES.

The minutes of the Annual General Meeting on March 25th and of the Scientific Meeting on April 15th, which had been circulated, were taken as read and were confirmed and signed.

FORMAL ADMISSION OF FELLOWS.

The following were formally admitted Fellows of the Chemical Society: Ivan M. Sharman, Michael Davis, John H. Hunt, Clifford W. Capp, Joshua Saper, Miss Vanda R. G. Pond, M. C. Ashworth, G. J. Stacey, B. A. Kilby, C. E. Dalglish, Charles Kembell, J. N. Agar, A. J. B. Robertson and D. D. Eley.

SCIENTIFIC COMMUNICATIONS.

The following papers were read and discussed:

- “The mechanism of indole formation from the phenacylarylamines. Part I.” By A. F. CROWTHER, F. G. MANN, and (in part) D. PURDIE.
 “Spectroscopic analysis of hydrocarbon mixtures.” By G. B. B. M. SUTHERLAND.
 “Catalytic hydrogenation.” By E. K. RIDEAL.

OFFICIAL ANNOUNCEMENTS

DEATHS.

The Council regret to announce the deaths of the following Fellows:

	Elected.	Died.
Alfred Walker Empson.....	1911	April 21st, 1943.
Adolf Jaffé	1900	March 20th, 1943.

CONGRATULATIONS.

The PRESIDENT has conveyed the congratulations of the Council to Messrs. Julian L. Baker, J. Addyman Gardner, and George Rudd Thompson, who completed 50 years of Fellowship on May 4th.

ACKNOWLEDGMENT.

The thanks of the Council have been conveyed to Sir Prafulla C. Rây for a contribution to the Library.

ADDITIONAL MEMBER OF COUNCIL.

Dr. H. J. T. Ellingham has been appointed as an additional Member of Council.

LOCAL REPRESENTATIVE FOR SHEFFIELD.

The Council have received with great regret the resignation of Dr. A. W. Chapman from the office of Local Representative for Sheffield, and have conveyed their cordial thanks to him for the valuable services he has rendered to the Society.

Dr. Brynmor Jones has been appointed to this office.

JOINT COMMITTEE ON THE TEACHING OF CHEMISTRY.

Dr. C. W. Davies, Dr. F. Fairbrother and Mr. D. Ll. Hammick have been appointed to represent the Society on the Joint Committee formed at the instigation of the Science Masters' Association to consider the teaching of Chemistry in Secondary Schools.

COMMITTEES.

The Council have conveyed their thanks to the retiring members of Committees for the services they have rendered to the Society.

The following Committees have been appointed for 1943—1944 :

Finance and General Purposes Committee.

F. H. Carr, A. E. Dunstan, Sir Alfred Egerton, H. J. T. Ellingham, G. I. Finch, R. G. W. Norrish, Sir Robert Pickard, R. E. Slade, together with the Officers, the Chairman of the Publication Committee and the representative of the Joint Library Committee on the Council of the Chemical Society. The President as Chairman, Treasurer as Vice-Chairman, and the General Secretary as Secretary.

Publication Committee.

T. S. Moore as Chairman, N. K. Adam, A. J. Allmand, R. P. Bell, E. J. Bowen, H. V. A. Briscoe, J. E. Coates, J. W. Cook, H. J. Emel us, W. E. Garner, J. M. Gulland, C. R. Harington, G. S. Hartley, R. D. Haworth, I. M. Heilbron, T. A. Henry, D. H. Hey, E. L. Hirst, E. D. Hughes, J. Kenyon, F. G. Mann, H. W. Melville, A. Robertson, J. L. Simonsen, J. C. Smith, S. Sugden, A. R. Todd, together with the Officers, and the Editor as Secretary.

Research Fund Committee.

N. K. Adam, A. J. Allmand, J. E. Coates, J. W. Cook, I. M. Heilbron, H. McCombie, J. Kenyon, Sir Robert Robinson, A. R. Todd, together with the Officers. The President as Chairman, and the General Secretary as Secretary.

Publications Exchange Committee.

A. J. Allmand, H. Bassett, J. Kenyon, G. A. R. Kon, together with Dr. T. A. Henry (ex-officio representative of the Joint Library Committee on the Council) and the Officers, with the Librarian as Secretary.

FELLOWSHIP.

The following 34 candidates were elected Fellows on May 20th :

John Agnew.	Joyce Eleanor Fildes.	James Stark Moffatt.
Mary Andross.	Graham Alfred Freake.	Neville Mower.
Anthony William D'Aubigny	Charles Lester Gabriel.	Stanley Alexander James Murray.
Avison.	Edward George Gazzard.	Gordon Arthur William Pike.
Elise Grace Baker.	John Parker Gill.	Herbert Peace Raine.
Kenneth Booth Belcher.	Kenneth Darling Grice.	Albert Douglas Sill.
Peter Brown.	Lawrence Melvin Henderson.	Walter MacFarlane Smith.
Roger Castle.	Thomas Leslie Houghton.	Colin Stevenson.
William Clamp.	John Christopher Hudson.	Maurice Arthur Holden Tincker.
Henry Pearse Clement.	Eric Mitchell Learmonth.	William Percival Walters.
Edgar Cone.	Jack Mann.	Robert Louis Wormell.
Sidney Douglas Eagleton.	Archibald Carswell Melville.	

LIST OF APPLICATIONS FOR FELLOWSHIP.

(Fellows wishing to lodge objections to the election of these candidates should communicate with the Honorary Secretaries not later than Monday, June 14th, 1943. Such objections will be treated as confidential. The forms of application are displayed in the Library.)

- *Aiton, Sheina Doris, B.Sc.Hons. (Glas.). British. 60, Hags Road, Glasgow, S. 1. Chemist. Signed by : de B. Ashworth, H. E. Jackson, W. J. Wilson.
- †Alcock, Robert Saxelby, M.A. and Ph.D. (Cantab.), A.I.C. British. 7, Chaucer Close, Penarth. Analyst. Signed by : L. J. Harris, J. R. Nicholls, J. G. A. Griffiths.
- *Bell, Stanley Harding, 3rd year Hons. Chem., University of Durham. British. 37, Beatty Avenue, North Jesmond, Newcastle-on-Tyne, 2. Undergraduate. Signed by : Wesley Cocker, G. R. Clemo, R. Raper.

* Reduced annual subscription.

† Three-body.

- †**Bishop, Edmund**, B.Sc.Hons. (Glas.), A.R.T.C., A.I.C. English. 93, Gauldry Avenue, Cardonald, Glasgow, S.W. 2. Experimental Officer. *Signed by* : I. Vance Hopper, A. B. Crawford, F. J. Wilson.
- †**Broomhall, Harry Raymond**, B.Sc. (Bristol), A.I.C. British. Stevenston. Civil Servant. *Signed by* : W. F. Bennett, J. McG. Jackson, R. Leslie Collett.
- †**Bull, Lawrence Stanley**, B.Sc. (Lond.), A.I.C. British. 47, Chester Avenue, Cranham, Upminster. Research Chemist. *Signed by* : C. G. Smith, Ernest A. Rudge, F. L. Allen.
- ***Carasso, Iseo Isaac**. Greek. Ronwyn, Ashford Road, Hinckley. 2nd year Honours Chemistry Student at Leicester University College. *Signed by* : L. Hunter, A. Hickling, C. K. Tinkler.
- ***Coates, John William**, Student for B.Sc. (Lond.). British. 55, Attimore Road, Welwyn Garden City. Research Assistant. *Signed by* : Laurence M. Smith, J. W. C. Crawford, R. G. Heyes.
- Granichstaden, Heinz**, Ph.D. (Edin.). Austrian. 2, The Valley Green, Welwyn Garden City. Research Chemist. *Signed by* : Laurence M. Smith, J. W. C. Crawford, E. G. Percival.
- †**Harrison, Guy Warwick**, B.Sc. (Lond.), A.I.C. British. 72, Chaddesden Lane, Chaddesden, Nr. Derby. Works Chemist. *Signed by* : Alex. Findlay, A. L. Bacharach, R. Leslie Collett.
- ‡**Hayward, Leonard Raymond**. British. 44, Langley Broom, Langley, Nr. Slough. Research Chemist (Starch, adhesives and dehydration of foods). *Signed by* : Thomas McLachlan, M. J. Curran, F. A. Lyne.
- †**Hind, Stanley Reginald**, B.Sc.Hons. (Lond.), A.R.C.S., F.I.C. English. Rose Hill House, Clifton, Nr. Manchester. Consultant to the Ceramic Industry. *Signed by* : H. V. Thompson, F. H. Clews, H. M. Richardson.
- ***Holdstock, Michael Douglas**. British. 18, Church Lane, Leytonstone, E. 11. Student (Special B.Sc. in Chemistry). *Signed by* : R. W. Jukes, H. Holmes, I. L. Finar.
- ***Kinns, Ronald Sydney**. British. 3, Gimson Road, Leicester. 3rd year Honours Chemistry Student at University College, Leicester. *Signed by* : L. Hunter, A. Hickling, C. K. Tinkler.
- Latimer, William**, M.P.S. Pharmacist. British. 14, Wandsworth Road, Newcastle-on-Tyne, 6. Medical Student at King's College, Newcastle-on-Tyne. *Signed by* : J. J. Blackie, G. Perrins, W. A. Beattie.
- †**Lawrence, Samuel George**, B.Sc. (Lond.), A.I.C. English. 27, Granby Road, Mile End, Stockport. Head of the Department of Chemistry, Stockport College for Further Education. *Signed by* : John Graymore, J. G. Finlayson, F. E. Rymill.
- Lennard, Jack**. British. Anlaby Road, Hull. Assisting in General Chemistry. *Signed by* : S. Burnley, R. H. Williams, Harry Thompson.
- Lewis, Frank Basil**, B.Sc. and Ph.D. (Lond.), D.I.C., M.P.S. British. The Hall, 5, Foxes Dale, Blackheath, S.E. 3. Research Chemist. *Signed by* : I. M. Heilbron, A. H. Cook, E. R. H. Jones.
- ***McKay-Ohm, Daphne Patricia**, B.A.Hons. (Cantab.). British. Colyford, Colyton. Research Student. *Signed by* : M. L. Tomlinson, A. J. Berry, W. J. Palmer.
- †**McCanlis, Arthur William Hepburne**, M. A. (Cantab.), A.I.C., R.A.Inst.W.E. British. 45 Eaton Road, Sutton. Chemist and Bacteriologist, Sutton District Water Coy. *Signed by* : S. H. Cakebread, J. E. Coppock, R. Leslie Collett.
- ***Phillips, Leslie Nathan**. British. 7, Redlands Road, Reading. Research Assistant to the Advisory Entomologist. *Signed by* : J. R. Partington, V. A. Petrow, David Mess.
- †**Pitts, Frank**. M.A. (Cantab.), A.I.C. British. The Gables, Brookfield Road, Lymm. Research Chemistry. British Aluminium Co., Ltd. *Signed by* : Thomas C. Pearson, W. H. Hadley, H. W. L. Phillips.
- ***Reynolds, Norman George**. British. 191, Brandon Street, Leicester. 2nd year Honours Chemistry Student, University College, Leicester. *Signed by* : L. Hunter, C. K. Tinkler, A. Hickling.
- †**Rodnight, Eric Wakelin**, B.Sc. (Lond.). British. 58, Belle Vue Grove, Middlesbrough. Plant Manager and Technical Assistant. *Signed by* : A. J. Prince, K. W. Gee, Michael H. M. Arnold.
- Sheridan, John**, B.A. (Oxon.). British. Lincoln College, Oxford. Research Student. *Signed by* : D. Ll. Hammick, N.V. Sidgwick, S. G. P. Plant.
- †**Stevens, Sidney George Edward**, B.Sc. (Lond.), F.I.C. British. 123, Coldharbour Lane, Camberwell, S.E. 5. Analytical and Consulting Chemist. *Signed by* : C. Edward Sage, D. C. Garratt, H. E. Cox.
- †**Waite, Deryck Woodrow Henry**, B.Sc.Hons. (Lond.), A.I.C. British. 18, Hamboro Gardens, Leigh-on-Sea. Observer, Fleet Air Arm. *Signed by* : Leslie H. Lampitt, E. B. Hughes, P. Bilham.
- Wills, Eric Douglas**, B.Sc.Hons. (Lond.), A.I.C. British. 55, Semley Road, Norbury, S.W. 16. Lieut. (Technical Officer) in the R.E.M.E. *Signed by* : W. H. Patterson, J. R. Partington, H. D. K. Drew.
- ***Wolstencroft, John Hollas**. Nat. Sci. Trip. Pt. I. of Cambridge University passed in 1942. Inter B.Sc., Manchester University taken in 1940. British. Starholm, Nether Wasdale. Experimental Assistant. *Signed by* : Albert Taylor, E. G. Cowley, S. Hornsby.

UNDER SPECIAL PROVISION APPERTAINING TO CANDIDATES RESIDENT ABROAD.

- ‡**Bratton, George S.**, A.B. (Tenn.), M.S. (Pittsburgh). American. Anheuser-Busch Inc., 721, Pestalozzi Street, St. Louis. Director of Laboratories. *Signed by* : Foster Dee Snell.
- †**Dyson, Watson Harold**, M.A. (Cantab.), F.I.C. British. Norman House, Ispingo Beach, Natal. Chemist. *Signed by* R. Leslie Collett.
- Fickers, Bernard Albert, Rev.**, S.J., A.M. and M.Sc. (Boston), Ph.D. (Clark). American. Department of Chemistry, Holy Cross College, Worcester, Mass. Chairman of Holy Cross College. *Signed by* : F. O. Rice.
- ‡**Nevin, James Victor**, Ph.D. (Heidelberg), Registered Pharmacist State of California, Inventor of numerous Patents pertaining to synthetic resins. From 1913—1916, acted as Chemist to California State Board of Pharmacy. American. 832, S.W. Westwood Drive, Portland, Oregon. Research Chemical Engineer. *Signed by* : Foster Dee Snell.

* Reduced annual subscription.

† Three-body.

‡ Two-body.

PAPERS RECEIVED.

List of papers received between April 16th and May 20th, 1943. (This list does not include the titles of papers which have been read at a Scientific Meeting or which have appeared in the *Journal*.)

- "Further observations on the optically active α -dimethylallyl alcohols." By M. P. BALFE, H. W. J. HILLS, J. KENYON, H. PHILLIPS, and B. C. PLATT.
- "(Note.) Some ethers of 4-chloro-2-nitro-3:5-dimethylphenol." By BRYNMOR JONES.
- "The chemistry of 2:4-diarylpyrroles. Part I. Synthesis of 2:4-diarylpyrroles and 2:2':4:4'-tetra-arylazadipyrromethines." By M. A. T. ROGERS.
- "The chemistry of 2:4-diarylpyrroles. Part II. Methines." By M. A. T. ROGERS.
- "The chemistry of 2:4-diarylpyrroles. Part III. 3-Amino-2:4-diphenylpyrrole." By M. A. T. ROGERS.
- "The absorption spectra of some meta-substituted phenols, and the influence of nucleophilic substituents on electronic mobility." By H. H. HODGSON.
- "Union of aryl nuclei. Part VI. Reactions with 1-aryl-3:3-dimethyltriazenes." By J. ELKS and D. H. HEY.
- "Relationships between the surface tensions, densities, and critical constants of liquids." By D. T. LEWIS.
- "The heat of adsorption of ethyl chloride and of sulphur dioxide on sugar charcoal." By S. J. GREGG.
- "Cinnolines. Part II. The influence of substituents on the Widman-Stoermer and Pschorr reactions." By J. C. E. SIMPSON.
- "(Note.) Alkyl-oxygen fission in sulphinic esters." By M. P. BALFE, J. KENYON, and A. L. TÁRNOKY.
- "The *Senecio* alkaloids. Part I. Rosmarinine." By (Miss) M. F. RICHARDSON and F. L. WARREN.
- "The preparation of the 4-halogeno-2-naphthols and of 4-nitro-2-naphthol, with a note on the resonance structure of the internal diazo-oxides (diazo-naphthols)." By H. H. HODGSON and S. BIRTWELL.
- "An experimental study of chromatography." By H. WEIL-MALHERBE.
-

PROCEEDINGS
OF THE
CHEMICAL SOCIETY.

OFFICIAL ANNOUNCEMENTS

DEATHS.

The Council regret to announce the deaths of the following Fellows :

	Elected.	Died.
Charles Ridgway Beck	1890	May 4th, 1943
William Arthur Harrison Naylor	1878	May 30th, 1943
John Scott Thomson	1912	April 4th, 1943

CONGRATULATIONS.

The congratulations of the Council have been conveyed to the following Fellows, whose names appeared in the Birthday Honours List :

Professor J. N. Mukherjee	C.B.E.
Professor F. H. Garner	O.B.E.

and to the following, who have completed 60 and 50 years of Fellowship :

60 years of Fellowship.

	Elected.
Rowland Williams	June 21st, 1883.

50 years of Fellowship.

Robert Saunderson Cahill	June 15th, 1893.
John Henry Coste	" "
Charles Mills	" "
John Watson Napier	" "
Henry Thomas Sorrell	" "
Frank Ernest Thompson	" "

ACKNOWLEDGMENTS.

The Council have expressed their thanks to Professor E. L. Kennaway for presenting a small replica of a portrait medallion presented to the late Professor Albrecht Kossel on his 60th birthday, and to Messrs. G. P. Forrester and E. A. Rayner for presenting volumes of the *Journal of the Chemical Society*.

RESEARCH GRANT.

The Council have made the following grant from the Research Fund :

The alkaloids of *Gelsemium Sempervirens* (T. S. Stevens) £10 0 0

ANNUAL REPORTS FOR 1942.

It is hoped that Volume XXXIX of the *Annual Reports* (1942) will be issued shortly.

FELLOWSHIP.

The following 32 candidates were elected Fellows on June 17th :

Sheina Doris Aiton.	Heinz Granichstaden;	James Victor Nevin.
Robert Saxelby Alcock.	Guy Warwick Harrison.	Leslie Nathan Phillips.
Stanley Harding Bell.	Leonard Raymond Hayward.	Frank Pitts.
Edmund Bishop.	Stanley Reginald Hind.	Norman George Reynolds.
George S. Bratton.	Michael Douglas Holdstock.	Eric Wakelin Rodnight.
Harry Raymond Broomhall.	Ronald Sydney Kinns.	John Sheridan.
Lawrence Stanley Bull.	William Latimer.	Sidney George Edward Stevens.
Iseo Isaac Carasso.	Samuel George Lawrence.	Deryck Woodrow Henry Waite.
John William Coates.	Frank Basil Lewis.	Eric Douglas Wills.
Watson Harold Dyson.	Arthur William Hepbune McCanlis.	John Hollas Wolstencroft.
Bernard Albert Fiekers.	Daphne Patricia McKary-Ohm.	

GENERAL ANNOUNCEMENT

PROPOSED SENTER PHYSICAL CHEMISTRY LABORATORY.

It is proposed to commemorate the work of the late Dr. George Senter, Principal of Birkbeck College from 1918-1939, by founding in his honour a Laboratory for the purpose of research in Physical Chemistry in the new College buildings. Donations, large or small, may be sent to Mr. H. Gordon Jackson, Acting Master, Birkbeck College, Breams Buildings, E.C.4.

LIST OF APPLICATIONS FOR FELLOWSHIP

(*Fellows wishing to lodge objections to the election of these candidates should communicate with the Honorary Secretaries not later than Monday, July 12th, 1943. Such objections will be treated as confidential. The forms of application are displayed in the Library.*)

- †**Aherne, John Christopher**, M.Sc. and H.Dip.Ed. (N.U.I.), A.I.C. Irish. 5, Glendalough Park, The Lough, Cork. Head of the Chemistry Department, Crawford Municipal Technical Institute, Cork. *Signed by* : Michael A. Fielding, P. J. Fielding, J. Reilly.
- Barnett, Jean Winifred**, M.Sc. (Lond.), D.Sc.Techn. (Zürich). British. 46, Aberdare Gardens, Maida Vale, N.W. 6. Senior Research Assistant, Research Department, Glaxo Laboratories, Ltd. *Signed by* : F. A. Robinson, A. L. Bacharach, B. Arthur Hems.
- †**Barron, Harry**, B.Sc. and Ph.D. (Lond.), F.I.C., A.I.R.I. British. Spinney Corner, Bassett Avenue, Southampton. Head of Plastics Development Department of a Works. *Signed by* : N. K. Adam, S. H. Harper, K. R. Webb.
- †**Bennett, Sidney Frank**, B.Sc. (Lond.), A.I.C. British. Mill House, Dole Lane, Chorley. Analytical Chemist. *Signed by* : Cecil L. Wilson, R. Leslie Collett, J. K. Stuart.
- †**Chapman, William Bernard**, A.I.C. (examination passed but not yet elected). British. 47, Otter Street, Derby. Junior Assistant, Analyst Dept. County Offices, St. Mary's Gate, Derby. *Signed by* : J. Ratcliffe, R. W. Sutton, J. Markland.
- †**Collison, William**. British. West Mount, Stanhill, Oswaldtwistle. Managing Director of W. Blythe & Co., Ltd., and John Riley & Sons, Ltd. *Signed by* : W. Boardman, W. H. Bentley, H. Heron.
- †**Elce, Alec**, B.Sc.Hons. (Lond.). British. 30, Burghwood, Banstead. Research Chemist. *Signed by* : H. Langwell, C. B. Maddocks, Henry R. Archer.
- Farage, Francis Fredrick**. Chemical Manufacturer. British. 27, Brayton Avenue, Didsbury, Manchester, 20. Director and General Manager of Cumming, Parsons, Ltd., Manchester, 9 (a firm of Manufacturing Chemists). *Signed by* : Gavin Lawson, A. F. Mason, J. W. Reidy.
- Gledhill, Harold**. Forty years Manufacturing Chemist. British. Mayfield, Argomeols Road, Freshfield, Liverpool. Managing director of two Companies engaged on Galenicals and foods. *Signed by* : Gavin Lawson, A. F. Mason, J. W. Reidy.
- †**Hartley, Edward Arthur**, A.I.C. British. 7, Stumperlowe Mansions, Sheffield, 10. Manager and Research Chemist, Mellows & Co., Ltd., Plastic Department. *Signed by* : S. R. Carter, Garfield Thomas, Geo. King.
- †**Illing, Edward Thomas**, B.Sc. (Lond.), F.I.C. British. Fuzzy Dee, Broadlands Way, Taunton. Deputy Public Analyst and Bacteriologist. *Signed by* : F. P. Dunn, R. Leslie Collett, Lewis Eynon.
- †**Jackson, Thomas Worthington**, B.Sc. (Lond.), A.I.C. British. 23, Squirrels Heath Lane, Gidea Park, Romford. Research Chemist. *Signed by* : H. Drake Law, J. H. Seager, Douglas F. Anstead.
- James, John Edmund**, A.I.C. British. 2, Waldegrave Court, Waldegrave Gardens, Upminster. Chief Works Chemist. *Signed by* : E. R. Redgrove, A. E. Dunstan, Harold Moore, E. A. Evans.
- Jones, Richard**, Assoc. M.Inst.Gas Eng. British. Elmhurst, Stanley Park, Rhyl. Technical Assistant Engineer and Chemist to the Rhyl U.D. Council, Gas and Water Department. *Signed by* : O. P. Cronshaw, R. O. Roberts, Thos. Haworth.
- Lerner, Max**. Stateless. Columbia House, Aldwych, W.C. 2. Chemical Adviser and Director-Proxy of J. C. Gilbert, Ltd. *Signed by* : W. M. Seaber, A. C. Davall, George Taylor.
- †**Lockett, William Thomas**, B.Sc.Hons. and M.Sc. (Manc.), Grocers' Company Research Scholar (Sanitary Science), 1914-1917. British. West Middlesex Main Drainage, Mogden Works, Isleworth. Chief Chemist. *Signed by* : Percy F. Frankland, W. N. Haworth, R. Robinson.
- Osborn, George Howard**. British. Chiltern House, 101 Walton Road, Aylesbury. Author of several publications in leading scientific journals. Member of Mineralogical Society. Delivered lecture on "The British Fluorspars" to this Society on November 5th, 1942. *Signed by* : Max H. Hey, R. Barrington Brock, R. C. Chirnside.
- Ottenstein, Herta Dora**, Ph.D. (Pavia), State Examination (Florence). Stateless. 30, Frogna Court, 160, Finchley Road, N.W. 3. Industrial and Research Chemist. *Signed by* : Leo Ivanovszky, K. Strauss, F. Hiller.
- ***Parker, Leslie Frederick John**, Inter.B.Sc., B.Sc.(Subsid.) Maths. British. 34, St. David's Hill, Exeter. Reading for Honours Degree in Chemistry to be taken in June, 1943. *Signed by* : H. T. S. Britton, S. J. Gregg, R. King.
- †**Pates, Edward William**, M.Sc. (Lond.), F.I.C. A.M.I.Chem.E., F.I.I.A. British. 19, West Lodge Court, Uxbridge Road, West Acton, W. 3. Chemist and Chemical Engineer, Glaxo Laboratories, Ltd. *Signed by* : E. Lester Smith, A. L. Bacharach, F. A. Robinson.
- ***Richards, Rex Edward**. Studying for Honour School of Chemistry, Oxford. British. St. John's College, Oxford. Student. *Signed by* : Ronald P. Bell, H. W. Thompson, C. N. Hinshelwood.
- †**Scaife, Charles William**, B.Sc.Hons. and Ph.D. (Leeds), Dip. Ed. British. 5, Newlands Avenue, Norton Road, Stockton-on-Tees. Research Chemist, Imperial Chemical Industries. *Signed by* : A. J. Prince, A. E. Wilder Smith, R. H. Stanley.
- †**Southwood, John**, A.I.C. British. 156, Derby Road, Widnes. Chemist. *Signed by* : R. R. Butler, A. E. Findley, Eric J. Holland.

- ***Topham, Arthur**, B.Sc.Hons. (Lond.), A.I.C. British. 17, Broxton Avenue, Daubhill, Bolton. Taking Ph.D. course at Manchester University. *Signed by* : Ronald Cuthill, B. Lythgoe, A. R. Todd.
- Treadwell, Ronald Henry**, Fellow of the Institute of Medical Laboratory Technology. British. 19, Greenway, Wells Estate, Epsom. Pathological Laboratory Technician, and in charge of E.M.S. Laboratories, Sutton Emergency Hospital. *Signed by* : Mollie E. Heppenstall, E. R. Dawson, Cyril A. Brighton.
- ***Turner, Michael John Frederick**, Inter.B.Sc. and Subsid. Physics. B.Sc. (Lond.). British. Connaught Hall, Wessex Lane, Swaythling, Southampton. Student. *Signed by* : N. K. Adam, S. H. Harper, Ishbel G. M. Campbell.
- †**Welsh, Joseph Peter**, B.Sc.Hons. (Dun.), A.I.C. British. 28, Sutton Court Road, Sutton. Research Chemist. *Signed by* : J. Lloyd Bentley, H. L. Riley, Richard Raper.
- †**Whitehead, John Kenneth**, M.Sc. (Lond.), A.R.C.S., D.I.C., A.I.C. British. 10, Barkston Gardens, S.W. 5. Temporary Chemist at Government Laboratory. *Signed by* : J. R. Nicholls, J. G. A. Griffiths, B. A. Ellis.
- †**Whittle, Ernest George**, B.Sc. (Lond.), F.I.C. British. Rockleigh, Wilton Street, Taunton. Analytical Chemist and Bacteriologist to the Somerset County Council. *Signed by* : Alex Findley, R. Leslie Collet, E. L. Hirst.
- †**Williams, Frank Ronald**, Ph.D. and B.Sc.Hons. (Lond.), F.I.C. British. 15, North Albert Road, Norton, Stockton-on-Tees. Chief Analyst, The British Titan Products Co., Ltd. *Signed by* : A. Eric J. Vickers, G. I. Higson, H. L. Riley, R. W. Ancrum.
- ***Williams, John Glenydd Eirwyn**, B.Sc.Hons. (Wales), A.I.C. British. Cil-Mynach, Barmouth. Superintendent Chemist. *Signed by* : J. L. Simonsen, G. R. Ramage, O. L. Brady, L. F. Gilbert.

UNDER SPECIAL PROVISION APPERTAINING TO CANDIDATES RESIDENT ABROAD.

- ‡**Hosford, Charles Franklin, Jr.**, B.D. (Princeton), LL.B. (Harvard). American. Pennsylvania Coal Products Co., Petrolia, Penn. President and General Manager of Pennsylvania Coal Products Co. *Signed by* : Foster Dee Snell.
- †**Stroud, Richard Harris**, B.Sc.Hons. (Sydney). British. Dalveen, 11, Chalmers Road, Strathfield, Sydney, N.S.W. Plant Superintendent, Chemical Munitions Annexe. *Signed by* : J. C. Earl.

* Reduced annual subscription.

† Three-body.

‡ Two-body.

PAPERS RECEIVED.

List of papers received between May 20th and June 17th, 1943. (This list does not include the titles of papers which have been read at a Scientific Meeting or which have appeared in the *Journal*.)

- "The course of autoxidation reactions in polyisoprene and allied compounds. Part III. The oxidation of rubber in the presence of acetic acid or acetic anhydride." By G. F. BLOOMFIELD.
- "Heterocyclic nitrogen compounds. Part I. Some derivatives of 7 : 16-diazanaphthacene." By H. H. HATT and (MISS) E. F. M. STEPHENSON.
- "The influence of alkylation on the reactions of acid derivatives in the Friedel-Crafts synthesis." By E. ROTHSTEIN and M. A. SABOOR.
- "The determination of dissociation constants of monobasic acids. Part II. The extrapolation method." By D. J. G. IVES and K. SAMES.
- "The determination of dissociation constants of monobasic acids. Part III. The strengths of some cyano-acids." By D. J. G. IVES and K. SAMES.
- "Derivatives of 1 : 2 : 4 : 5-tetrachlorobenzene. Part II. *N*-Nitro-amino-compounds." By A. T. PETERS, F. M. ROWE, and D. M. STEAD.
- "Evidence in favour of the sulphite and sulphonate structures for Hantzsch's potassium benzene-*syn*- and *anti*-diazosulphonates." By H. H. HODGSON and E. MARSDEN.
- "The preparation of 2 : 3-dinitronaphthalene and of 3-nitro-2-naphthylamine." By H. H. HODGSON and H. S. TURNER.
- "New therapeutics of the quinoline series. Introduction and Part I. Monopyridylquinolines." By H. COATES, A. H. COOK, I. M. HEILBRON, D. H. HEY, A. LAMBERT, and (in part) F. B. LEWIS.
- "New therapeutics of the quinoline series. Part II. Dipyrindylquinolines." By A. H. COOK, I. M. HEILBRON, D. H. HEY, A. LAMBERT, and (in part) A. SPINKS.
- "New therapeutics of the quinoline series. Part III. Methoxy-, hydroxy-, and alkyl-pyrindylquinolines." By H. COATES, A. H. COOK, I. M. HEILBRON, D. H. HEY, A. LAMBERT, and (in part) F. B. LEWIS.
- "New therapeutics of the quinoline series. Part IV. Lutidylquinolines." By A. H. COOK, I. M. HEILBRON, and L. STEGER.
- "New therapeutics of the quinoline series. Part V. Pyridylacridines." By A. H. COOK, I. M. HEILBRON, and A. SPINKS.
- "New therapeutics of the quinoline series. Part VI. Quinoyl thiazoles, amidines, and pyrroles." By H. COATES, A. H. COOK, I. M. HEILBRON, and F. B. LEWIS.
- "Experiments on the synthesis of purine nucleosides. Part I. Model experiments on the synthesis of 9-alkyl-purines." By J. BADDILEY, B. LYTHGOE, D. McNEIL, and A. R. TODD.

- “Experiments on the synthesis of purine nucleosides. Part II. A new and convenient synthesis of adenine.” By J. BADDILEY, B. LYTHGOE, and A. R. TODD.
- “Some reactions of amidines with derivatives of malonic acid.” By G. W. KENNER, B. LYTHGOE, A. R. TODD, and A. TOPHAM.
- “The polymerisation of acetaldo.” By L. N. OWEN.
- “The oxygenation of crotonaldehyde.” By L. N. OWEN.
- “The Diels–Alder synthesis with 2 : 3-dimethylquinoxaline. The reaction between maleic anhydride and anthranil.” By A. SCHÖNBERG and A. MOSTAFA.
-

PROCEEDINGS

OF THE

CHEMICAL SOCIETY.

OFFICIAL ANNOUNCEMENTS

DEATHS.

The Council regret to announce the deaths of the following Fellows :

	Elected.	Died.
Alfred Archibald Boon	1914	April 1st, 1943
Samuel Felix Dufton	1893	June 24th, 1943.
Bedo Hobbs	1883	December 27th, 1939.
Walter George Messenger	1941	May 3rd, 1943.

ACKNOWLEDGMENTS.

The thanks of the Council have been conveyed to Dr. Alexander Scott for presenting an album of photographs of distinguished Chemists and sets of the Journal and Abstracts A, and to Mr. T. McLachlan for a contribution to the Publications Fund.

FELLOWSHIP.

The following 31 candidates were elected Fellows on July 14th :

John Christopher Aherne.	John Edmund James.	John Southwood.
Jean Winifred Barnett.	Richard Jones.	Richard Harris Stroud.
Harry Barron.	Max Lerner.	Arthur Topham.
Sidney Frank Bennett.	William Thomas Lockett	Ronald Henry Treadwell.
William Bernard Chapman.	George Howard Osborn.	Michael John Frederick Turner.
William Collison.	Herta Dora Ottenstein.	Joseph Peter Welsh.
Alec Elce.	Leslie Frederick John Parker.	John Kenneth Whitehead.
Edward Arthur Hartley.	Edward William Pates.	Ernest George Whittle.
Charles Franklin Hosford.	Rex Edward Richards.	Frank Ronald Williams.
Edward Thomas Illing.	Charles William Scaife.	John Glenydd Eirwyn Williams.
Thomas Worthington Jackson.		

LIST OF APPLICATIONS FOR FELLOWSHIP

(Fellows wishing to lodge objections to the election of these candidates should communicate with the Honorary Secretaries not later than Monday, August 16th, 1943. Such objections will be treated as confidential. The forms of application are displayed in the Library.)

- ***Amphlett, Colin Bernard**, B.Sc.Hons. (Birm.). British. 77, Dudley Wood Road, Cradley Heath. Research Chemist, University of Birmingham, reading for degree of Ph.D. *Signed by* : Stanley Peat, W. N. Haworth, M. Stacey.
- Avrill, Charles Rochford**. Written Papers on Plumbago and Carbon Compounds. British. 22, Duchy Street, S.E. 1. Graphite products manufacturer. *Signed by* : Walter Lloyd Willey, O. T. Baldwin, John Knaggs.
- ***Baker, Brian Patrick**, A.I.C. British. 10, Ripplevale Grove, Barnsbury, N. 1. Research Chemist. *Signed by* : E. de Barry Barnett, F. G. Sayer, N. A. C. Pryce.
- ***Blacklock, John Kenneth**. British. 6, Hauxley Gardens, Newcastle-upon-Tyne, 5. 3rd Year Honours Chemistry Student, University of Durham. *Signed by* : Wesley Cocker, Richard Raper, G. R. Clemo.
- ***Bourne, Edward John**, B.Sc.Hons. (Birm.). British. 15, Victoria Street, Cannock. Research Student at Birmingham University. *Signed by* : Stanley Peat, W. N. Haworth, M. Stacey.
- ***Carroll, Thomas Cyril Nicholas**. After 1 year in Forces, B.A. (wartime), 2nd Class Hon. Mods. (Nat. Sci.) Oxon. and special examination in Chemistry with Advanced Paper. English. Christ Church, Oxford. R. Corps. Signals. *Signed by* : Ronald P. Bell, A. S. Russell, F. E. King.
- ***Chackett, Kenneth Frederick**, B.Sc. (Birm.). British. 47, Allport Road, Cannock. Research Chemist reading for degree of Ph.D. *Signed by* : M. Stacey, Stanley Peat, W. N. Haworth.
- ***Childs, Anthony Francis**, B.A. (Oxon.). British. 7, Polstead Road, Oxford. Research in Organic Chemistry for the Ministry of Supply. *Signed by* : Ronald P. Bell, S. G. P. Plant, N. V. Sidgwick.
- †**Daniel, Francis William**, B.Sc.Hons. (Lond.), A.I.C. 5 Years' Industrial Research. British. 205, Gunnersbury Lane, Acton, W. 3. Flying Officer, Technical (Armament) Branch R.A.F.V.R. Normally employed by Gas Light & Coke Company. *Signed by* : H. Hollings D. J. G. Ives, F. Barrow.

- ***Dawson, Ian McPhail**. British. Euroa, Tighnabruaich, Argyll. Student of Chemistry. *Signed by* : James Bell, George Thomson, David T. Gibson.
- Dean, John Alfred**, B.Sc. (Birm.). British. 18, Ashgrove, Ripon. Technical Officer, H.M.S. *Ferret*, Sub.-Lt. R.N.V.R. *Signed by* : W. N. Haworth, M. Stacey, Stanley Peat.
- Evans, Alwyn Gwynne**, M.Sc. and Ph.D. (Manc.). British. 9, Waller Avenue, Fallowfield, Manchester. Assistant Lecturer in Chemistry, Manchester University. *Signed by* : J. B. M. Herbert, G. N. Burkhardt, Colin Campbell.
- Forrest, Hugh Sommerville**. British. 1389, Pollokshaws Road, Glasgow, S. 1. 3rd Year Student at Glasgow University studying for B.Sc. (Pure Science) Hons. in Chemistry. *Signed by* : John A. Mair, George Thompson, Stotherd Mitchell.
- †**Garrett, Horace Edward**, A.I.C. British. 5, Martland Way, Wollavington, Bridgwater. *Signed by* : J. J. Fox, R. Leslie Collett, B. A. Ellis.
- †**Griffiths, John Preedy**, B.Sc. (Lond.), A.R.C.S., D.I.C., F.I.R.I., A.I.C. British. Shirley House, Pittville Circus Road, Cheltenham. General Manager and Technical Director. *Signed by* : J. J. Fox, B. A. Ellis, R. Leslie Collett.
- ***Hall, Reginald Harold**, B.Sc. (Lond.), A.R.C.S. British. 75, Surrey Grove, Sutton. Research Chemist, Imperial College of Science and Technology, S.W. 7. *Signed by* : A. H. Cook, E. R. H. Jones, J. A. Kitchener.
- †**Hetherington, John Arthur**, B.Sc. and Ph.D. (Dun.), A.I.C. British. White House, Lawford, Nr. Manningtree. Research Chemist. *Signed by* : Geoffrey Swann, P. S. Adamson, R. S. Colborne.
- Hinchley, John Ronald**, Intermediate Science and Matriculation (Lond.). English. 1, Albany Avenue, Higher Openshaw, Manchester, 11. Chemist and Physicist, Research Department at Container Manufacturers. *Signed by* : H. A. Thomas, J. Graymore, and R. Fraser Thomson.
- ***Judson, Joyce Muriel**, B.Sc. (Lond.). British. 5, St. Mary's Road, Crumpsall, Manchester, 8. Research Chemist. *Signed by* : K. B. Wilson, A. F. Crowther, Francis Irving.
- Lemin, Denis Ronald**, B.Sc. (Lond.). British. 88, Crumpsall Lane, Manchester, 8. Chemist with I.C.I. (Dyestuffs), Ltd. *Signed by* : Harold France, L. E. Luft, R. H. Peters.
- Moor, Edward**. Thorough practical experience in Chemical Works Control. English. Hillside, Sunny Bower, Tottington, Nr. Bury. Chemical Works Manager. 6 Years' Laboratory Assistant, Pease & Partners, Ltd. 2 Years' Senior Analyst, I.C.I. 12 Years' Plant Manager, Eaglescliffe Chemical Co. 2 Years' Works Manager, E. P. Potter & Co., Ltd. *Signed by* : H. E. J. Cory, E. J. Bond, A. W. Cowburn.
- ***Osborne, John Francis**. British. 24, Dashwood Road, Banbury. Studying Chemistry in Banbury County School (Sixth Form). *Signed by* : J. S. Carter, F. N. Ashcroft, W. J. Wilson.
- ***Pate, Norman Elliott**, B.Sc.Hons. (Edin.). British. Schoolhouse, St. Boswells. H.M. Forces. *Signed by* : E. G. V. Percival, Neil Campbell, Mowbray Ritchie.
- ***Pereira-Mendoza, Maurice**, B.Sc. (Lond.) to be awarded in 1943, A.R.C.S. British. 1, Holmwood Mansions, Uxbridge Road, Acton, W. 3. Chemist. *Signed by* : L. L. Katan, J. S. Bennett, Ronald H. Smith, M. Vahrman.
- ***Reid, Eric**, B.Sc.Hons. (Aberd.). British. Lister Institute, Chelsea Bridge Road, S.W. 1. Assistant Chemist (under Colonial Products Research Council). *Signed by* : J. Norman Davidson, J. E. Humphries, M. Bruce Watson.
- ‡**Ritchie, Gilbert Benjamin**, Pharmacist (M.P.S.). British. Auchenhabrig, Kilmacolm. Assistant Research Chemist, The Parozone Co., Ltd. *Signed by* : Henry G. A. Anderson, John A. Cranston, A. B. Crawford.
- †**Shaw, William**, B.Sc. and Ph.D. (L'pool), A.I.C. British. 30, Low Leighton, New Mills, Nr. Stockport. Analytical and Research Chemist. *Signed by* : J. J. Fox, B. A. Ellis, R. Leslie Collett.
- Smith, Cecil Harold**. Registered as an external student for B.Sc., London University. Society of Apothecaries Certificate. British. Squadron Leader, R.A.F.V.R. (Bomber Command). *Signed by* : T. F. M. Smart, Charles W. S. Taylor, H. D. Kay.
- ***Webb, Michael George**, B.Sc.Hons. (Birm.). British. Gres-Leigh, Burton Old Road, Lichfield. Research Student, Birmingham University. *Signed by* : M. Stacey, F. Smith, Stanley Peat.
- ‡**Wilkinson, Brian**. Northern Universities Matriculation with exemption from London University. British. 47, Tom Lane, Crosland Moor, Huddersfield. Works Chemist engaged in the manufacture of and research on Xanthene Sofranine and Triphenylmethane colours and the intermediates from which these colours are formed, at Messrs. L. B. Holliday & Co., Ltd., for which firm I have worked during the past ten years. *Signed by* : H. H. Hodgson, C. K. Crosland, Harry S. Greenwood.
- †**Willets, Arthur Kenneth**, B.Sc.Hons. (Birm.). English. 49, High Haden Road, Old Hill. Research Chemist to a steel-combine. *Signed by* : M. Stacey, F. Smith, S. P. James.
- †**Wilson, David Woodburn**, B.Sc.Hons. and M.Sc. (Q.U.B.), A.I.C. British. Experimental Officer, Research Department, Ministry of Supply. *Signed by* : Cecil L. Wilson, Fred Hudswell, R. Leslie Collett.
- Wrzeszinski, Gunter Wilhelm**, B.Sc. and Ph.D. (Lond.), A.R.C.S., D.I.C. German Refugee. 25b, Buckland Crescent, N.W. 3. Research Chemist at English Metal Powder Co. *Signed by* : H. V. A. Briscoe, A. A. Eldridge, H. J. T. Ellingham, H. J. Emeléus, Alexander King.

UNDER SPECIAL PROVISION APPERTAINING TO CANDIDATES RESIDENT ABROAD.

- ‡**Brooker, Stanley George**, M.Sc.Hons. (N.Z.). British. c/o Messrs. Abels, Ltd., P.O. Box 12, Newmarket, Auckland, N.Z. Chief Chemist. *Signed by* : L. H. Briggs, F. P. Worley.
- Piper, Harold Randolph Dyett**, M.P.S. British. 12, Harris Street, San Fernando, Trinidad, B.W.I. Chief Chemist, Tropical Medicine Laboratories, Ltd., Manufacturing Chemists, Port of Spain, Trinidad. *Signed by* : C. E. Corfield.

* Reduced annual subscription.

† Three-body.

‡ Two-body.

PAPERS RECEIVED

List of papers received between June 18th and July 23rd, 1943. (This list does not include the titles of papers which have been read at a Scientific Meeting or which have appeared in the *Journal*.)

- "Alkyl-oxygen fission in carboxylic esters. Part III. Esters of α -naphthylmethylcarbinol and phenylmethylcarbinol." By E. A. W. DOWNER, M. P. BALFE, and J. KENYON.
- "A note on the temperature dependence of the dissociation constants of amino-acids." By J. F. J. DIPPY and H. O. JENKINS.
- "The triterpene group. Part X. A continuation of Parts II and V." By J. C. E. SIMPSON and R. A. MORTON.
- "The halogenation of phenolic ethers and anilides. Part XIV. *m*-Substituted phenyl ethers." By BRYNMOR JONES.
- "Attempts to prepare optically active tervalent nitrogen compounds. Part II. 1:9-(2':3':4':5'-tetrahydrophenylene)carbazole." By R. W. G. PRESTON and S. HORWOOD TUCKER.
- "Rare-earth metal amalgams. Part IV. The isolation of europium." By J. K. MARSH.
- "Condensation products of phenols and ketones. Part VI. The conversion of an *o*-quinone into derivatives of pyrogallol." By WILSON BAKER and J. C. MCGOWAN.
- "The solid product of carbonisation." By G. MILNER, E. SPIVEY, and J. W. COBB.
- "The preparation of *p*-aminobenzaldehyde, with observations on the mechanism of the reactions of sodium polysulphides with *p*-nitrotoluene." By H. G. BEARD and H. H. HODGSON.
- "Analogues of pantothenic acid. Part III. Preparation of growth-inhibiting analogues related to pantooyl taurine." By MISS J. BARNETT.
- "Thiazinocyanines. Part III. Carbocyanines containing the *perinaphtha*-1:3-thiazine nucleus." By F. M. HAMER and R. J. RATHBONE.
- "The decomposition of diazotised 1:6-dinitro-2-naphthylamine by precipitated copper in solutions of various alcohols and organic solvents." By H. H. HODGSON and H. S. TURNER.
- "The preparation of 6-nitro-1-naphthol with improved methods for the decomposition of diazo-naphthols and some new reactions of nitronaphthols." By H. H. HODGSON and H. S. TURNER.
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THE CHEMICAL SOCIETY

NOTICE OF FORTHCOMING SCIENTIFIC MEETINGS

IN LONDON (Burlington House).

Thursday, October 21st, 1943, at 2.30 p.m.

Meeting for the reading of papers (further particulars will be announced).

Thursday, November 18th, 1943, at 2.30 p.m.

Lecture on "Wave Mechanics and Colour of Organic Compounds," by Mr. E. J. Bowen, M.A., F.R.S.

OUTSIDE LONDON.

EDINBURGH.

Tuesday, November 16th, 1943, at 7 p.m.

Lecture on "The Strength of Carbon Bonds," by Professor M. Polanyi, M.D., Ph.D. To be held in the Lecture Theatre of the University, Teviot Place.

GLASGOW.

Wednesday, November 10th, 1943, at 3.30 p.m.

Lecture on "Humour and Humanism in Chemistry," by Professor John Read, M.A., Sc.D., F.R.S. Joint Meeting with the Glasgow University Alchemists Club and the Andersonian Chemical Society. To be held in the Large Lecture Theatre of the Chemistry Department of the University.

Friday, December 3rd, 1943, at 7.15 p.m.

Lecture on "Some Aspects of the Formation of Ring Compounds," by Professor G. M. Bennett, M.A., Sc.D. To be held at the Royal Technical College.

LEEDS.

Tuesday, October 12th, 1943, at 6.30 p.m.

Lecture on "Autoxidation in Relation to Olefinic Structure," by Dr. E. H. Farmer, D.I.C., F.I.C. To be held in the Chemistry Lecture Theatre of the University.

LIVERPOOL.

Wednesday, September 15th, 1943, at 6.30 p.m.

Talk on "Problems affecting the Unity of Chemists," by Dr. A. E. Dunstan, F.I.C. Joint Meeting with the Royal Institute of Chemistry, the Society of Chemical Industry, and the British Association of Chemists. To be held at Reece's Restaurant, Parker Street.

NORTH WALES.

Friday, November 12th, 1943, at 5.30 p.m.

Lecture on "The Strength of Carbon Bonds," by Professor M. Polanyi, M.D., Ph.D. Joint Meeting with the University College of Bangor Chemical Society. To be given in the Chemistry Lecture Theatre of the College.

SHEFFIELD.

Friday, September 10th, 1943, at 5.30 p.m.

Lecture on "Some Aspects of Molecular Rearrangement," by Dr. A. W. Chapman, A.R.C.S., F.I.C.

Friday, November 12th, 1943, at 5.30 p.m.

Lecture on "Surface Films," by Professor N. K. Adam, M.A., Sc.D., F.R.S.

Both lectures to be held in the Chemistry Lecture Theatre of the University.

PROCEEDINGS

OF THE

CHEMICAL SOCIETY.

OFFICIAL ANNOUNCEMENTS

DEATHS.

The Council regret to announce the deaths of the following Fellows :

	Elected.	Died.
James Henry Allan	1886	6th April, 1941
William Robert Bousfield	1905	16th July, 1943
Archibald Alexander Neil	1930	19th July, 1943
George Walker	1912	23rd April, 1943

ACKNOWLEDGMENTS.

The thanks of the Council have been conveyed to the Royal Society for grants of £500 from the Rockefeller Foundation and £200 from the Parliamentary Grant in aid of Publications towards the cost of the Society's publications for 1943, and also to Messrs. Adam Hilger, Ltd., for presenting copies of the Society's publications.

FELLOWSHIP.

The following 35 candidates were elected Fellows of the Chemical Society on the 18th August, 1943 :

Colin Bernard Amphlett.	Alwyn Gwynne Evans.	Maurice Pereira-Mendoza.
Charles Rochford Averill.	Hugh Sommerville Forrest.	Harold Randolph Dyett Piper.
Brian Patrick Baker.	Horace Edward Garrett.	Eric Reid.
John Kenneth Blacklock.	John Preedy Griffiths.	Gilbert Benjamin Ritchie.
Edward John Bourne.	Reginald Harold Hall.	William Shaw.
Stanley George Brooker.	John Arthur Hetherington.	Cecil Harold Smith.
Thomas Cyril Nicholas Carroll.	John Ronald Hinchley.	Michael George Webb.
Kenneth Frederick Chackett.	Joyce Muriel Judson.	Brian Wilkinson.
Anthony Francis Childs.	Denis Ronald Lemin.	Arthur Kenneth Willetts.
Francis William Daniel.	Edward Moor.	David Woodburn Wilson.
Ian McPhail Dawson.	John Francis Osborne.	Gunter Wilhelm Wrzeszinski.
John Alfred Dean.	Norman Elliott Pate.	

LIST OF APPLICATIONS FOR FELLOWSHIP

(Fellows wishing to lodge objections to the election of these candidates should communicate with the Honorary Secretaries not later than Monday, September 13th, 1943. Such objections will be treated as confidential. The forms of application are displayed in the Library.)

- †**Browne, Kenneth Samuel**, A.I.C. British. 13, Quantock Avenue, Bridgwater. Senior Analyst, British Cellophane, Ltd. *Signed by* : F. W. Pritchard, C. R. Oswin, W. H. Simmons.
- †**Christopher, John Edward**, F.I.C. British. 110, Segars Lane, Ainsdale, Southport. Technical Consultant. *Signed by* : Thos. B. Smith, J. J. Fox, R. Leslie Collett.
- ***Cook, Edward Ernest**, B.A. (Oxon). British. 29, Beech Croft Road, Oxford. Research Chemist studying for B.Sc. *Signed by* : Ronald P. Bell, Wilson Baker, S. G. P. Plant.
- ***Davies, Leslie**, B.Sc.Hons. (Bristol). British. 4, School Road, Cymmer, Port Talbot. Plant Chemist. *Signed by* : John R. Moore, S. Hornsby, E. G. Cowley.
- Dolan, John Edmund**, B.Sc.Hons. (Glas.). British. 95, Lowther Street, Carlisle. Awaiting notification for O.C.T.U. training in R. Sigs. *Signed by* : J. W. Cook, R. Wright, C. Buchanan.
- ***Hills, Francis Desmond**, Inter.B.Sc. (Lond.). British. 98, Churchill Road, Upper Parkstone. Student at University College, Southampton. *Signed by* : S. H. Harper, Arthur M. James, Ishbel G. M. Campbell.
- McNamara, Abraham Ninian**, B.Sc. (Glas.), A.I.C., Ph.C., M.P.S. British. Broadlands, Westfield, Ossett. Works Manager to a firm of Manufacturing Chemists. *Signed by* : J. J. Fox, R. Leslie Collett, A. G. Francis.
- †**Manson, Margaret Mimie**, B.Sc.Hons. (Aberd.), A.I.C. British. 379, Norton Road, Norton-on-Tees. Research Chemist with I.C.I. (Fertilizer and Synthetic Products), Ltd. *Signed by* : T. Harold Reade, R. B. Strathdee, A. Eric J. Vickers.
- ‡**Marshall, William Leslie**, Associate Member Institute of Industrial Administration. British. Springfields, Salwick, Nr. Preston. Industrial Chemist—Plant Manager. *Signed by* : W. H. Brindley, Denis E. Wheeler, Geoffrey Ogden.
- ***Mathieson, David Watson**, B.Sc.Hons. (Glas.). British. c/o 4, Bellevue Road, Hornchurch. Research Chemist. *Signed by* : Julius N. Ashley, T. S. Stevens, James Bell.
- Matthews, William Lofthouse**. Several years study at The Sir John Cass Technical Institute. Member of The Society of Public Analysts since 1927. 1919 engaged by Daniel C. Griffith & Co. 1928 and onwards Head Chemist in various departments engaged in the analysis of non-ferrous metals, alloys, ores, etc., including analysis of silicate rocks and determination of rare elements such as tellurium, selenium, tungsten, vanadium, molybdenum. British. 17, Hillcrest View, Beckenham. Head Chemist. *Signed by* : Charles E. Barrs, H. E. Cox, Edgar A. Rayner.
- ‡**Mould, Leonard Pearce**, A.M.I.Chem.E. British. 27, Fontaine Road, S.W. 16. Technical Assistant, I.C.I. (Plastics). *Signed by* : J. W. Smith, A. Houston, William C. Slater, F. G. Crosse.

- †**Musgrave, James**, B.Sc. (Dun.), A.I.C. British. 1, Windermere Avenue, Heworth Estate, Heworth, Gateshead, 10. Development Chemist. *Signed by* : J. J. Fox, B. A. Ellis, R. Leslie Collett.
- ‡**Randall, George**. English. 4, Packington Road, Hallow Road Worcester. Managing Director, Severn Bank Tannery, Ltd. *Signed by* : R. S. Potter, F. P. Dunn, G. M. Bennett.
- †**Rees, Ralph Llewellyn**, M.A. (Cantab.), F.I.C., A.M.I.Chem.E. British. Brendon, Orchehill Avenue, Gerrards Cross. Assistant Chief Chemist, London Power Co., Ltd. *Signed by* : G. White, J. M. Allan, R. Leslie Collett.
- Silber, Helmut Martin**, B.Sc.Hons. (Lond.). German. 5, Russelcroft Road, Welwyn Garden City. Research Chemist. *Signed by* : A. Cohen, Laurence M. Smith, R. G. Heyes.
- ***Smith, Neville**. British. 14, Kingsway, Ladybalk, Pontefract. University Student. *Signed by* : R. D. Haworth, Brynmor Jones, E. Gertrude Turner, J. C. Speakman.
- ***Tunnah, George William**, B.A. (Oxon.), A.I.C. British. 41, Woodcroft Avenue, Stanmore. Research Chemist. *Signed by* : Allan Domleo, B. Ellis, W. L. Norris.
- Wilks, Kenneth Harry**. Passed H.S.C. (London) in main subjects—Chemistry and Zoology. 5 years' experience in present position. Speak French, German, Swiss. British. 289, Sandon Road, Stafford. Research Chemist—Abrasive Wheel Manufactory. Hope to complete B.Sc. (London) at the end of the War. *Signed by* : C. S. Garland, L. O. Newton, W. M. T. Perkins.

* Reduced annual subscription.

† Three-body.

‡ Two-body.

PAPERS RECEIVED.

List of papers received between July 23rd and August 20th, 1943. (This list does not include the titles of papers which have been read at a Scientific Meeting or which have appeared in the *Journal*.)

- "Benzcyclooctatraenes. Part IV. 1:2:3:4:5:6-Tribenz- Δ -1:3:5:7-cyclooctatraene." By R. G. SHUTTLEWORTH and (in part) W. S. RAPSON and E. T. STEWART.
- "The free energy of methyl ether from the methanol-methyl ether equilibrium $2\text{MeOH (V)} = \text{Me}_2\text{O} + \text{H}_2\text{O (V)}$." By P. H. GIVEN.
- "The determination of copper and arsenic in iron pyrites by the method of internal electrolysis." By W. C. DAVIES and C. KEY.
- "Studies in the sterol group. Part XLV. Investigation of the homogeneity of sitosterol by oxidation with the Oppenauer reagent." By D. H. R. BARTON and E. R. H. JONES.
- "Studies in the sterol group. Part XLVI. The isolation of a new form of Δ^4 -cholestenone." By D. H. R. BARTON and E. R. H. JONES.
- "Experiments on the synthesis of substances related to the sterols. Part XLI. Androstenedione. Part I." By R. H. MARTIN and SIR ROBERT ROBINSON.
- "The complex formation and rearrangement of *p*-hydroxylaminobenzenesulphonamide." By H. BURTON and N. WALKER.
- "Experiments on the synthesis of substances related to the sterols. Part XLII." By R. H. MARTIN and SIR ROBERT ROBINSON.
- "The decomposition of the diazonium salts of 4-nitro-1-naphthylamine by sodium sulphite and sodium acetate: (a) separately, and (b) combined. Preparation of 4:4'-dinitro-1:1'-azonaphthalene." By H. H. HODGSON, D. E. NICHOLSON, and G. TURNER.
- "Derivatives of 1:2:4:5-tetrachlorobenzene. Part III. The amination of 2:3:5:6-tetrachloro-nitrobenzene and -4-nitroaniline." By A. T. PETERS, F. M. ROWE, and D. M. STEAD.
- "Reactions of benzthiazole derivatives. Part IV. 1-Thiocyanobenzthiazole." By W. H. DAVIES and W. A. SEXTON.
- "Rubber, polyisoprenes, and allied compounds. Part V. The chemical linking of rubber and of other olefins with phenolformaldehyde resins." By J. I. CUNNEEN, E. H. FARMER, and H. P. KOCH.
- "The properties of freshly formed surfaces. Part I. The application of the vibrating jet technique to surface tension measurements on mobile liquids." By C. C. ADDISON.
- "The elimination of chlorine from sodium chloroacetate by the salts of weak acids." By (the late) H. M. DAWSON, E. R. PYCOCK, and G. F. SMITH.
- "The Brönsted relation in the hydrolysis of the halogenoacetates and the theory of acids and bases." By G. F. SMITH.
- "The course of autoxidation reactions in polyisoprenes and allied compounds. Part VII. Rearrangement of double bonds during autoxidation." By E. H. FARMER, H. P. KOCH, and D. A. SUTTON.
- " β -Alkylation of certain kationoid systems by means of Grignard reagents." By A. J. BIRCH and SIR ROBERT ROBINSON.
- "The cyclic methyleneamines. The use of hexamine in the production of aldehydes." By D. R. DAVIES and J. GRAYMORE.
- "An interpretation of the Sandmeyer reaction. Part IV. Catalysed decomposition of diazonium kations by anionoid complexes with special reference to those of cobalt and ferric iron." By H. H. HODGSON, S. BIRTWELL, and J. WALKER.
- "Some reactions of 3-nitro-1-naphthylamine, including anil-formation, bromination, and the preparation of 1:2:3:4-tetrabromonaphthalene." By H. H. HODGSON and D. E. HATHWAY.

THE CHEMICAL SOCIETY

NOTICE OF FORTHCOMING SCIENTIFIC MEETINGS.

IN LONDON (Burlington House).

Thursday, October 21st, 1943, at 2.30 p.m.

Meeting for the reading of papers.

The following papers will be read and discussed :

- “ Experiments on the synthesis of purine nucleosides.” By J. BADDILEY, G. W. KENNER, B. LYTHGOE, D. MCNEIL, A. R. TODD, and A. TOPHAM. (To be read by Professor A. R. TODD.)
- “ The Brönsted relation in the hydrolysis of the halogenoacetates and the theory of acids and bases. By G. F. SMITH. (To be read by the Author.)
- “ The course of autoxidation reactions in polyisoprenes and allied compounds. Part VII. Rearrangement of double bonds during autoxidation.” By E. H. FARMER, H. P. KOCH, and D. A. SUTTON. (To be read by Dr. E. H. FARMER.)

Thursday, November 18th, 1943, at 2.30 p.m.

Lecture on “ Wave Mechanics and Colour of Organic Compounds,” by Mr. E. J. Bowen, M.A., F.R.S.

OUTSIDE LONDON.

EDINBURGH.

Tuesday, November 16th, 1943, at 7 p.m.

Lecture on “ The Strength of Carbon Bonds,” by Professor M. Polanyi, M.D., Ph.D. To be held in the Lecture Theatre of the University, Teviot Place.

GLASGOW.

Wednesday, November 10th, 1943, at 3.30 p.m.

Lecture on “ Humour and Humanism in Chemistry,” by Professor John Read, M.A., Sc.D., F.R.S. Joint Meeting with the Glasgow University Alchemists Club and the Andersonian Chemical Society. To be held in the Large Lecture Theatre of the Chemistry Department of the University.

Friday, December 3rd, 1943, at 7.15 p.m.

Lecture on “ Some Aspects of the Formation of Ring Compounds,” by Professor G. M. Bennett, M.A., Sc.D. To be held at the Royal Technical College.

LEEDS.

Tuesday, October 12th, 1943, at 6.30 p.m.

Lecture on “ Autoxidation in Relation to Olefinic Structure,” by Dr. E. H. Farmer, D.I.C., F.I.C. To be held in the Chemistry Lecture Theatre of the University.

NEWCASTLE AND DURHAM.

Wednesday, October 13th, 1943, at 5 p.m.

Jubilee Memorial Lecture of the Society of Chemical Industry on “ The Contribution of Chemistry to Immunology,” by Dr. C. R. Harington, M.A., F.R.S. To be held at King's College. Fellows are invited.

NORTH WALES.

Friday, November 12th, 1943, at 5.30 p.m.

Lecture on “ The Strength of Carbon Bonds,” by Professor M. Polanyi, M.D., Ph.D. Joint Meeting with the University College of Bangor Chemical Society. To be given in the Chemistry Lecture Theatre of the College.

SHEFFIELD.

Friday, November 12th, 1943, at 5.30 p.m.

Lecture on “ Surface Films,” by Professor N. K. Adam, M.A., Sc.D., F.R.S.

Both lectures to be held in the Chemistry Lecture Theatre of the University.

PROCEEDINGS

OF THE

CHEMICAL SOCIETY.

OFFICIAL ANNOUNCEMENTS

DEATHS.

The Council regret to announce the deaths of the following Fellows :

	Elected.	Died.
Siegfried Ruhemann	1889	August 22nd, 1943.
Harold Charles Sayer	1898	August 16th, 1943.

ACKNOWLEDGMENTS.

The thanks of the Council have been conveyed to the Chemical Council for a contribution of £500 towards the maintenance of the Library for 1942 and 1943, and to Mr. H. Gledhill for a contribution of £3 to the funds of the Society.

REPRESENTATIVES.

Professor F. G. Soper, D.Sc., Ph.D., F.I.C., University of Otago, Dunedin, N.I, New Zealand, and Professor W. Pugh, B.Sc., Ph.D., F.I.C., Chemistry Department, University of Cape Town, Rondebosch, S. Africa, have accepted the invitation of the Council to serve as Representatives of the Society for New Zealand and South Africa, respectively. Fellows residing in these two countries are invited to communicate with Professor Soper and Professor Pugh for information regarding the activities of the Society.

FELLOWSHIP.

The following 19 candidates were elected Fellows of the Chemical Society on September 15th, 1943 :

Kenneth Samuel Browne.	Margaret Mimie Manson.	Ralph Llewellyn Rees.
John Edward Christopher.	William Leslie Marshall.	Helmut Martin Silber.
Edward Ernest Cook.	David Watson Mathieson.	Neville Smith.
Leslie Davies.	William Lofthouse Matthews.	George William Tunnah.
John Edmund Dolan.	Leonard Pearce Mould.	Kenneth Harry Wilks.
Francis Desmond Hills.	James Musgrave.	
Abraham Ninian McNamara.	George Randall.	

LIST OF APPLICATIONS FOR FELLOWSHIP.

(Fellows wishing to lodge objections to the election of these candidates should communicate with the Honorary Secretaries not later than Monday, October 18th, 1943. Such objections will be treated as confidential. The forms of application are displayed in the Library.)

- Balassa, George**, B.A. (Oxon.), M.D. (Budapest). Hungarian. 103, Fern-Hill Road, Cowley, Oxford. Medical Practitioner. *Signed by* : F. M. Brewer, S. G. P. Plant, J. C. Smith.
- Barker, Dorothy Gyseburn**, took Natural Science at Girton College, Cambridge, prevented by illness from sitting for final exams. British. 250, Myton Road, Warwick. Assistant in Chemical Laboratory. *Signed by* : J. Rogers, Harold Harris, D. Bagley.
- ***Barr, William**, B.Sc. Hons. (Glas.), A.I.C. British. 122, Gallowhill Road, Paisley. Research Chemist. *Signed by* : J. W. Cook, James Bell, Walter Graham.
- ***Bentley, Robert Brian**, B.Sc. (Manc.). British. 26, Hooton Way, Hooton, Wirral. Chemist, Shell Refining and Marketing Co. *Signed by* : A. McGookin, William Doran, G. H. Beaven.
- ***Bentley, Ronald**, B.Sc. (Lond.), A.I.C. British. Organic Chemistry Department, Imperial College, S.W. 7. Research Worker. *Signed by* : J. Ratcliffe, E. R. H. Jones, A. H. Cook.
- ***Braithwaite, Eric Reeves**, B.Sc.Hons. (Manc.). British. 61, John Street, Moor Row, Cumberland. Works Chemist. *Signed by* : Lionel L. Hantman, Albert Taylor, P. Ward.

- Burnley, Michael**, Pharmacist and Research Chemist. British. 27, Thornton Place, Sunderland. Ethical Pharmaceutical Practice and Analysis. Signed by : S. Burnley, J. J. Laws, William Mair.
- ***Campbell, Herbert James**, London University Matriculation. British. 52b, Chamberlain House, Phoenix Road, N.W. 1. Laboratory Assistant, Wellcome Chemical Research Laboratories (London). Signed by : T. A. Henry, W. H. Gray, W. Solomon.
- ***Cobb, Leslie Hamilton**, Ph.D. (Lond.), A.R.C.S., D.I.C., A.I.C. British. 9, Parkway Close, Welwyn Garden City. Research Chemist, I.C.I. (Plastics), Ltd. Signed by : Laurence M. Smith, Paul Russell, J. W. C. Crawford.
- Cole, William Arthur**, Member of British Association of Chemists. British. 22, Beacon Road, Loughborough. Works and Research Chemist with Zenobia Ltd., Manufacturing Perfumers and Chemists. Signed by : F. V. Wells, S. J. Hopkins, E. Brown.
- ***Duniz, Jack David**. British. 16 Dinard Drive, Giffnock. Student of Chemistry, University of Glasgow. Signed by : James Bell, J. W. Cook, John A. Mair.
- ‡**Gossling, Percy William Lingley**, B.Sc.Hons. (Lond.), M.Inst.Pet., Member of Insulating Oil Committee of Electrical Research Association. British. 30 Lynwood Grove, Orpington. Chief Chemist and Refinery Manager, W. B. Dick & Co., Ltd. Signed by : J. R. Partington, A. B. Crawford, I. Vance Hopper.
- ‡**Handisye, Frederick Percy**, Inter.B.Sc., 14 years' experience of analytical work. British. 43, Briar Road, Kenton, Harrow. Analyst. Signed by : F. Bergel, A. Cohen, A. W. D. Avison.
- Haworth, Fred**, B.Sc.Hons. (L'pool). British. Mill House Farm, Brindle, Nr. Chorley. Demonstrator in Organic Chemistry in the University of Liverpool and Research Student. Signed by : William Doran, Francis W. Kay, A. McGookin.
- ‡**Holt, Stanley James**, B.Sc. (Lond.), 7 years experience in Industry and Research. British. 5, Ruskin Road, Belvedere. Research Chemist. Signed by : D. H. O. John, H. J. Barber, W. R. Wragg.
- ***Johnson, Allard Harry**. British. 26, High Street, Whetstone, Leicester. Full-time student of Chemistry at University College, Leicester. Signed by : L. Hunter, A. Hickling, N. Reynolds.
- ***Lloyd, John Gerard Stewart**, B.Sc.Hons. (L'pool). British. 19, Kings Road, Bebington. Chemist with "Shell" Refining and Marketing Co., Ltd. Signed by : A. McGookin, G. H. Beaven, T.P. Hilditch.
- ‡**Logan, John**, Senior Chemical Certificate, Royal Technical College, Glasgow. British. 66, Marshfield Road, Goole. Works Manager. Signed by : A. B. Gordon, R. T. Thomson, F. R. Storrie.
- Luker, Leslie Gordon**. English. 10, Boscombe Road, Merton Park, S.W. 19. Master Printer. Signed by : R. B. Drew, A. R. Cluer, K. Wallersteiner.
- Mardon, James**, Inter.B.Sc. (Lond.), Exhibitioner, Selwyn College, Cambridge. British. Ellesmere, Silverton, Soldier. Signed by : L. F. J. Parker, E. G. J. Willing, H. T. S. Britton.
- †**Mieras, Adrian Pieter**, B.Sc. (Edin.), F.I.C., F.T.I. British. 32, Dreghorn Loan, Colinton, Edinburgh. Managing Director, Liddell's Laundry, Ltd. Signed by : E. G. V. Percival, T. R. Bolam, James Kendall, Neil Campbell.
- ***Moore, Clifford Graham**, N.U.J.R.B. Higher School Cert. British. Hatfield College, Durham University, Durham. 2nd Years Honours Chemistry Student. Signed by : C. W. Gibby, G. H. Christie, J. C. E. Simpson.
- Shimmin, Edwin Leslie**, B.Sc.Hons. (L'pool). British. Waverley, Ash Grove, Whitby. Science Master, also carrying out research on γ -pyrone nucleus. Signed by : Frederick Challenger, W. C. M. Lewis, T. P. Hilditch.
- ‡**Smith, Philip Arthur**, B.A. (Oxon.). British. Rookwood, Woodbrook Road, Alderley Edge. Divisional Manager, Imperial Chemical Industries, Ltd. Signed by : E. H. Rodd, P. Chorley, A. Shepherdson.
- Tebrich, Walter**, B.Sc. and Ph.D. (Edin.). German Refugee. 29, Squires Gate Lane, Blackpool. Research Chemist at Messrs. Koray, Ltd. Signed by : James Kendall, T. R. Bolam, W. O. Kermack.
- ***Thompson, Charles Norman**, B.Sc. Hons. (L'pool). British. 85, Temple Road, Prenton, Birkenhead. Chemist with a Petroleum Company. Signed by : A. McGookin, G. H. Beaven, T. P. Hilditch.
- ‡**Wade, Arthur**, Co-ordination of sound technical and scientific training, ability and experience. British. 25, Carlton Road, Burnley. Director, Secretary and Technical Chief of firm of Manufacturing Chemists. Signed by : H. J. C. Mathews, J. W. Baker, H. Burton.
- ***Webber, Edwin Alexander**, B.Sc. (Lond.). British. 81, High Street, Crediton. Student at University College, Exeter. Signed by : W. H. Lewis, S. J. Gregg, John Jacques, Ernest G. J. Willing.
- †**Wild, George Lewis Edgar**, B.Sc. and Ph.D. (Lond.), A.I.C. British. Walden, 101, Uphill Road, Mill Hill, N.W. 7. Temporarily unemployed owing to ill-health. Until recently Chemist with Messrs. Bakelite, Ltd. Signed by : E. G. K. Pritchett, John H. Bennitt, E. S. Fisher.
- ‡**Wylie, Colin Alfred**, Member of British Association of Chemists. British. 12, Silverbeech Road, Wallasey. Chemical Manufacturer. Signed by : C. S. Garland, E. C. C. Baly, P. Haas.

UNDER SPECIAL PROVISION APPERTAINING TO CANDIDATES RESIDENT ABROAD.

- ‡**Baker, John Clark**, B.S. and Hon.D.Sc. (Upper Iowa University), M.Pd. (New Mexico Normal School), M.S. and Ph.D. (Columbia University). Supt. of Schools Emerado, N.D. 1905-1907, Laboratory Assistant U.I.U. 1909-1910, Professor of Science New Mexico Normal School, 1910-1913. Chemistry Assistant Columbia University 1913-1916, Associate Chemist N.Y. Agricultural Experiment Station, Geneva, 1916-1919. American. 11, Mill Street, Belleville, New Jersey. Research Chemist. Signed by : A. J. Amos, D. W. Kent-Jones.
- Sondern, Clarence William**, M.S. and Ph.D. (Wisconsin). American. Box 769, Kansas City. Director of Laboratories, George A. Breon & Co. Signed by : James A. Austin.
- Swami, Purushottama Dasa**, M.Sc. (Benares Hindu University). Research work in Analytical Chemistry on Phosphates, Oxalates and Fluorides. Indian. Chemistry Department, Dungar College, Bikaner, Rajputana. Assistant Professor of Chemistry, Dungar College. Signed by : S. S. Joshi.

* Reduced annual subscription.

† Three-body.

‡ Two-body.

PAPERS RECEIVED.

List of papers received between August 20th and September 17th, 1943. (This list does not include the titles of papers which have been read at a Scientific Meeting or which have appeared in the *Journal*.)

- " Attempts to find new antimalarials. Part XVIII." By D. C. QUIN and SIR ROBERT ROBINSON.
- " Attempts to find new antimalarials. Part XIX." By W. L. GLEN and SIR ROBERT ROBINSON.
- " Attempts to find new antimalarials. Part XX." By MISS J. CRUM and SIR ROBERT ROBINSON.
- " Note on the direct introduction of angular alkyl groups." By A. J. BIRCH.
- " Syntheses in the naphthalene series. Part I. 1:3-Dihydroxynaphthalenes." By G. SOLIMAN and R. W. WEST.
- " Syntheses in the naphthalene series. Part II. 3-Hydroxy-2-alkyl-1:4-naphthaquinones." By G. SOLIMAN and (in part) A. LATIF.
- " The synthetic application of *o*- β -bromoethylbenzyl bromide. Part II. The preparation and properties of 2-substituted 1:2:3:4-tetrahydroisoarsinolines." By F. G. HOLLIMAN and F. G. MANN.
- " The synthetic application of *o*- β -bromoethylbenzyl bromide. Part III. The preparation and optical resolution of 2-phenyl-2-*p*-chlorophenacyl-1:2:3:4-tetrahydroisoarsinolinium bromide." By F. G. HOLLIMAN and F. G. MANN.
- " Diencestrol." By G. I. HOBDAV and W. F. SHORT.
- " The synthesis of amino-acids from substituted cyanoacetic esters." By P. E. GAGNON, R. GAUDRY, and F. E. KING.
- " The replacement of the diazonium by the nitro-group. A general method based on the decomposition of the aryldiazonium cobaltinitrites." By H. H. HODGSON and E. MARSDEN.
- " β -Cholesterol oxide." By R. A. BAXTER and F. S. SPRING.
- " The effect of molecular environment on the absorption spectra of organic compounds in solution. Part III." By A. E. GILLAM and L. K. EVANS.
- " The preparation of nitroethane." By H. McCOMBIE, B. C. SAUNDERS, and F. WILD.
- " Experiments on the synthesis of purine nucleosides. Part III. 4-Glycosidaminopyrimidines." By J. BADDILEY, B. LYTHGOE, and A. R. TODD.
- " Experiments on the synthesis of purine nucleosides. Part IV. 4:6-Diaminopyrimidine. A new synthesis of pyrimidine derivatives." By G. W. KENNER, B. LYTHGOE, A. R. TODD, and A. TOPHAM.
- " Long-chain acids containing a quaternary carbon atom. Part II." By N. POLGAR and SIR ROBERT ROBINSON.
- " The amylolytic degradation of starch." By W. N. HAWORTH, H. KITCHEN, and S. PEAT.
- " Rare earths in scheelite." By J. K. MARSH.
- " The constitution of yeast ribonucleic acid. Part VI. The nature of the carbohydrate radicals." By J. M. GULLAND and G. R. BARKER.

THE CHEMICAL SOCIETY

NOTICE OF FORTHCOMING SCIENTIFIC MEETINGS

IN LONDON (Burlington House).

Thursday, November 18th, 1943, at 2.30 p.m.

Lecture on "Wave Mechanics and Colour of Organic Compounds," by Mr. E. J. Bowen, M.A., F.R.S.

OUTSIDE LONDON.

EDINBURGH.

Tuesday, November 16th, 1943, at 7 p.m.

Lecture on "The Strength of Carbon Bonds," by Professor M. Polanyi, M.D., Ph.D. To be held in the Lecture Theatre of the University, Teviot Place.

GLASGOW.

Wednesday, November 10th, 1943, at 3.30 p.m.

Lecture on "Humour and Humanism in Chemistry," by Professor John Read, M.A., Sc.D., F.R.S. Joint Meeting with the Glasgow University Alchemists Club and the Andersonian Chemical Society. To be held in the Large Lecture Theatre of the Chemistry Department of the University.

Friday, December 3rd, 1943, at 7.15 p.m.

Lecture on "Some Aspects of the Formation of Ring Compounds," by Professor G. M. Bennett, M.A., Sc.D. To be held at the Royal Technical College.

MANCHESTER.

Thursday, November 25th, 1943, at 5.30 p.m.

Lecture on "Modern Technique in Inorganic Chemistry," by Dr. H. J. Emeléus, A.R.C.S. To be held in the Chemistry Lecture Theatre of the University.

NEWCASTLE AND DURHAM.

Thursday, November 11th, 1943, at 6 p.m.

Lecture on "Plastics," by Mr. I. W. A. Kirkwood, M.I.E.E., M.A.I.E.E., and Dr. P. D. Ritchie, B.Sc., A.I.C. Joint meeting of the Royal Institute of Chemistry with the Chemical Society, Society of Chemical Industry, Oil and Colour Chemists' Association, Newcastle Chemical Industry Club, and British Association of Chemists. To be held in the Lecture Theatre, King Edward VII School of Art, King's College, Newcastle.

NORTH WALES.

Friday, November 12th, 1943, at 5.30 p.m.

Lecture on "The Strength of Carbon Bonds," by Professor M. Polanyi, M.D., Ph.D. Joint Meeting with the University College of Bangor Chemical Society. To be held in the Chemistry Lecture Theatre of the College.

NOTTINGHAM.

Thursday, December 2nd, 1943, at 4 p.m.

Lecture on "Some Properties and Reactions of Anhydrous Hydrofluoric Acid," by Dr. H. J. Emeléus, A.R.C.S. Joint meeting with the University College Physical and Chemical Society. To be held in the Chemistry Lecture Theatre, University College, University Park.

SHEFFIELD.

Friday, November 12th, 1943, at 5.30 p.m.

Lecture on "Surface Films," by Professor N. K. Adam, M.A., Sc.D., F.R.S. To be held in the Chemistry Lecture Theatre of the University.

PROCEEDINGS

OF THE

CHEMICAL SOCIETY.

Minutes of a SCIENTIFIC MEETING

held at Burlington House, Piccadilly, W. 1, on Thursday, October 21st, 1943, at 2.30 p.m.

The PRESIDENT, DR. W. H. MILLS, M.A., F.R.S., was in the Chair, and welcomed the visitors present.

MINUTES.

The minutes of the Scientific Meeting on May 13th, which had been circulated, were taken as read and were confirmed and signed.

NEW JOINT MEMBERSHIP FACILITIES.

It was announced that new grades of Joint Junior and Joint Student Membership of the three Chartered Bodies would come into operation on January 1st, 1944, and that Fellows would receive further particulars.

FORMAL ADMISSION OF FELLOWS.

The following were formally admitted Fellows of the Chemical Society: William T. Lockett, Charles E. Hollis, W. B. Brown, J. C. D. Brand, R. F. Naylor, K. Schwarzwald, K. S. Kirby, J. Baddiley, Cyril A. Brighton, P. A. Serin, Reg. F. Bowles, Eric Reid, H. S. Rooke, B. Lythgoe, Geoffrey Gee, G. A. Jeffrey, J. I. Cunneen.

SCIENTIFIC COMMUNICATIONS.

The following papers were read and discussed:

- "Experiments on the synthesis of purine nucleosides." By J. BADDILEY, G. W. KENNER, B. LYTHGOE, D. McNEIL, A. R. TODD, and A. TOPHAM.
- "The Brönsted relation in the hydrolysis of the halogenoacetates and the theory of acids and bases." By G. F. SMITH.
- "The course of autoxidation reactions in polyisoprenes and allied compounds. Part VII. Rearrangement of double bonds during autoxidation." By E. H. FARMER, H. P. KOCH, and D. A. SUTTON.

OFFICIAL ANNOUNCEMENTS

DEATHS.

The Council regret to announce the deaths of the following Fellows:

	Elected.	Died.
William Herbert Hatfield	1927	October 17th, 1943.
Alfred Henrick Jackson	1883	November 14th, 1939.
Joseph Harger Pye	1920	May 23rd, 1943.
Arthur Avery Read	1889	September 24th, 1943.
Thomas Moore Ridley	1929	September 11th, 1942.
Francis Napier Sutton	1886	September 24th, 1943.
Percy Williams	1907	February 9th, 1942.
	Killed in action.	
Ernest Adam Wagstaff	1930	October, 1942.

ACKNOWLEDGMENTS.

The thanks of the Council have been conveyed to Dr. P. J. Garner, Mr. B. G. McLellan, and Dr. S. W. Smith for gifts of publications of the Society.

FELLOWS IN AUSTRALIA AND NEW ZEALAND.

Fellows in Australia and New Zealand are reminded that their annual subscriptions, either joint or separate, may be paid in the currencies of these two Dominions, and should be sent to the Commercial Bank of Australia, Ltd., 273, George Street, Sydney, N.S.W., Australia.

RESEARCH FUND.

Forms of application for grants from the Research Fund of the Society can be obtained from the General Secretary, The Chemical Society, Burlington House, Piccadilly, London, W.1. Applications from Fellows will receive prior consideration.

FELLOWSHIP.

The following 33 candidates were elected Fellows of the Chemical Society on October 21st, 1943 :

George Balassa.	Jack David Dunitz.	Clifford Graham Moore.
John Clark Baker.	Percy William Lingley Gosling.	Edwin Leslie Shimmin.
Dorothy Gyseburn Barker.	Frederick Percy Handisyde.	Philip Arthur Smith.
William Barr.	Fred Haworth.	Clarence William Sondern.
Robert Brian Bentley.	Stanley James Holt.	Purushottama Dasa Swami.
Ronald Bentley.	Allard Harry Johnson.	Walter Tebrich.
Eric Reeves Braithwaite.	John Gerard Stewart Lloyd.	Charles Norman Thompson.
Michael Burnley.	John Logan.	Arthur Wade.
Herbert James Campbell.	Leslie Gordon Luker.	Edwin Alexander Webber.
Leslie Hamilton Cobb.	James Mardon.	George Lewis Edgar Wild.
William Arthur Cole.	Adrian Pieter Mieras.	Colin Alfred Wylie.

LIST OF APPLICATIONS FOR FELLOWSHIP

(Fellows wishing to lodge objections to the election of these candidates should communicate with the Honorary Secretaries not later than Monday, November 15th, 1943. Such objections will be treated as confidential. The forms of application are displayed in the Library.)

- ***Bellringer, Frederick James**, B.Sc.Hons. (Lond.). English. 22, Abbott Avenue, Wimbledon, S.W. 20. Works Chemist. Signed by : Kenneth J. Verrill, F. G. Sayer, E. de Barry Barnett.
- ***Bevington, John Cuthbert**, B.A.Hons. (Cantab.), Foundation Scholar of Queen's College, Cambridge. British. 67, Stockbridge Road, Winchester. Research Worker. Signed by : F. S. Dainton, R. R. Smith, Hugh Campbell.
- †**Bishop, Arthur Albert**. 3 years Laboratory Assistant with Bostock, Hill and Rigby, Public Analysts; 5 years Assistant Works Chemist, and 1 year Assistant Research Chemist, Bell's Asbestos Co., Ltd.; 3 years Works Chemist and Assistant Works Manager, Raybestos Co., Ltd.; 3 years Chemist and Assistant Manager, B.L. Section, Turner Bros. Asbestos Co., Ltd.; 8 years Chief Chemist and Works Manager, Morgan, Crossley & Co., Ltd. British. 24, Buckingham Road, Cheadle Hulme. Works Manager and Chief Chemist. Signed by : R. Fraser Thomson, S. Ellingworth, A. W. Baldwin.
- ***Bryant, Kenneth Conrad**, B.A. (Oxon). British. 74, Kings Drive, Bishopston, Bristol, 7. Research Chemist, Trinidad Leaseholds, Ltd. Signed by : Richard Barrow, C. N. Hinshelwood, T. K. Hanson.
- ***Docherty, Archibald Cameron**, B.Sc.Hons. (Edin.). British. 31, Queens Avenue, Edinburgh, 4. Research at Chemistry Department, University of Edinburgh. Signed by : E. G. V. Percival, A. Scott Dodd, Mowbray Ritchie.
- ***Dorkin, Catherine Margaret Cameron**, B.Sc. (Leeds). British. 5, Dewsbury Terrace, Priory Street, York. Technical Assistant in Factory. Signed by : Frederick Challenger, W. A. Wightman, J. W. Baker.
- †**Gibbons, Percy Albert**, B.Sc.Hons. and M.Sc. (Lond.), Teacher's Diploma; Member of the Royal Society of Teachers; Associate of the Institute of the Rubber Industry. British. 96, Ealing Village, Hangers Lane, W. 5. Manager of the Phoenix Rubber Co., Ltd. Signed by : T. J. Drakeley, R. W. West, H. J. S. King.
- †**Grantham, Roy**, B.Sc. (Melb.). British. Thurloo, Irving Road, Tvorak, S.E. 2, Melbourne. Doing M.Sc. degree at Melbourne University—Research in Organic Chemistry. Signed by : E. J. Hartung, J. S. Anderson, K. H. Pausacker.
- †**Hatfull, Ronald Stanley**, A.I.C. British. 37, Highfield Road, Sutton. Research Chemist, Shell Refining and Marketing Co., Ltd. Signed by : J. Kenyon, A. Houston, J. W. Smith.
- ***Hearson, Anthony**, B.Sc.Hons. (Dun.). British. 86, First Avenue, Kidsgrove, Stoke-on-Trent. Shift Chemist. Signed by : C. W. Gibby, G. H. Christie, J. C. E. Simpson.
- †**Holden, Henry Patrick**. British. Trencom, Wenallt Road, Rhiwbina, Nr. Cardiff. Chemist with Copigraph, Ltd. Signed by : G. H. Macadam, A. S. Minton, H. John Williams.
- Howarth, John**, Inter B.Sc. (Lond.), Registered for B.Sc. Special Chemistry, June, 1944. British. 154, Bilton Road, Perivale, Greenford. Assistant Works Chemist. Signed by : C. H. Hands, W. H. J. Vernon, F. Wormwell.
- ***Hutchinson, Samuel Keith**, B.Sc. (Lond.). British. 62, Stanton Road, Ilkeston. Research Student, University College, Nottingham. Signed by : E. B. R. Prideaux, D. O. Jordan, G. R. Barker, John C. Roberts.
- ***Kennedy, Gordon Telford**, B.A. (Oxon). British. 54, Abbots Road, Abbots Langley, Watford. Research Chemist, Trinidad Leaseholds, Limited. Signed by : Richard Barrow, C. N. Hinshelwood, T. K. Hanson.
- †**Lowe, Cecil William**, B.Sc.Hons. (Wales). British. Croft House, Ashburnham Road, Pembrey. Shift Chemist. Signed by : J. E. Coates, T. Campbell James, D. Gwynne Davies.
- ***Mackenzie, Robert Cameron**, B.Sc.Hons. (Edin.). British. 76, Marchmont Crescent, Edinburgh. Chemical Research at the University of Edinburgh. Signed by : E. G. V. Percival, Ernest B. Ludlam, Mowbray Ritchie.
- †**Phillips, Lewis Henry**, B.Sc. (Lond.), A.R.C.S., A.I.C., D.I.C. British. L. M. Van Moppes & Sons, Diatip Works, North Circular Road, N.W. 2. Chemist. Signed by : H. J. T. Ellingham, M. A. Whiteley, R. Leslie Collett.
- †**Polunin, Nicholas**, M.S. (Yale), M.A., D.Phil., D.Sc. (Oxon), Editor. "International Industry." British. Shack, Shotover Hill, Oxford. Fielding Curator and Keeper of the University Herbaria; University Demonstrator and Lecturer, Department of Botany, Oxford; Lecturer of New College, Oxford; Foreign Research Associate, Harvard University. Signed by : N. V. Sidgwick, D. Ll. Hammick, J. C. Smith.
- ***Popper, Peter Theodor**, Inter B.Sc. Czechoslovak. 31, Tregunter Road, S.W. 10. Third year Chemistry Student for B.Sc. at Imperial College, London. Signed by : H. J. Emeléus, H. J. T. Ellingham, L. S. Theobald.

- Pratt, Herbert William**, M.P.S., Associate of Royal Photographic Society. British. 37, Hildaville Drive, Westcliff-on-Sea. Pharmacist. *Signed by* : P. F. R. Venables, J. D. Kendall, Victor Gallafent.
- ***Rhys, Ceredig Phillips**, B.Sc.Hons. (Wales). British. 24, Mornington Avenue, W. 14. Chemist to Messrs. Shell Refining and Marketing Co. *Signed by* : W. Davey, W. David, T. Martin A. Tudhope.
- ***Riley, John Price**, B.Sc.Hons. (L'pool). British. 30, Lulworth Road, Birkdale. Research Chemist. *Signed by* : A. McGookin, T. P. Hilditch, D. M. Edwards.
- ***Robinson, Margaret Shirley**, B.Sc. (Leeds). British. Burnside, Butterbowl, Farnley, Leeds. Research Assistant, Wool Industries Research Association, Leeds. *Signed by* : Stanley Blackburn, Leonard F. Story, Henry Phillips.
- Small, Percy Arthur**, B.A., D.Phil. (Oxon). British. Sedanka, Parkway Close, Welwyn Garden City. Research Chemist, Plastics Industry. *Signed by* : Laurence M. Smith, R. G. Heyes, P. Russell.
- Stephenson, Emily Fay Morrison**, M.Sc. (Melb.). British. Chemistry Department, University of Melbourne, N. 3, Melbourne. Demonstrator. *Signed by* : W. Davies, J. S. Anderson, H. H. Hatt.
- ***Tarnowski, Hans-Hermann Alfred Eberhard**, B.Sc. subsidiary examination in Physiology, London University, Intermediate examination in Science. German. 6, Albert Terrace, Edinburgh. Third year honours degree student of Chemistry (private study) and medical student at the School of Medicine of the Royal College of Edinburgh. *Signed by* : A. Hickling, L. Hunter, I. I. Carasso.
- ‡**Tattersall, Cecil Owen**, O.B.E., B.Sc.Hons. (Lond.), A.R.C.S., F.I.C. British. Master General of the Ordnance Branch, General Headquarters, India, Shahjahan Road, New Delhi. Scientific Adviser to the M.G.O. in India. *Signed by* : H. J. T. Ellingham, J. N. Sugden, A. A. Eldridge.
- ‡**Thomson, Alexander William**, Associate of Sydney Technical College (Organic Chemistry). British. c/o Messrs. Reckitt & Colman (Australia), Ltd., 145, Bourke Street, Redfern, N.S.W. Deputy Factory Manager. *Signed by* : J. C. Earl, Adrien Albert, Thomas Iredale.
- Walsh, Arthur Donald**, M.A., Ph.D. (Cantab.). British. Physical Chemistry Laboratory, Free School Lane, Cambridge. Research Chemist. *Signed by* : Fredk. S. Dainton, R. G. W. Norrish, J. R. Partington.
- Weigert, Ulrich**, B.Sc.Hons. (Manc.), D.I.C. (Chemical Engineering). German. 24, Tudor Road, New Barnet. Works Chemist. *Signed by* : Colin Campbell, J. B. M. Herbert, M. Polanyi.
- ***Winter, Paul**. Third year Diploma, Academy of Commerce in Vienna (Honours in Chemistry and Chemical Technology and in Technology of Commercial Commodities); private study of drugs, dietetics, food-chemistry, food-manufacture and accounting. Four years drug and chemistry trade (London). Austrian. 32, Bramham Gardens, S.W. 5. Food-manufacturer. *Signed by* : D. C. Garratt, I. Goldrei, H. C. Macfarlane.

UNDER SPECIAL PROVISION APPERTAINING TO CANDIDATES RESIDENT ABROAD.

- †**Nepe, Solly Louis**, B.Sc.Eng. (Witwatersrand), A.I.C., A.M.Inst.Pet. South African. C/o Satmar, P.O. Box 83, Boksburg North, Transvaal. Chief Chemist, S.A. Torbanite Mining and Refining Co., Ltd. *Signed by* : L. Golberg.

* Reduced annual subscription.

† Three-body.

‡ Two-body.

PAPERS RECEIVED

List of papers received between September 17th and October 21st, 1943. (This list does not include the titles of papers which have been read at a Scientific Meeting or which have appeared in the *Journal*.)

- "Physical properties and chemical constitution. Part VIII. Alkyl chlorides, bromides, and iodides." By A. I. VOGEL.
- "A method for the continuous measurement of the local concentration of atmospheric ozone." By E. GLUCKAUF, H. G. HEAL, G. R. MARTIN, and F. A. PANETH.
- "Photo-chemical reactions. Part VII. Photo-chemical reactions in sunlight involving: (a) Rupture of ethane linkage. (b) Dehydrogenation effected by quinone and benzophenone derivatives. (c) Addition reactions between ketones and methanes." By A. SCHÖNBERG and A. MUSTAFA.
- "Some properties of urea, biuret, and triuret." By R. C. HAWORTH and F. G. MANN.
- "Note on the co-ordination number of bivalent lead." By R. C. HAWORTH and F. G. MANN.
- "The application of the conditions of the Tiemann-Reimer reaction to benzaldehyde." By W. S. RAPSON, D. H. SAUNDER, and E. T. STEWART.
- "The preparation and properties of certain poly-sulphanilamide compounds." By F. G. MANN and J. WATSON.
- "Organic derivatives of silicon. Part LI and last. Bi-dihydroxytetraphenylethane orthosilicate." By F. S. KIPPING and J. T. ABRAMS.
- "Iron derivatives of heterocyclic acids. Part I. Ferric complexes of chelidamic acid." By J. H. GORVIN.
- "The mono-reduction of 1:3-dinitronaphthalene and the separation of 3-nitro-1-naphthylamine and 4-nitro-2-naphthylamine." By H. H. HODGSON and S. BIRTWELL.
- "Analogues of pantothenic acid. Part IV. Aryl derivatives of pantoyl taurine." By J. BARNETT, D. J. DUPRÉ, B. J. HOLLOWAY, and F. A. ROBINSON.
- "The action of phosphorus pentasulphide on barbituric acids." By H. C. CARRINGTON.
- "Transport numbers of nitric acid in water at 25° from E.M.F. measurements." By H. I. STONEHILL.

THE CHEMICAL SOCIETY

NOTICE OF FORTHCOMING SCIENTIFIC MEETINGS

IN LONDON (Burlington House).

Thursday, January 20th, 1944, at 2.30 p.m.

Tilden Lecture on "The Scope and Limitations of Infra-red Measurements in Chemistry," by Dr. H. W. Thompson, M.A.

OUTSIDE LONDON.

GLASGOW.

Friday, December 3rd, 1943, at 7.15 p.m.

Lecture on "Some Aspects of the Formation of Ring Compounds," by Professor G. M. Bennett, M.A., Sc.D. To be held at the Royal Technical College.

LIVERPOOL.

Thursday, January 13th, 1944, at 4 p.m.

Lecture on "The 'Reactivity' of Organic Compounds," by Professor E. D. Hughes, D.Sc., Ph.D., F.I.C. Joint Meeting with the Royal Institute of Chemistry, Society of Chemical Industry and British Association of Chemists. To be held in the Muspratt Lecture Theatre of the University.

NORTH WALES.

Friday, January 28th, 1944, at 5.30 p.m.

Lecture on "The Strength of Carbon Bonds," by Professor M. Polanyi, M.D., Ph.D. Joint meeting with the University College of Bangor Chemical Society. To be given in the Chemistry Lecture Theatre of the College.

NOTTINGHAM.

Thursday, December 2nd, 1943, at 4 p.m.

Lecture on "Some Properties and Reactions of Anhydrous Hydrofluoric Acid," by Dr. H. J. Emeléus, A.R.C.S. Joint meeting with the University College Physical and Chemical Society. To be held in the Chemistry Lecture Theatre, University College, University Park.

SOUTH WALES.

Friday, January 21st, 1944, at 6 p.m.

At Cardiff.

Lecture on "Chemical Reactivity," by Professor E. D. Hughes, D.Sc., Ph.D. Joint meeting with the Cardiff Technical College Chemical Society. To be held at the Technical College.

Saturday, January 22nd, 1944, at 3 p.m.

At Swansea.

Lecture on "Chemical Reactivity," by Professor E. D. Hughes, D.Sc., Ph.D. Joint meeting with the University College Students' Chemical Society. To be held in the Chemistry Department of University College.

PROCEEDINGS

OF THE

CHEMICAL SOCIETY.

Minutes of a SCIENTIFIC MEETING

held at Burlington House, Piccadilly, W. 1, on Thursday, November 18th, 1943, at 2.30 p.m.

The PRESIDENT, DR. W. H. MILLS, M.A., F.R.S., was in the Chair, and welcomed the visitors present.

MINUTES.

The minutes of the Scientific Meeting of October 21st, which had been circulated, were taken as read and were confirmed and signed.

FORMAL ADMISSION OF FELLOWS.

The following were formally admitted Fellows of the Chemical Society: Herbert J. Campbell, Arthur Wade, Philip S. S. F. Marsden, C. Norman Thompson, J. Gerard S. Lloyd, Leslie G. Luker, Ronald S. Hatfull.

LECTURE.

After a brief introduction, the PRESIDENT called on Mr. E. J. Bowen, M.A., F.R.S., to deliver his Lecture entitled "Wave Mechanics and Colour of Organic Compounds."

At the conclusion of the Lecture, a vote of thanks to the Lecturer, proposed by Professor T. S. Moore, was carried with acclamation.

OFFICIAL ANNOUNCEMENTS

DEATHS.

The Council regret to announce the deaths of the following Fellows :

	Elected.	Died.
Percy Appleyard	1903	October 10th, 1943.
Robert MacFarlane Clark	1919	August 23rd, 1943.
William Douglas	1888	October 29th, 1943.
John Aitken Macnair	1941	October 7th, 1943.
Gerald Tattersall Moody	1887	October 23rd, 1943.
Frank Southerden	1897	November 13th, 1943.

CONGRATULATIONS.

The congratulations of the Council have been conveyed to Professor I. M. Heilbron on his being awarded the Davy Medal of the Royal Society.

The Council have sent greetings to Professor Niels Bohr, Honorary Fellow, on his recent escape from Denmark to this Country.

ACKNOWLEDGMENTS.

The thanks of the Council have been conveyed to the Rev. G. C. Chambres for a contribution to the funds of the Society and to Mr. D. E. Coome for presenting sets of the publications of the Society.

REPRESENTATIVE FOR INDIA.

Sir Shanti S. Bhatnagar, O.B.E., D.Sc., F.R.S. (The University, Lahore, Punjab, India) has accepted the invitation of the Council to act as Representative of the Society for India. Fellows residing in India are invited to communicate with Sir Shanti Bhatnagar for information regarding the activities of the Society.

RESEARCH GRANTS.

The Council have made the following grants from the Research Fund :

	£	s.	d.
Influence of solvents on the kinetics of ester hydrolysis. (S. V. Anantakrishnan)	10	0	0
Study of the formation and decomposition of onium compounds. (S. V. Anantakrishnan)	10	0	0
Experiments on the resolution of 10- <i>p</i> -carboxyphenyl-2-methylphenoxstibine. (Miss I. G. M. Campbell)	10	0	0
The structure of colchicine and the synthesis of analogues. (J. W. Cook)	20	0	0
Synthesis of pyrethrum. (S. H. Harper)	25	0	0
The polarography of quinoline derivatives. (J. T. Stożek)	5	0	0

LIBRARY.

The Library will be closed on Christmas Day, and on Monday, December 27th.

NEW JOINT MEMBERSHIP FACILITIES.

Note.—C.S. = *Chemical Society*. R.I.C. = *Royal Institute of Chemistry*. S.C.I. = *Society of Chemical Industry*.

For some years past Fellows of the Society have had the privilege, until they reach the age of 25, of paying a reduced Annual Subscription of £1 10s. and of receiving the *Annual Reports* and either the *Journal* or two Sections of *Abstracts A*. This privilege continues to remain in force, and it will be seen from the notice recently sent out by the Conjoint Chemical Office that this junior Fellowship has been extended to include Joint Junior and Joint Student Fellows from 1st January, 1944.

Joint Junior Fellowship is open to Fellows, who have not reached the age of 25 on the 1st January of a given year. The joint Annual Subscription to the C.S., the R.I.C., and the S.C.I. payable by a Fellow who is an Associate of the R.I.C. is £3 5s. and by a Fellow who is a Student of the R.I.C., £2 5s. The Joint Annual Subscription to the C.S. and the S.C.I. is £1 15s. Fellows in any of the above three categories receive free of charge publications up to 35 units of schedule price, and may purchase a further 25 units of publications of schedule price.

Joint Student Fellowship is open to Fellows who have not reached the age of 22 on 1st January of a given year. The joint Annual Subscription to the C.S., the R.I.C., and the S.C.I. is £1 and to the C.S. and S.C.I., 10s. Fellows in either category receive free of charge the *Annual Reports (Pure)* and the *Annual Reports (Applied)*, and may purchase Reprints of the Chemical Society Lectures at the schedule price.

In order that the scheme may be put into operation, certain alterations in Bye-Law 8 are necessary. The Council are glad to state that the Lord President of His Majesty's Privy Council, in exercise of the powers conferred on him by the Chartered and Other Bodies (Temporary Provisions Act), 1939, has directed that for the period during which this Act remains in force Bye-Law 8 (c) which states that the Council shall have power :

“ To reduce (by not more than one-half) the annual subscription payable by any Fellow who at the date when such annual subscription becomes payable, is under 25 years of age, and who is willing to forego the receipt of certain of the publications of the Society issued to Fellows as hereinafter provided,”

shall be amended by the deletion of the words “ (by not more than one-half).” The scheme will thus come into operation without delay.

FELLOWSHIP.

The following 32 candidates were elected Fellows on November 18th :

Frederick James Bellringer.	John Howarth.	John Price Riley.
John Cuthbert Bevington.	Samuel Keith Hutchinson.	Margaret Shirley Robinson.
Arthur Albert Bishop.	Gordon Telford Kennedy.	Percy Arthur Small.
Kenneth Conrad Bryant.	Cecil William Lowe.	Emily Fay Morrison Stephenson.
Archibald Cameron Docherty.	Robert Cameron Mackenzie.	Hans-Hermann Alfred Eberhard
Catherine Margaret Cameron Dorkin.	Solly Louis Neppe.	Tarnowski.
Percy Albert Gibbons.	Lewis Henry Phillips.	Cecil Owen Tattersall.
Roy Grantham.	Nicholas Polunin.	Alexander William Thomson.
Ronald Stanley Hatfull.	Peter Theodor Popper.	Arthur Donald Walsh.
Anthony Hearson.	Herbert William Pratt.	Ulrich Weigert.
Henry Patrick Holden.	Ceredig Phillips Rhys.	Paul Winter.

LIST OF APPLICATIONS FOR FELLOWSHIP.

(Fellows wishing to lodge objections to the election of these candidates should communicate with the Honorary Secretaries not later than Monday, December 13th, 1943. Such objections will be treated as confidential. The forms of application are displayed in the Library.)

- ***Anderson, Ian Glyn**, B.Sc.Hons. (Lond.). British. 39, Demesne Road, Wallington. Research Chemist. *Signed by* : J. Kenyon, C. W. Davies, J. W. Smith.
- Barton, Norman**, B.Sc.Hons. (Lond.). British. 115, Crow Hill South, Alkington. Assistant Chemist, Research Department I.C.I. *Signed by* : M. A. T. Rogers, F. H. S. Curd, C. G. Raison.
- †**Baxandall, Gordon Alfred**, A.I.C. British. 21, Sunnycroft Road, Leicester. *Signed by* : L. Hunter, A. Hickling, A. H. Johnson.
- ‡**Bithell, Raymond John**, School Certificate. British. 14, Chetwynd Road, Ward End, Birmingham, 8. Analytical Chemist in works control laboratory. *Signed by* : J. W. Hewitt, E. G. K. Pritchett, J. Cooper Duff.
- †**Bridge, Allan Clare**, B.Sc.Hons. (Liverpool), A.I.C. British. 19, Braunton Road, Aigburth, Liverpool, 17. Research Chemist. *Signed by* : John Southwood, G. J. Pritchard, Eric J. Holland.
- ***Broughton, Peter Maxwell Grayson**, Intermediate Science and Subsidiary Physics. British. Barnhayes, Stoke Canon, Exeter. Student in Honours Chemistry at University College of South-West, Exeter. *Signed by* : H. T. S. Britton, R. King, S. J. Gregg.
- †**Campbell, Peter Nelson**, B.Sc. (Lond.), A.I.C. British. Westfield, Holbrook Lane, Chislehurst. Process Chemist at Standard Telephones and Cables, Ltd. *Signed by* : C. K. Ingold, J. N. E. Day, Henry Terrey.
- ***Corney, Norman Stanley**, Inter.B.Sc. British. Connaught Hall, Wessex Lane, Southampton. Student in Chemistry, University College, Southampton. *Signed by* : Ishbel G. M. Campbell, S. H. Harper, K. R. Webb.
- ***Davies, Robert Ernest**, B.Sc.Hons., M.Sc. (Manc.). British. 1, Endcliffe Crescent, Sheffield, 10. Temporary Assistant Lecturer in Chemistry at Sheffield University. *Signed by* : Brynmor Jones, R. D. Haworth, J. C. Speakman.
- ***Dewar, Eric Thomas**, B.Sc. (Edin.). British. 2, Eskbank Terrace, Eskbank, Dalkeith. *Signed by* : E. G. V. Percival, Neil Campbell, Christina C. Miller.
- Elliott, Michael**, Inter.B.Sc. (Lond.). British. Connaught Hall, Wessex Lane, Swaythling, Southampton. Chemistry Student, University College, Southampton. *Signed by* : S. H. Harper, K. R. Webb, N. K. Adam, Ishbel G. M. Campbell, G. W. Groves.
- †**Elwell, William Thomas**, F.I.C. British. Rushyford, Ripley Road, Norton, Stockton-on-Tees. Analytical Chemist. *Signed by* : James W. Dutton, Maddison Phillipson, Charles W. Scaife, F. R. Williams.
- Ewens, Ronald Victor George**, B.A., D.Phil. (Oxon). British. Chemistry Department, Guy's Hospital Medical School, Sherwood Park, Tunbridge Wells. Demonstrator. *Signed by* : Charles S. Gibson, F. H. Brain, G. Haslewood.
- †**Farrand, Eric Austin**, B.Sc. (Lond.), A.I.C. British. 2, Grove Mansions, Hammersmith Grove, W. 6. Analytical and Research Chemist. *Signed by* : Nathan Goldenberg, Charles H. F. Fuller, E. B. Hughes.
- ***Gate, Peter Atholl Jackson**, Inter.B.Sc. (Lond.). British. Hillcrest, Wycombe End, Beaconsfield. Student of Chemistry at University College of the South West, Exeter. *Signed by* : H. T. S. Britton, S. J. Gregg, R. King.
- ***Gill, Ronald**, B.Sc.Hons. (Lond.). British. 3, Lambourne Avenue, Eccleshill, Bradford. Research Chemist. *Signed by* : Derrick Rowley, R. M. Barrer, H. I. Stonehill.
- †**Green, Eric Harold**, B.Sc. (Lond.), A.I.C. British. 38, West Drayton Road, Hillingdon Heath. Research chemist, D.S.I.R. *Signed by* : F. S. Archer, E. J. Dickinson, L. Maddison.
- ***Greenaway, Ernest Walter**, Higher School Cert., B.Sc. (Subsidiary). British. 12, Elmore, Gloucester. Student of Chemistry at University College of the South-West, Exeter. *Signed by* : H. T. S. Britton, R. King, S. J. Gregg.
- (d)**Hargreaves, Gerald Henry**, A.R.C.S. British. Royal College of Science, South Kensington, S.W.7. Research Student. *Signed by* : E. R. H. Jones, L. N. Owen, A. H. Cook.
- †**Humphreys, James Leslie**, B.Sc. (Lond.), A.I.C. British. 139, Worton Road, Isleworth. Technical Chemist. *Signed by* : E. Lester Smith, A. L. Bacharach, W. E. James.
- ‡**Jackson, Edward William**, A.M.C.T. British. Station House, Whalley, Nr. Blackburn. Chief Chemist and Bacteriologist to Messrs. R. W. Holden, Ltd. *Signed by* : John K. Wood, O. Rhys Howell, G. Baddeley.
- †**Jones, Arthur George**, B.Sc. (Lond.), A.I.C. British. 8, The Close, Eccleston, St. Helens. Research Chemist, I.C.I. (General Chemicals), Ltd. *Signed by* : L. A. Haddock, L. J. Burrage, O. D. Mooney.
- †**Jones, John Mather**, A.I.C. English. 2, Hazelwood Road, Bush Hill Park, Enfield, 14. Chemist to Messrs. Marshalls Food Products, Ltd. *Signed by* : George Taylor, H. E. Cox, J. Hubert Hamence.
- Leeds, William George**, B.A. (Oxon). British. 29, Connaught Road, Hornchurch. Research Chemist. *Signed by* : Julius N. Ashley, R. Ghosh, J. A. Barltrop.
- ***Leslie, Ian**, B.Sc. (Aberd.). British. c/o Robinson, Shaggs, East Lulworth, Wareham. Research Chemist. *Signed by* : T. H. Reade, M. Bruce Watson, J. E. Humphries.
- ***McKail, John Ewing**, B.Sc.Hons. (Edin.). British. 14, Thirlestane Road, Edinburgh, 9. Assistant, Chemistry Department, University of Edinburgh. *Signed by* : E. G. V. Percival, Neil Campbell, James Kendall.
- MacLean, Colin George**. Diploma of Paisley Technical College (5 year course) in Inorganic Chemistry, Organic Chemistry, General Chemistry, Bleaching and Dyeing. British. 146, Rowan Street, Paisley. Chief Chemist, William Fulton & Sons, Ltd. *Signed by* : F. C. Wood, A. J. Hall, R. P. Foulds.
- McNab, John**, B.Sc. (Lond.). British. 47, Blockley Road, Wembley. Technical Officer, H.M.S. *Ferret*. *Signed by* : Fredk. S. Dainton, J. R. Partington, H. D. K. Drew.
- Mallet, Noel Percy**, B.Sc.Hons. (Lond.). English. 33, Wolseley Road, Crouch End, N. 8. Research Chemist at Vandervell Products, Ltd. *Signed by* : C. K. Ingold, J. N. E. Day, Henry Terrey.
- †**Mattana, Solomon**, B.Sc., Ph.D. (Lond.), A.I.C., A.C.G.F.C. British. 17, Allingham Court, Haverstock Hill, N.W. 3. Chemist (Pest Control) and Company Director. *Signed by* : David M. Freeland, Hubert H. Chambers, R. Leslie Collett.
- ***de Mayo, Paul José**, Inter. Science and Subsib. Maths. British. Clarendon House, Strand, Dawlish. Student (Univ. Coll. of the S. West) in Chemistry (Honours). *Signed by* : H. T. S. Britton, S. J. Gregg, R. King.

- ***Milsom, Philip Edward**. British. Queen's College, Oxford. Student of Chemistry, Oxford University. *Signed by* : W. Baker, E. Hope, R. M. Lodge.
- Moore, Cedric Duncan**. British. 31, Harcourt Road, Blackpool. Chief Chemist, Messrs. Koray, Ltd. *Signed by* : H. H. Hodgson, D. E. Hathway, R. Robinson.
- †**Moss, Arnold Alec Henry**, B.Sc. (Leeds), A.I.C., Diploma in Chemical Engineering (Univ. Coll., London). British. 1, French Barn Lane, Blackley, Manchester, 9. Works Chemist. *Signed by* : William Muir, J. Bruce, John P. Hatton.
- ***O'Sullivan, Desmond Gerard**, B.Sc.Hons. (Lond.). Research Student (Part-time) for Ph.D. (London) Degree. British. 18, Virginia Gardens, Barkingside, Ilford. Research Chemist in Works. *Signed by* : Ernest A. Rudge, F. L. Allen, K. G. A. Hammer.
- (b)**Payne, Douglas Sutherland**. British. 23, Whitehill Road, Gravesend. Student of Chemistry, Imperial College of Science and Technology. *Signed by* : H. J. Emelús, L. S. Theobald, H. J. T. Ellingham.
- †**Phillips, John Leslie**, B.Sc.Hons. (L'pool), A.I.C. British. Sellafeld Staff Club, Seascale. Plant Control Chemist. *Signed by* : A. McGookin, William Doran, Francis W. Kay.
- Polgar, Nicholas**, D.Phil. (Vienna). Austrian. Dyson Perrins Laboratory, South Parks Road, Oxford. Research Chemist. *Signed by* : Robert Robinson, D. Ll. Hammick, J. C. Smith, S. G. P. Plant.
- ***Potter, Elizabeth Mary**, B.A. (Oxon). British. 20, Manor Place, Holywell, Oxford. Research Student, Oxford. *Signed by* : Ronald P. Bell, H. M. Powell, L. E. Sutton.
- †**Robinson, Norman**, B.Sc.Hons. (Glas.). British. Craignure, Ivybank, Port Glasgow. Plant Chemist. *Signed by* : J. W. Cook, Stotherd Mitchell, David T. Gibson.
- †**Robinson, Rupert Eardley**, A.I.C., A.M.C.T. British. Delamere, Liverpool Road, Widnes. Works Chemist, Albright & Wilson, Ltd. *Signed by* : John K. Wood, O. Rhys Howell, T. K. Walker.
- (a)**Roux, Justin Edward**. British. 24, Grand Drive, Raynes Park. Research Assistant at the Wellcome Research Institution. *Signed by* : T. M. Sharp, K. S. Kirby, J. H. Gorvin.
- †**Schwartz, Helen Marie**, M.Sc. (Cape Town), A.I.C. British. Department of Chemistry, University of Cape Town, Rondebosch. Junior Lecturer, University of Cape Town. *Signed by* : W. S. Rapson, E. Newbery, W. Pugh.
- ***Seale, Frank**, B.Sc.Hons. (Liverpool). British. Lieut., R.E.M.E., 66 H.A.A. Regt., Workshop Section, India Command. H.M. Forces. *Signed by* : A. McGookin, Francis W. Kay, William Doran.
- ***Seed, Leslie**, B.Sc.Hons. (Manc.). British. Winnington Hall Club, Northwich. Research Chemist in employ of I.C.I. (Alkali), Ltd. *Signed by* : A. R. Todd, F. S. Spring, H. T. Openshaw.
- Simon, Rosemary Dora**, B.Sc. (Lond.). British. 34, Mount Park Avenue, S. Croydon. Research Assistant, Bland-Sutton Institute of Pathology. *Signed by* : C. K. Ingold, W. Lawson, H. G. Poole.
- ***Sing, Kenneth Stafford William**, Intermediate Science and Subsidiary Maths. British. Hillrise, Third Avenue, Teignmouth. Student at University College, Exeter (Chemistry Honours). *Signed by* : H. T. S. Britton, S. J. Gregg, R. King.
- †**Stark, George William Verdun**, B.Sc. (Lond.). British. 24, Brynmill Terrace, Brynmill, Swansea. Research Chemist. *Signed by* : D. T. Lewis, A. R. Ubbelohde, R. Robertson.
- Stockdale, Robert Andrew Gordon**, B.Sc. (Lond.). British. 6, Whinbush Road, Hitchin. Chemist. *Signed by* : E. de Barry Barnett, Leslie J. Walker, Bernard J. Styles.
- (d)**Strachan, Mark Noel**, B.Sc. (Lond.), A.R.C.S., A.I.C. British. The Orchard, Hook Green, Meopham. Research Chemist. *Signed by* : G. Rose, J. T. McCombie, E. R. H. Jones.
- ***Tatlow, John Colin**, B.Sc.Hons. (Birm.). British. 2a, Hollies Avenue, Cannock. Research Student, University of Birmingham. *Signed by* : W. N. Haworth, F. Smith, M. Stacey.
- ***Taylor, Harry Francis West**, B.Sc. (Lond.). British. 25, Cyril Avenue, Beeston. Demonstrator in the Department of Chemistry, University College, Nottingham. *Signed by* : D. O. Jordan, G. R. Barker, E. B. R. Prideaux, John C. Roberts.
- (c)**Touchin, Herbert Roy**, B.Sc. (Lond.). British. 62, Sandringham Road, Brislington, Bristol, 4. Industrial Chemist. *Signed by* : H. M. Hatherley, T. Malkin, John Floren.
- ‡**Wilson, David Mills**, B.Sc., Ph.D. (Glas.). British. 22, Falkland Road, Ayr. Fuel Technologist (Babcock and Wilcox). *Signed by* : A. B. Crawford, M. M. J. Sutherland, H. G. A. Anderson.
- ‡**Yeomans, Frank William**, M.P.S. (Gt. Britain and S. Africa). British. 76, Henley Street, Sparkbrook, Birmingham. Manufacturing and Retail Chemist. *Signed by* : Philip F. Rowsell, Rupert Woolby Brooke, J. Newton Friend.

UNDER SPECIAL PROVISION APPERTAINING TO CANDIDATES RESIDENT ABROAD.

- †**Shuttleworth, Stanley Gordon**, M.Sc. and Ph.D. (S. Africa), F.I.C., South African. Leather Industries Research Institute, Rhodes University College, Grahamstown. Director of Research of the Leather Industries Research Institute, Research Professor at Rhodes University College, and Assistant Controller of Leather. *Signed by* : J. Smeath Thomas, W. F. Barker.
- Stephen, Alistair Matthew**, M.Sc. (Cape Town). South African. c/o Leather Industries Research Institute, Grahams-town. Research Chemist (Organic Chemistry) at Leather Industries Research Institute. *Signed by* : J. Smeath Thomas, W. F. Barker.
- ‡**Wallerstein, Leo**. American. 180, Madison Avenue. New York, 16, N.Y. President, Wallerstein Company, Inc. *Signed by* : Foster Dee Snell.

* Reduced annual subscription.

† Three-body.

‡ Two-body.

(a) Joint Student Membership two-body.

(b) Joint Student Membership three-body.

(c) Joint Junior Membership two-body.

(d) Joint Junior Membership three-body.

PAPERS RECEIVED

List of papers received between October 21st and November 19th, 1943. (This list does not include the titles of papers which have been read at a Scientific Meeting or which have appeared in the *Journal*.)

- "Aminoacridines. Some partition- and surface-phenomena." By A. ALBERT, R. GOLDACRE, and E. HEYMANN.
- "The triterpene resinols and related acids. Part XV. The dehydration of α -amyrin and α -amyradienol with phosphoric oxide: 1- α -amyradiene and 1- α -amyratriene." By E. S. EWEN, A. E. GILLAM, and F. S. SPRING.
- "5-(*p*-Aminobenzenesulphonamido)thiazole." By M. H. M. ARNOLD and C. W. SCAIFE.
- "Experiments on the interaction of hydroxy-compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases. Part I. Optically active β -octanol, ethyl mandelate, and phenylmethylcarbinol." By W. GERRARD.
- "The dibenzoates of sorbitol and mannitol and their methylene derivatives." By W. N. HAWORTH and L. F. WIGGINS.
- "The epimerisation of some dimethylene saccharic acids and their derivatives." By W. N. HAWORTH, W. G. M. JONES, M. STACEY, and L. F. WIGGINS.
- "Some derivatives of glucosaccharic acid." By W. N. HAWORTH and W. G. M. JONES.
- "2-Methylmesobenzanthrone and some derivatives." By D. H. HEY, R. J. NICHOLLS, and C. W. PRITCHETT.
- "Studies in the polyene series. Part XII. Ethynylcarbinols from sorbaldehyde and octatrienal. Poly-carbon anionotropic rearrangements." By I. M. HEILBRON, E. R. H. JONES, and J. T. MCCOMBIE.
- "Studies in the polyene series. Part XIII. Acetylenylglycols from polyene aldehydes and their rearrangement with acids." By I. M. HEILBRON, E. R. H. JONES, and R. A. RAPHAEL.
- "Studies in the polyene series. Part XIV. Anionotropic rearrangements of the carbinols obtained from condensation of crotonaldehyde with both vinyl- and 2-methylvinyl-acetylene." By I. M. HEILBRON, E. R. H. JONES, and B. C. L. WEEDON.
- "Studies in the polyene series. Part XV. The condensation of carbonyl compounds with propenyl-ethynylcarbinol and hex-3-en-5-yn-2-ol." By J. CYMERMAN, I. M. HEILBRON, A. W. JOHNSON, and E. R. H. JONES.
- "Studies in the polyene series. Part XVI. The condensation of $\alpha\beta$ -unsaturated ketones with 1-hexyne." By J. CYMERMAN, I. M. HEILBRON, and E. R. H. JONES.
- "3-Chloro-1- α -chlorovinyl- Δ^3 -cyclohexene and 1:5-dichloro- $\Delta^{1:5}$ -cyclooctadiene." By J. G. T. BROWN, J. D. ROSE, and J. L. SIMONSEN.
- "Absorption spectra and the structure of pyrethrins I and II. Part II." By A. E. GILLAM and T. F. WEST.
- "The structure of pyrethrolone and related compounds." By T. F. WEST.
- "The constitution of the so-called carbothialdines and the preparation of some homologous compounds." By A. D. AINLEY, W. H. DAVIES, H. GUDGEON, J. C. HARLAND, and W. A. SEXTON.
- "Thermodynamic dissociation constants of hydroxy- and alkoxy-benzoic acids." By BRYNMOR JONES and J. C. SPEAKMAN.
- "Rubber, polyisoprenes, and allied compounds. Part VI. The mechanism of halogen-substitution reactions." By G. F. BLOOMFIELD.
- "Rubber, polyisoprenes, and allied compounds. Part VII. Additive halogenation of rubber and of dihydromyrcene." By G. F. BLOOMFIELD.
- "2:4-Diarylpyrroles. Part IV. The mechanism of the Leuckart reaction on β -benzoyl- α -phenylpropionitrile." By W. H. DAVIES and M. A. T. ROGERS.
- "The constitution of yeast ribonucleic acid. Part VII. Diffusion coefficients and molecular weights." By W. E. FLETCHER, J. M. GULLAND, D. O. JORDAN, and (in part) H. E. DIBBEN.
- "The constitution of yeast ribonucleic acid. Part VIII. Electrometric titration of the acidic groups." By W. E. FLETCHER, J. M. GULLAND, and D. O. JORDAN.

THE CHEMICAL SOCIETY

NOTICE OF FORTHCOMING SCIENTIFIC MEETINGS

IN LONDON (Burlington House).

Thursday, January 20th, 1944, at 2.30 p.m.

Tilden Lecture on "The Scope and Limitations of Infra-red Measurements in Chemistry," by Dr. H. W. Thompson, M.A.

Thursday, February 17th, 1944, at 2.30 p.m.

Lecture on "Chemotherapy in Tropical Medicine," by Dr. A. J. Ewins, F.R.S.

OUTSIDE LONDON.

EDINBURGH.

Friday, February 11th, 1944, at 7.30 p.m.

Lecture on "Molecular Regimentation in Solid and Liquid," by Professor G. M. Bennett, M.A., Sc.D., F.I.C. To be held in the Lecture Theatre, Medical Chemistry Department, The University, Teviot Place.

GLASGOW.

Friday, February 18th, 1944, at 7.30 p.m.

Tilden Lecture on "The Scope and Limitations of Infra-red Measurements in Chemistry," by Dr. H. W. Thompson. To be held at the Royal Technical College, and to be preceded at 7 p.m. by the Annual General Meeting of Local Fellows.

LIVERPOOL.

Thursday, January 13th, 1944, at 4 p.m.

Lecture on "The 'Reactivity' of Organic Compounds," by Professor E. D. Hughes, D.Sc., Ph.D., F.I.C. Joint Meeting with the Royal Institute of Chemistry, Society of Chemical Industry, and British Association of Chemists. To be held in the Muspratt Lecture Theatre of the University.

MANCHESTER.

Thursday, January 20th, 1944, at 6.30 p.m.

Lecture on "Pyrethrum and the Pyrethrins," by Dr. A. E. Gillam. Joint Meeting with the Local Section of the Royal Institute of Chemistry. To be held in the Engineers' Club, Albert Square.

NORTH WALES.

Friday, February 11th, 1944, at 5.30 p.m.

Lecture on "Substitution," by Professor C. K. Ingold, D.Sc., F.R.S. Joint Meeting with the University College of Bangor Chemical Society. To be given in the Chemistry Lecture Theatre of University College, Bangor.

SHEFFIELD.

Friday, February 11th, 1944, at 5.30 p.m.

Lecture on "The Synthesis of Chemotherapeutic Agents," by Mr. S. Ellingworth, M.Sc. To be held in the Chemistry Lecture Theatre of the University.

SOUTH WALES.

Friday, January 21st, 1944, at 6 p.m.

At Cardiff.

Lecture on "Chemical Reactivity," by Professor E. D. Hughes, D.Sc., Ph.D. Joint meeting with the Cardiff Technical College Chemical Society. To be held at the Technical College.

Saturday, February 12th, 1944, at 3.30 p.m.

Lecture on "The Study of Reaction Mechanism," by Dr. H. B. Watson. Joint meeting with the Royal Institute of Chemistry. To be held at University College, Cathays Park.

Saturday, January 22nd, 1944, at 3 p.m.

At Swansea.

Lecture on "Chemical Reactivity," by Professor E. D. Hughes, D.Sc., Ph.D. Joint meeting with the University College Students' Chemical Society. To be held in the Chemistry Department of University College.

DUBLIN.

Wednesday, February 23rd, 1944, at 7.30 p.m.

Lecture on "Monomolecular Films," by Dr. V. E. J. Davidson. Joint meeting with the Southern Ireland Section of the Royal Institute of Chemistry. To be held in the Chemistry Theatre, University College, Dublin.

PROCEEDINGS
OF THE
CHEMICAL SOCIETY.

OFFICIAL ANNOUNCEMENTS

DEATHS.

The Council regret to announce the deaths of the following Fellows :

	Elected.	Died.
John Bridgeford Coppock	1890	December 3rd, 1943.
James Flint	1928	October 21st, 1943.
Christopher Colborne Graham	1880	November 22nd, 1943.
Alexander Lauder	1891	November 11th, 1943.
Harry Hollis Robins	1889	October 23rd, 1942.

CONGRATULATIONS.

The congratulations of the Council have been conveyed to the following Fellows, who have completed 60 and 50 years of Fellowship :

60 years of Fellowship.

	Elected.
Gordon Crewe Chambres	December 6th, 1883.
Reginald Graham Durrant	" "

50 years of Fellowship.

Frank Browne	December 7th, 1893.
John Dixon Brunton	" "
Henry Edwin Hadley	" "
Henry Ormsby Hale	" "
Harold Harris	" "
Harold Bertram Holthouse	" "
Philip Schidrowitz	" "

ACKNOWLEDGMENTS.

The Council have expressed their thanks to Mr. A. M. Bremner, Dr. F. A. Freeth, and Professor D. H. Peacock for contributions to the Publications Fund.

REPRESENTATIVE FOR CANADA.

Professor W. D. McFarlane, M.A., Ph.D. (Macdonald College, St. Anne de Bellevue, Quebec, Canada), has accepted the invitation of the Council to act as Representative of the Society for Canada. Fellows residing in Canada are invited to communicate with Professor McFarlane for information regarding the activities of the Society.

ANNUAL REPORTS FOR 1942, VOLUME XXXIX.

The Council regret to state that the stock of the Annual Reports for 1942 (Volume XXXIX) is now exhausted. It is hoped to reproduce this volume after the War.

RESEARCH GRANT.

The Council have made the following grant from Research Fund :

Plant products of New Zealand. (L. H. Briggs)	<i>£</i> <i>s.</i> <i>d.</i> 10 0 0
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FELLOWSHIP.

The following 58 candidates were elected Fellows of the Chemical Society on December 16th, 1943 :

Ian Glyn Anderson.	Edward William Jackson.	Norman Robinson.
Norman Barton.	Arthur George Jones.	Rupert Eardley Robinson.
Gordon Alfred Baxandall.	John Mather Jones.	Justin Edward Roux.
Raymond John Bithell.	William George Leeds.	Helen Marie Schwartz.
Allan Clare Bridge.	Ian Leslie.	Frank Seale.
Peter Maxwell Grayson Broughton.	John Ewing McKail.	Leslie Seed.
Peter Nelson Campbell.	Colin George MacLean.	Stanley Gordon Shuttleworth.
Norman Stanley Corney.	John McNab.	Rosemary Dora Simon.
Robert Ernest Davies.	Noel Percy Mallet.	Kenneth Stafford William Sing.
Eric Thomas Dewar.	Solomon Mattana.	George William Verdun Stark.
Michael Elliott.	Paul José de Mayo.	Alistair Matthew Stephen.
William Thomas Elwell.	Philip Edward Milsom.	Robert Andrew Gordon Stockdale.
Ronald Victor George Ewens.	Cedric Duncan Moore.	Mark Noel Strachan.
Eric Austin Farrand.	Arnold Alec Henry Moss.	John Colin Tatlow.
Peter Atholl Jackson Gate.	Desmond Gerard O'Sullivan.	Harry Francis West Taylor.
Ronald Gill.	Douglas Sutherland Payne.	Herbert Roy Touchin.
Eric Harold Green.	John Leslie Phillips.	Leo Wallerstein.
Ernest Walter Greenaway.	Nicholas Polgar.	David Mills Wilson.
Gerald Henry Hargreaves.	Elizabeth Mary Potter.	Frank William Yeomans.
James Leslie Humphreys.		

GENERAL ANNOUNCEMENTS
PUBLICATIONS OF THE AMERICAN CHEMICAL SOCIETY.

	Price to Public.	Postage.
(1) <i>Journal of the American Chemical Society</i>	\$8.50	\$1.50
(2) <i>Chemical Abstracts</i>	\$12.00	\$2.40
(3) <i>Industrial and Engineering Chemistry</i> :		
(a) Industrial Edition (monthly) and Analytical Edition (monthly), sold only as a unit	\$4.00	\$2.25
(b) Chemical and Engineering News (semi-monthly)	\$2.00	\$0.60
(a) and (b) together	\$6.00	\$2.85

A discount of 10 per cent. is allowed on (1) and (2) when sent to same address and ordered at the same time. No discount on (3).

A special discount of 10 per cent. off all the above prices (exclusive of postage) is allowed to Fellows of the Chemical Society who are not Members of the American Chemical Society.

Fellows residing in Canada pay one-third postage rates and for those residing in countries in the Pan-American Union and Spain there is no charge for postage.

Application should be made direct to the Secretary, American Chemical Society, 1155, Sixteenth Street, N.W., Washington, D.C., U.S.A.

<i>Chemical Reviews</i> (bi-monthly, 2 vols. per year)	{ \$4.00 per vol. } postage	
	{ \$7.00 per year. }	\$0.50 per vol.

Application should be made to the Williams and Wilkins Company, Mount Royal and Guilford Avenues, Baltimore, Md., U.S.A.

NOTE.—Permission to remit money abroad must be obtained through a Bank.

The American Chemical Society regrets that owing to restrictions in the use of paper, no new subscriptions can be entertained.

UNITED STATES OFFICE OF WAR INFORMATION REFERENCE LIBRARY.

The American Embassy in London invite Fellows of the Society to make use of their Special War Reference Library (Room 21, 1, Grosvenor Square, W. 1), which contains basic printed data explanatory of all phases of American life, and recent data on other subjects published in the United States. Every effort is being made to secure the rapid transmittal of at least a single copy of a wide range of American periodicals, books, and documents. The library is open on week-days from 9 a.m. to 6 p.m.

LIST OF APPLICATIONS FOR FELLOWSHIP

(Fellows wishing to lodge objections to the election of these candidates should communicate with the Honorary Secretaries not later than Monday, January 17th, 1944. Such objections will be treated as confidential. The forms of application are displayed in the Library.)

- ***Bell, Marjorie**, B.Sc.(Lond.). British. Rylstone, 38, Muncaster Gate, York. Student of University of London, Institute of Education. *Signed by* : T. S. Moore, M. M. T. Plant, F. H. Lowe.
- †**Bolland, Clifford Beaumont**, B.Sc.Hons. and M.Sc. (Leeds), A.I.C., A.M.Inst.Gas.Eng., Assoc.M. Coke Oven Managers Assoc. British. Three Trees, Darby Road, Burton-on-Stather. Chief Chemist and Chief of Technical Department. *Signed by* : T. P. Dee, H. J. Hodsman, D. T. A. Townend.
- (c)**Calvert, Ronald**, B.Sc.Hons. (Manc.). British. 49, Crawford Street, Monton, Eccles. Assistant Research Chemist. *Signed by* : N. Lewton-Brain, James Coen, E. Mitchell Learmonth.
- ***Chivers, Anthony Robert Lewis**, Demyship, Magdalen College, Oxford, Higher Certificate (Oxford and Cambridge) with distinctions in Physics and Chemistry. British. 38, Melbury Avenue, Southall. Student of Chemistry at Magdalen College. *Signed by* : F. E. King, Ronald P. Bell, L. E. Sutton.
- ***Cole, Edward Harry**. British. Exeter College, Oxford. Undergraduate reading for Honours Degree in Natural Science (Chemistry). *Signed by* : C. N. Hinshelwood, R. M. Lodge, Ronald P. Bell, Harry Irving.
- ***Coupe, Raymond Richard**, B.Sc. (Lond.). British. 3, Teddington Park, Teddington. Research Chemist at Paint Research Station. *Signed by* : C. W. Davies, S. H. Bell, L. A. Jordan.
- †**Cudlipp, Gerald William**, B.Sc.Hons. (Lond.), Board of Education Teachers' Certificate. Teachers' Diploma, Exeter. British. Analytical Chemist. *Signed by* : J. E. Mills, K. A. Graham, C. L. Knight.
- ***deVoil, Michael John Scott**, Inter.B.Sc. (Lond.). British. 92, Nether Street, Finchley, N. 12. Student. *Signed by* : Ishbel G. M. Campbell, N. K. Adam, K. R. Webb.
- (d)**Elvidge, John Arthur**, A.R.C.S. British. Southcroft, Old Barn Lane, Croxley Green. Research Student. *Signed by* : A. H. Cook, E. R. H. Jones, L. N. Owen.
- †**Green, Gerald Herman**, B.Sc.Tech. (Manc.), A.I.C. British. 36, Montpelier Rise, Wembley. Senior Chemist, J. Lyons & Co., Ltd. *Signed by* : Leslie H. Lampitt, J. Kenner, O. Rhys Howell, John K. Wood.
- Groenewoud, Philippus Wilhelmus Gerhardus**, M.Sc. (S. Africa), D.Phil. (Oxon). South African. University College of the Orange Free State, Bloemfontein. Professor of Organic Chemistry. *Signed by* : Robert Robinson, W. Baker, S. G. P. Plant.
- (d)**Hull, Roy**, B.Sc.Hons. (Lond.), A.I.C. British. 91, Hall Lane, Farnworth, Nr. Bolton. Assistant Chemist in a Research Department. *Signed by* : C. H. Vasey, R. Greenhalgh, C. G. Raison.
- †**Jackman, Agnes**, A.R.C.Sc.I. (now B.Sc. National University, Dublin), B.Sc. (Lond.), A.I.C. British. 55 Spencer Park, Wandsworth, S.W. 18. Lecturer in Chemistry, King's College of Household and Social Science, University of London. *Signed by* : C. K. Tinkler, A. Hickling, L. Hunter.
- †**Keaton, James**, A.I.C. British. 20, The Grove, Benton. Industrial Chemist. *Signed by* : G. R. Clemo, Richard Raper, Wesley Cocker.
- Lawther, Patrick Joseph**. British. Kingfield, Montagu Drive, Oakwood, Leeds, 8. *Signed by* : Bernard Hickson, A. R. Harriman, B. E. Pritchard.
- ***Lever, Donald McNeill**. British. 11, Beech Grove, Fallowfield, Manchester. Student at College of Technology, Manchester, for B.Sc.Tech. (Honours) in Applied Chemistry. *Signed by* : J. Kenner, G. Baddeley, J. W. Batty.
- Loo, John Ti-Li**, B.Sc. (National Tsing-Hua Univ.). Chinese. Magdalen College, Oxford. Senior Student, University of Oxford. *Signed by* : Robert Robinson, R. Ghosh, D. Holmes, John B. Jepson.
- Mancera, Octavio**, B.Sc. (National University of Mexico). Mexican. Magdalen College, Oxford. Research Work at the Dyson Perrins Laboratories, Oxford. *Signed by* : Ronald P. Bell, R. Robinson, Arthur J. Birch.
- †**Marsh, John Ronald**, A.I.C. British. 122, High Road, S. Woodford, E. 18. Chemist in Research and Development Laboratory of Cork Manufacturing Co., Ltd., and Flexo Plywood Industries, Ltd. *Signed by* : J. H. Wilkinson, R. W. Jukes, I. L. Finar.
- Marshall, John Ray**, Higher School Certificate and School Certificate. British. Duncombe, Aldbury, Tring. Undergraduate of Magdalen College, Oxford. Reading Chemistry. *Signed by* : L. E. Sutton, Ronald P. Bell, R. M. Lodge.
- ***Meakin, Joan**, B.Sc. (Lond.). British. 15, Rowditch Avenue, Derby. Student of University of London, Institute of Education. *Signed by* : T. S. Moore, M. M. T. Plant, F. H. Lowe.
- ***Morley, John Selwyn**, Inter.B.Sc. (Dun.). British. Durham Castle, Durham. Honours Student in Chemistry, University College, Durham University. *Signed by* : G. H. Christie, C. W. Gibby, J. C. E. Simpson.
- †**Moss, Donald Ernest**, B.Sc. (Lond.), A.I.C. British. Manton, 172, Sutton Road, Mansfield. Works Chemist. *Signed by* : D. O. Jordan, G. R. Barker, E. O'F. Walsh.
- Muir, Isabella Helen Mary**, B.A.Hons. (Oxon.) British. Beckside House, Old Catterick. Research Chemist, Oxford University. *Signed by* : Ronald P. Bell, J. C. Smith, J. A. Barltrop.
- (a)**Ofner, Peter**, Inter.B.Sc., Subsid.B.Sc.Physics (Lond.), Registered for B.Sc. (Special), June 1945. German. 22, Catterick Road, East Didsbury, Manchester, 20. Laboratory Assistant with Victor Wolf, Ltd. *Signed by* : John Graymore, A. Wolf, F. Howlett.
- Oldbury, Edward Brooke**, School Certificate of Northern Universities. English. 43, Kenilworth Gardens, South Shore, Blackpool. Research Chemist at Koray, Ltd. *Signed by* : Ernest Taylor, Walter Tebrich, W. Atherton.
- †**O'Neill, Hugh Anthony**, B.A., M.Sc. (N.U.I.), A.I.C. Irish. c/o Messrs. Lorrilleux & Bolton, Ashley Road, Tottenham, N. 17. Assistant Chemist. *Signed by* : Alex Findlay, G. N. Burkhardt, J. B. Firth, R. Leslie Collett.
- †**Pawson, Eric**, B.Sc. (Lond.), A.I.C. British. Beru, Scawby Brook, Brigg. Chief Chemist, The Farmers' Co., Ltd. *Signed by* : A. J. Suthers, Harry Thompson, Edward Chapman.
- (c)**Pullin, Alan David Escott**, B.Sc. (Lond.). English. Kims, Orchard Lane, Amersham. Chemist. *Signed by* : W. P. Grove, Douglas R. K. Coleman, H. G. Poole.
- Quayle, Alan**, B.Sc.Hons. (Manc.). British. Ryedale, 27, Skipper's Lane, Normanby, Middlesbrough. Officer-Cadet, Royal Corps of Signals. *Signed by* : M. Polanyi, F. S. Spring, J. Wardleworth.

- †**Rich, Albert Charles**, B.Sc.(Econ.) Hons. (Lond.), A.I.C. British. 18, Drayton Park Avenue, West Drayton. Chemist. *Signed by* : J. O'Mara-Bockris, B. G. Welsh, J. F. Herringshaw.
- †**Rose, Maurice James**, B.Sc., Ph.D. (Lond.), A.I.C. British. 40, Panton Road, Hoole, Chester. Research Chemist. *Signed by* : Samuel Smiles, R. H. Hunter, B. D. W. Luff.
- ***Smith, Jack**, H.S.C. Nat. Science Demyship, Magdalen College, Oxford. English. 38, Burnside Road, Kendal. Reading Chemistry at Oxford University. *Signed by* : L. E. Sutton, Ronald P. Bell, H. M. Powell.
- ***Sykes, Keble Watson**, B.A. (Oxon). British. The Queen's College, Oxford. Advanced Student at Oxford engaged in research in Chemistry. *Signed by* : Ronald P. Bell, E. J. Bowen, Richard Barrow.
- †**Walker, Herbert**, B.Sc. (Lond.), A.I.C. British. 14, Allerton Grove, Higher Tranmere, Birkenhead. Chemist. *Signed by* : A. E. Findley, R. R. Butler, James Smith.
- ***Warren, Donovan Teighe**, Inter.B.Sc. (Lond.). English. 49, Canning Road, Addiscombe. Fireman (N.F.S.). Temporary war-time service. Private study with view to graduation. *Signed by* : John H. Gorvin, J. A. Goodson, W. Solomon.
- ***Watkinson, Deryck Hague**, Inter.B.Sc. (Lond.), B.Sc. (Special), Subsidiary Physics. British. 4, Leacroft Road, Chorlton-cum-Hardy, Manchester, 21. Chemist. *Signed by* : John Graymore, I. Goodman, James T. Kendall.
- ***Williams, Charles Frederick**, Inter.B.Sc. British. 17, Lodge Road, Southampton. Junior Chemist. Pirelli General Cable Works, Ltd. Part time student for B.Sc. (Special) at University College, Southampton. *Signed by* : S. H. Harper, I. G. M. Campbell, K. R. Webb.
- Wright, William Herbert Garfield**, Part I B.Sc. (L'pool). British. 180, South Mossley Hill Road, Grassendale, Liverpool, 19. Technical Assistant. *Signed by* : A. Cooksey, E. Foley, Francis W. Kay.
- (d)**Wyse, William John**, Inter.B.Sc. and 1st part B.Sc. Special (Lond.). British. 80, Links Road, Ashtead. Laboratory Assistant. *Signed by* : E. W. F. Gillham, W. C. J. Ross, W. Davey.

UNDER SPECIAL PROVISION APPERTAINING TO CANDIDATES RESIDENT ABROAD.

- †**Bolton, Elmer Keiser**, A.B. (Bucknell Univ.) 1908, Hon.D.Sc., 1932, A.M. (Harvard) 1910, Ph.D., 1913, Hon.D.Sc. (Univ. of Delaware), 1942, student Kaiser Wilhelm Inst. für Chemie, Berlin, 1913-1915, Recipient, Chemical Industry Medal, 1941, E. I. du Pont de Nemours & Co., Chemist, Experimental Station, 1915-1917, Organic Division, 1917, Assistant Manager, Lodi Works, 1918, Manager, Organic Division Chemical Department, 1919-1921, Director, Chemical Section, Dyestuffs Dept., 1921-1929, Assistant Chemical Director, 1929-1930, Chemical Director, 1930- American. E. I. du Pont de Nemours & Co., Technical Library. *Signed by* : William S. Calcott.
- †**Charap, Myer Martin**, B.Sc. (Lond.), F.I.C. British. Calle Moreno 888, Buenos Aires. Industrial Chemist. *Signed by* : Charles Dorée.
- Mills, Thomas George David**. Australian. 5, Hindon Street, Blackburn, Victoria, Australia. Aircrew (Observer) duties with Royal Australian Air Force in England. *Signed by* : F. J. Watson.
- †**Morton, Ian Douglas**, M.Sc. (Univ. of New Zealand), A.I.C. British. Egmont Village, Tararaki, N.Z. Research Chemist at Dairy Research Institute, N.Z. *Signed by* : P. W. Robertson, F. H. McDowell.
- * Reduced annual subscription. (a) Student Membership two-body.
 † Three-body. (b) Student Membership three-body.
 ‡ Two-body. (c) Junior Membership two-body.
 (d) Junior Membership three-body.

PAPERS RECEIVED

List of papers received between November 19th and December 16th, 1943. (This list does not include the titles of papers which have been read at a Scientific Meeting or which have appeared in the *Journal*.)

- "A new method of nuclear methylation of aromatic amines." By (MISS) M. G. BARCLAY, A. BURAWOY, and G. H. THOMSON.
- "Studies on hydrogen cyanide. Part XIII. The dielectric constant of anhydrous hydrogen cyanide." By G. E. COATES and J. E. COATES.
- "The action of cuprous oxide on diazotised amines. Part III. In sulphuric acid-glacial acetic acid medium." By H. H. HODGSON, S. BIRTWELL, and E. MARSDEN.
- "Benzcyclooctatetraenes. Part V. The absorption spectra of tetraphenylene and 1:2:3:4:5:6-tribenz- $\Delta^{1:3:5:7}$ -cyclooctatetraene in relation to their structures." By W. S. RAPSON, (MISS) H. M. SCHWARTZ, and E. T. STEWART.
- "Derivatives of monosilane. Part III. The fluoromonosilanes." By H. J. EMELÉUS and A. G. MADDOCK.
- "Some new ethyl and phenyl silicon fluorides." By H. J. EMELÉUS and C. J. WILKINS.
- "Rubber, polyisoprenes, and allied compounds. Part VIII. Reaction with nitric oxide." By G. F. BLOOMFIELD and (in part) G. A. JEFFREY.
- "The mechanism of the reaction of (-)-phenylalkylcarbinols with hydrogen bromide." By C. L. ARCUS.