

INDEX OF AUTHORS, 1952.

A.

- Abadir, B. J., Cook, J. W., Loudon, J. D., and Steel, D. K. V.**, tropolones. Part V. Halogenocycloheptatrienones, 2350.
- Abbott, D. C., and Arcus, C. L.**, the addition of acyl hypobromides to styrene, 1515.
- addition and substitution with the bromine cation in aqueous solution, 2934.
- the conversion of silver (+)-2-ethylhexanoate into (+)-3-bromoheptane, 3195.
- Abd-el Halim, F. M.** See **Bradley, D. C.**
- Acheson, R. M.**, some reactions of 3-methylcyclopent-2-enone, 3415.
- Acheson, R. M., and Robinson, Sir R.**, experiments bearing on the synthesis of cortisone. Part I. Some cyclopentenone derivatives, 1127.
- Addison, C. C., and Conduit, C. P.**, the liquid dinitrogen tetroxide solvent system. Part XI. Compound formation and ionic species in solutions of diethylnitrosamine in liquid dinitrogen tetroxide. Part XII. Amphoteric reactions involving zinc compounds, 1390, 1399.
- Addison, C. C., Gamlen, G. A., and Thompson, R.**, the ultra-violet absorption spectra of sodium hyponitrite and sodium α -oxyhyponitrite: the analysis of mixtures with sodium nitrite and nitrate, 338.
- the oxidation of sodium hyponitrite and sodium α -oxyhyponitrite with dinitrogen tetroxide, 346.
- Addison, C. C., and Lewis, J.**, the electrical conductivity of liquid dinitrogen tetroxide, 4079.
- Ahlers, N. H. E., and Ligthelm, S. P.**, the infra-red spectra of methyl ximenynate and ximenynyl alcohol, 5039.
- Ahmad, R., Sondheimer, F., Weedon, B. C. L., and Woods, R. J.**, studies in the polyene series. Part XLIV. The preparation of oct-4-ene-2:7-dione and octa-3:5-diene-2:7-dione, intermediates for the synthesis of carotenoids; the anionotropic rearrangement of some hexa-2:5-diene-1:4-diols, 4089.
- Akher, M. A., Smith, F., and Spriestersbach, D.**, the constitution of mesquite gum. Part IV. Determination of the structure of the amide of 6- β -(4-methyl-D-glycopyruonosyl)- α -methyl-D-galactopyranoside, 3637.
- Alberman, K. B., Haszeldine, R. N., and Kipping, F. B.**, studies in spectroscopy. Part I. Steric effects in some substituted butadienes and cyclobutanes, 3284.
- Albert, A., Brown, D. J., and Cheeseman, G.**, pteridine studies. Part II. 6- and 7-Hydroxypteridines and their derivatives. Part III. The solubility and the stability to hydrolysis of pteridines, 1620, 4219.
- Albert, A., and Hampton, A.**, analogues of 8-hydroxyquinoline having additional cyclic nitrogen atoms. Part I. Preparative, 4985.
- Alford, E. J., Irving, H., Marsh, H. S., and Schofield, K.**, cinnolines. Part XXIX. 8-Hydroxycinnoline and some of its derivatives, 3009.
- Alford, E. J., and Schofield, K.**, cinnolines. Part XXVIII. The nature of the C₉-position. Part I. The Neber-Bossel synthesis of 3-hydroxycinnoline, 2102.
- Allan, G. G., Maclean, D., and Newbold, G. T.**, condensation products of rhodanine and keto-acids, 5053.
- Allen, M. J., Fearn, J. E., and Levine, H. A.**, substituted aromatic glycols prepared by electrolytic reduction, 2220.
- Allen, M. J.** See also **Levine, H. A.**
- Allerton, R., and Overend, W. G.**, the reaction of some sugar acetates with ammonia, 35.
- Allerton, R., Overend, W. G., and Stacey, M.**, deoxy-sugars. Part XXXIII. An extension of the investigation of the Dische reaction, 255.
- Almond, C. Y., and Mann, F. G.**, the structure and properties of certain polycyclic indolo- and quinolino-derivatives. Part V. Derivatives of 1:2-dihydro-1-keto-4:5-dimethyliline, 1870.
- Ames, D. E., and Bowman, R. E.**, synthetic long-chain aliphatic compounds. Part VIII. The preparation of *cis*- and *trans*-Undec-9-enoic acids. Part IX. Some anti-tuberculous long-chain amines, 677, 1057.
- Ames, D. E.** See also **Boughton, B. W.**
- Ames, T. R., Davy, G. S., Halsall, T. G., and Jones, E. R. H.**, the chemistry of the triterpenes. Part XII. The action of formic acid on lupeol, 2868.
- Amphlett, C. B., and Davidge, O. T.**, the solubility of uranyl oxalate in nitric acid, 2938.
- Anand, N., Clark, V. M., Hall, Ross H., and Todd, A. R.**, nucleotides. Part XV. A synthesis of uridine-5' pyrophosphate, a breakdown product of the coenzyme "uridine-diphosphate-glucose," 3665.
- Andersen, W., Dekker, C. A., and Todd, A. R.**, nucleotides. Part XIV. A method suitable for the large-scale preparation of deoxyribonucleosides from deoxyribonucleic acids, 2721.
- Anderson, A. S., Barker, G. R., Gulland, J. M., and Lock, M. V.**, the constitution of yeast ribonucleic acid. Part XV. The mode of union of the nucleotides, 369.
- Anderson, R. C., Stevenson, R., and Spring, F. S.**, steroids. Part II. 22:23-Dibromoergosta-7:9(11)-dien-3 β -yl acetate (ergosteryl-D acetate 22:23-dibromide), 2901.
- Anderson, W.**, condensation of *N*-phenylhydroxylamine with *NN*-dimethyl-*p*-nitrosoaniline; the azoxy-compounds derived from *p*-dimethylaminoazobenzene, 1722.
- Andon, R. J. L., and Cox, J. D.**, phase relationships in the pyridine series. Part I. The miscibility of some pyridine homologues with water, 4601.
- Andrews, K. J. M., Atherton, F. R., Bergel, F., and Morrison, A. L.**, the synthesis of neurotropic and musculotropic stimulators and inhibitors. Part V. Derivatives of amino-phenyl phosphates as anticholinesterases, 780.
- Andrews, P., Hough, L., and Jones, J. K. N.**, mannose-containing polysaccharides. Part II. The galactomannan of fengreek seed (*Trigonella fenum-graecum*), 2744.
- Angyal, C. L., and Angyal, S. J.**, cyclitols. Part II. Dipole moments of some cyclitol acetates, 695.
- Angyal, C. L., and Le Fèvre, R. J. W.**, the apparent dipole moments of water and hydrogen sulphide dissolved in benzene, 1651.
- Angyal, C. L., and Werner, R. L.**, the tautomerism of *N*-hetero-aromatic amines. Part II. Infra-red spectroscopic evidence, 2911.
- Angyal, C. L.** See also **Angyal, S. J.**
- Angyal, S. J., and Angyal, C. L.**, the tautomerism of *N*-hetero-aromatic amines. Part I, 1461.
- Angyal, S. J., and Macdonald, C. G.**, cyclitols. Part I. *iso*-Propylidene derivatives of inositols and quercitols. The structure of pinitol and quebrachitol, 686.
- Angyal, S. J.** See also **Angyal, C. L., and Mathieson, N. K.**
- Ansell, E. G., and Honeyman, J.**, sugar nitrates. Part I. Removal of nitrate and toluene-*p*-sulphonyl groups from esters of substituted methyl-D-glucosides, 2778.
- Anstee, J. R., Arthur, H. R., Beckwith, A. L., Dougall, D. K., Jefferies, P. R., Michael, M., Watkins, J. C., and White, D. E.**, the chemistry of Western Australian plants. Part VI. The occurrence of betulic, oleanolic, and ursolic acids, 4065.
- Arcus, C. L., and Strauss, H. E.**, the addition of bromine to (+)-1-phenylallyl alcohol and the oxidation of the (+)-dibromo-alcohol, 2669.
- Arcus, C. L.** See also **Abbott, D. C.**
- Armitage, J. B., Cook, C. L., Entwistle, N., Jones, E. R. H., and Whiting, M. C.**, researches on acetylenic compounds. Part XXXIV. Further studies on the synthesis of diacetylenic glycols, 1998.
- Armitage, J. B., Cook, C. L., Jones, E. R. H., and Whiting, M. C.**, researches on acetylenic compounds. Part XXXVI. The synthesis of symmetrical conjugated triacetylenic compounds, 2010.

- Armitage, J. B., Jones, E. R. H., and Whiting, M. C.**, researches on acetylenic compounds. Part XXXIII. The preparation of monosubstituted derivatives of diacetylenes. Part XXXVII. The synthesis of conjugated tetra-acetylenic compounds, 1993, 2014.
- Armitage, J. B., and Whiting, M. C.**, researches on acetylenic compounds. Part XXXV. The influence of propargylic substituents on the ultra-violet absorption of diacetylenes, 2005.
- Arnstein, H. R. V.**, assay and degradation of ^{14}C -labelled choline, 4527.
- Arnstein, H. R. V., Hunter, G. D., Muir, H. M., and Neuberger, A.**, preparation of optically active lysine labelled with ^{14}C and ^{15}N , 1329.
- Arthur, H. R.** See **Anstee, J. R.**
- Ash, A. S. F., Challenger, F., Stevens, T. S., and Dunn, J. L.**, the isomerisation of sulphilimines. Part II., 2792.
- Ashdown, A., and Hey, D. H.**, internuclear cyclisation. Part IV. The preparation of *o*-amino- α -benzylcinnamic acid, 1513.
- Ashley, J. N., and Davis, M.**, some analogues of chloramphenicol, 63.
- Asker, W. J., Segnit, E. R., and Wylie, A. W.**, the potassium thorium fluorides, 4470.
- Astell-Burt, A., and Hammick, D. Ll.**, ω -halogenomethylpyridines, -quinolines, and -isoquinolines. Part III. The reduction of $\omega\omega$ -tribromoquinoline by alcohol in the presence of sulphuric acid, 1186.
- Atherton, F. R.** See **Andrews, K. J. M.**
- Atkinson, B.**, the mercury-photosensitised reactions of tetrafluoroethylene, 2684.
- Atkinson, M. R., and Polya, J. B.**, triazoles. Part I. Unsymmetrical Einhorn-Brunner and related Pellizzari reactions, 3418.
- Atkinson, R. O.**, Mannich bases of acylaminomalonates, and a synthesis of DL-aspartic acid, 3317.
- Atkinson, R. O., and Poppelsdorf, F.**, a new synthesis of α -diaminobutyric acid, 2448.
- Attenburrow, J., Cameron, A. F. B., Chapman, J. H., Evans, R. M., Hems, B. A., Jansen, A. B. A., and Walker, T.**, a synthesis of vitamin A from cyclohexanone, 1094.
- Augood, D. R., Hey, D. H., and Williams, G. H.**, homolytic aromatic substitution. Part II. Competitive experiments on the phenylation of benzene, nitrobenzene, chlorobenzene, and pyridine; partial rate factors for nitrobenzene, 2094.
- Aynsley, E. E., Peacock, R. D., and Robinson, P. L.**, the preparation and properties of selenium tetrafluoride and oxyfluoride, 1231.
- B.**
- Baddeley, G., and Gordon, M.**, relationship between hyperconjugation and intramolecular configuration. Part I. The ethyl alcoholysis of some derivatives of diphenylmethyl chloride, 2190.
- Baddeley, G., Holt, G., and Makar, S. M.**, action of aluminium chloride on derivatives of *o*-benzoylbenzoic acid, 2415. the preparation and isomerisation of β -aroylacrylic acids, 3289.
- Baddeley, G., Holt, G., Makar, S. M., and Invinson, M. G.**, interaction of naphthalene and maleic anhydride through the agency of aluminium chloride, 3605.
- Baddeley, G., Holt, G., and Pickles, W.**, interaction of aromatic ketones with aluminium chloride, 4162.
- Baddeley, G., Holt, G., and Voss, D.**, the isomerisation of *p*-xylene, 100.
- Baddeley, G., and Pendleton, A. G.**, the isomerisation of aromatic ketones through the agency of aluminium chloride, 807.
- Baddiley, J., and Mathias, A. P.**, an unambiguous synthesis of codecarboxylase, 2583.
- Baddiley, J., and Thain, E. M.**, coenzyme A. Part V. A new and convenient synthesis of pantetheine (*Lactobacillus bulgaricus* factor). Part VI. The identification of pantothenic acid-4' and -2':4' phosphates from a hydrolysate, 800, 3783.
- Badger, G. M.**, substituted anthracene derivatives. Part VI. 9-*n*-Prop-1'-enyl-10-*n*-propylantracene, 1175.
- Badger, G. M., Carruthers, W., and Cook, J. W.**, new derivatives of 1 : 2-cyclopentenophenanthrene, 4996.
- Badger, G. M., Cook, J. W., and Schwarz, F.**, fluorene derivatives related to amidone, 117.
- Badger, G. M., Howard, R. T., and Simons, A.**, the Schmidt reaction with unsymmetrical ketones, 2849.
- Badger, G. M., Pearce, R. S., and Pettit, R.**, substituted anthracene derivatives. Part V. The conjugating powers of the substitution positions in 1 : 2-benzanthracene, 1112.
- Badger, G. M., and Pettit, R.**, polynuclear heterocyclic systems. Part V. 5 : 8-Diazapentaphene. Part VI. Tetra-azabenzopentaphene and related compounds, 1874, 1877.
- Bächli, P., and Percival, E. G. V.**, the synthesis of laminaribiose (3- β -D-glucosyl D-glucose) and proof of its identity with laminaribiose isolated from laminarin, 1243.
- Bailey, A. S., Bates, D. H., and Ing, H. R.**, 5-benzilyloxy-methylfurfuryltrimethylammonium chloride, 4534.
- Bailey, A. S., Bates, D. H., Ing, H. R., and Warne, M. A.**, 2'-3' : 5'-dihydroxyphenylethylamine and 3 : 5-dihydroxyphenylalanine, 4534.
- Bailey, A. S., and Staunton, R. S.**, the preparation of some substituted homophthalic acids, 2153.
- Baker, E. H., and Tompkins, F. C.**, some complex organic salts of stannous tin, 4518.
- Baker, F. C.** See **Mann, F. G.**
- Baker, J. W., Barrett, G. F. C., and Tweed, W. T.**, mechanism of aromatic side-chain reactions, with special reference to the polar effects of substituents. Part XV. Mesomeric effects of elements of the oxygen group, 2831.
- Baker, J. W., and Easty, D. M.**, hydrolytic decomposition of esters of nitric acid. Part I. General experimental techniques; alkaline hydrolysis and neutral solvolysis of methyl, ethyl, *isopropyl*, and *tert*-butyl nitrates in aqueous alcohol. Part II. The effects of structural and solvent changes on the substitution and elimination reactions which occur in the hydrolysis of primary, secondary, and tertiary alkyl nitrates, 1193, 1208.
- Baker, W., Clark, D., Ollis, W. D., and Zealley, T. S.**, eight- and higher-membered ring compounds. Part VIII. Anhydro-derivatives of 2-carboxy-2'-hydroxybenzophenone and of 2-carboxy-2'-hydroxydiphenylmethane, 1452.
- Baker, W., Curtis, R. F., and McOmie, J. F. W.**, condensation products of phenols and ketones. Part VIII. Proof of the flavan structure of the dimerides of *o*-isopropenylphenol, and of 3-isopropenyl-*o*- and -*p*-cresol, 1774.
- Baker, W., Downing, D. F., Hewitt-Symonds, A. E., and McOmie, J. F. W.**, condensation products of phenols and ketones. Part IX. Dimerides of 4-chloro- and 4-bromo-2-isopropenylphenol, 3796.
- Baker, W., El-Nawawy, A. S., and Ollis, W. D.**, eight- and higher-membered ring compounds. Part X. Di-, tri-, and tetra-thioalicyclides, 3163.
- Baker, W., Gilbert, B., and Ollis, W. D.**, eight- and higher-membered ring compounds. Part VI. *cis*-Di- and tri-thymotides, 1443.
- Baker, W., Haksar, C. N., McOmie, J. F. W., and Ulbricht, T. L. V.**, structural and stereochemical correlation of metanethole with other dimerides of aryl propenyl compounds, 4310.
- Baker, W., Harborne, J. B., and Ollis, W. D.**, reaction of primary amines with *o*-hydroxydibenzoylmethanes, and the preparation of derivatives of flavone imine, 1294. some properties of 4-thionflavone and its methiodide, and of 4-thionchromones, 1303.
- characterisation of primary aliphatic amines by reaction with *o*-acetoacetylphenol and by paper chromatography, 3215.
- Baker, W., McOmie, J. F. W., and Ulbricht, T. L. V.**, some reactions of indan-4-ol, 1825.
- Baker, W., McOmie, J. F. W., and Warburton, W. K.**, eight- and higher-membered ring compounds. Part IX. Improved synthesis of coronene, 2991.
- Baker, W., Ollis, W. D., and Poole, V. D.**, a synthesis of flavone glycosides, 1505.
- Baker, W., Ollis, W. D., and Zealley, T. S.**, eight- and higher-membered ring compounds. Part VII. The lactone of 2'-hydroxydibenzyl-2-carboxylic acid, 1447.
- Balenović, K., Cerar, D., and Fuks, Z.**, a synthesis of (+)- β -aminobutyric acid from L-alanine, 3316.
- Balenović, K.** See also **Fleš, D.**

- Balfe, M. P., Kenyon, J., and Thain, E. M.**, dismutation reactions of di-*p*-methoxyphenylmethanol, 790.
- Ball, G. T.** See **Maxted, E. B.**
- Ballou, C. E., and Percival, E. G. V.**, wood starches. Part II. The structure of the sapwood starch of the maple (*Acer* spp.), 1054.
- Bamford, W. R., and Stevens, T. S.**, a new reaction of aliphatic diazo-compounds, 4675.
the decomposition of toluene-*p*-sulphonylhydrazones by alkali, 4735.
- Bamford, W. R., Stevens, T. S., and Wright, J. W.**, degradation of quaternary ammonium salts. Part IX. Attempts to prepare presumed intermediates having co-ordinately linked carbon, 4334.
- Banerjee, P. R., Drain, D. J., Overton, K. H., and Seymour, D. E.**, 4-aminosalicylic acid and its derivatives. Part III. Some reactions of 2-acetoxy-4-nitrobenzoyl chloride and the synthesis of some aryl esters of 4-aminosalicylic acid, 3861.
- Barclay, G. A., and Le Fèvre, R. J. W.**, comparison of the true and the apparent dipole moments of dissolved ethers, 1643.
- Bardsley, H.** See **Williams, G.**
- Barker, C. C., Hughes, I. W., and Young, G. T.**, amino-acids and peptides. Part VIII. Determination of D- and L-glutamic acid by the isotope-dilution method, 1574.
- Barker, G. R.** See **Anderson, A. S.**
- Barker, I. R. L., and Waters, W. A.**, examples of the direct iodination of aromatic compounds, 150.
- Barker, S. A., and Bourne, E. J.**, the oligosaccharides synthesised from maltose by *Escherichia coli*, 209.
favoured ring forms in acetals of the polyhydric alcohols, 905.
- Barker, S. A., Bourne, E. J., and Whiffen, D. H.**, an explanation of the preferential formation of certain rings in acetals of the polyhydric alcohols, 3865.
- Barlow, G. B., and Tatlow, J. C.**, the reactions of highly fluorinated organic compounds. Part II. Reactions of perfluorodicyclohexyl and perfluoro(isopropylcyclohexane), 4695.
- Barltrop, J. A., and MacPhee, K. E.**, the orientation of some substitution products of 7 : 8-benzoquinoline, 638.
- Barltrop, J. A., and Saxton, J. E.**, syntheses in the morphine series. Part III. Further experiments with β -tetralone, 1038.
- Barnes, C. S., Barton, D. H. R., Fawcett, J. S., and Thomas, B. R.**, triterpenoids. Part VII. Some further observations on the constitution of lanostadienol (lanosterol), 2339.
- Barrer, R. M., Mackenzie, N., and Macleod, D.**, the adsorption method of measuring surface areas, 1736.
- Barrer, R. M., and White, E. A. D.**, the hydrothermal chemistry of silicates. Part II. Synthetic crystalline sodium aluminosilicates, 1561.
- Barrett, G. F. C.** See **Baker, J. W.**
- Barry, C. P., and Honeyman, J.**, *N*-substituted glycosylamines. Part IV. *N*-Aryl-D-fructosylamines, 4147.
- Barry, P. J., and James, A. M.**, some physical investigations of the behaviour of bacterial surfaces. Part I. The electrophoretic mobility of *Aerobacter aerogenes*, 3340.
- Bartels-Keith, J. R., Johnson, A. W., and Langemann, A.**, synthetic experiments in the cycloheptatrienone series. Part II. 4-Ketocycloheptatrienecarboxylic acid, 4461.
- Barton, D. H. R., and Bruun, T.**, triterpenoids. Part VI. Some observations on the constitution of zeorin, 1683.
- Barton, D. H. R., Bruun, T., and Lindsey, A. S.**, sesquiterpenoids. Part II. Tricyclic derivatives of caryophyllene, 2210.
- Barton, D. H. R., Head, A. J., and Williams, R. J.**, stereospecificity in thermal elimination reactions. Part II. The pyrolysis of (—)-menthyl chloride, 453.
- Barton, D. H. R., and Holness, N. J.**, triterpenoids. Part V. Some relative configurations in rings c, d, and e of the β -amyrin and the lupeol group of triterpenoids, 78.
- Barton, D. H. R., Holness, N. J., Overton, K. H., and Rosenfelder, W. J.**, triterpenoids. Part VIII. Some derivatives of siarensinic acid, 3751.
- Barton, D. H. R.** See also **Barnes, C. S., and Mancera, O.**
- Bassett, H., and Strain, E. N. C.**, isomorphous replacement in hydrated salts. Part III. The systems $\text{CdCl}_2 \cdot \text{M}^{II}\text{Cl}_2 \cdot \text{H}_2\text{O}$ ($\text{M}^{II} = \text{Mg, Mn, Fe}^{II}, \text{Cu, or Ca}$), with a discussion of certain solid solutions found in these systems, 1795.
- Bassett, H.** See also **Taylor, D.**
- Bateman, L., Cunneen, J. I., and Waight, E. S.**, geraniolenes; the decomposition of 2 : 6-dimethylhept-5-en-2-ol and some derivatives thereof, 1714.
- Bateman, L., and Hughes, H.**, the thermal decomposition of cyclohexenyl hydroperoxide in hydrocarbon solvents, 4594.
- Bates, D. H.** See **Bailey, A. S.**
- Bauer, L., Baxter, J. N., Cymerman, J., and Sheldon, W. J.**, some new amine arylsulphonates, 1184.
- Baxter, J. N.** See **Bauer, L.**
- Baxter, S., and Bryant, K. C.**, silica sols. Part II. Conditions of stability. Part III. Accelerated gelation, and particle size, 3021, 3024.
- Bayles, J. W.** See **Bell, R. P.**
- Bayne, S.**, the structure of Fischer's "anhydro-lactosazone" and other anhydro-osazones, 4993.
- Bayne, S., Collie, G. A., and Fawceter, J. A.**, isopropylidene derivatives of glucosone, 2766.
- Bayne, S., and Holms, W. H.**, *N*-arylglycosylamines, 3247.
- Beale, R. N., Harris, R. J. C., and Roe, E. M. F.**, the nucleic acid of normal and tumour tissues. Part II. The preparation and composition of pentosenucleic acids from the fowl sarcomata, Rous No. 1 and Duran-Reynals "D", 1034.
- Beaton, J. M., and Tucker, S. H.**, synthesis of fluoranthenes. Part XI. Iodination of tetrahydrofluoranthenes, leading to the synthesis of 3-methyl-1 : 2 : 5 : 6-dibenzopyracylene, 3870.
- Beatty, R. D., and Mungrave, W. K. R.**, heterocyclic fluorides from diazonium fluorosilicates, 875.
- Beaven, G. H., Hall, D. M., Lesslie, M. S., and Turner, E. E.**, the relation between configuration and conjugation in diphenyl derivatives. Part I. The enantiomorphism and ultra-violet absorption spectra of some 2 : 2'-bridged compounds, 854.
- Bebbington, A., Bourne, E. J., Stacey, M., and Wilkinson, I. A.**, the Q-enzyme of *Polytomella coeca*, 240.
- Bebbington, A., Bourne, E. J., and Wilkinson, I. A.**, the conversion of amylose into amylopectin by the Q-enzyme of *Polytomella coeca*, 246.
- Beckwith, A. L., Miller, J., and Leahy, G. D.**, the S_N mechanism in aromatic compounds. Part III., 3552.
- Beckwith, A. L.** See also **Anstee, J. R.**
- Beech, S. G., Turnbull, J. H., and Wilson, W.**, alicyclic compounds. Part I. The formation of cyclopropanes in the Kishner-Wolff reduction of $\alpha\beta$ -unsaturated carbonyl compounds, 4686.
- Beecher, L.** See **Bellamy, L. J.**
- Beer, R. J. S., Broadhurst, T., and Robertson, A.**, peroxides of tetrahydrocarbazole and related compounds. Part IV. Autoxidation of substituted tetrahydrocarbazoles, 4946.
- Beer, R. J. S., Broadhurst, T., Robertson, A., and McGrath, L.**, peroxides of tetrahydrocarbazole and related compounds. Part III. A synthesis of 5 : 6-dimethoxycyclopentanespiro-2- ψ -indoxyl, 4351.
- Belcher, R., and Gibbons, D.**, a new reagent for the precipitation of sulphate, 4216.
a new reagent for the determination of antimony, 4775.
- Belcher, R., Nutten, A. J., and Stephen, W. I.**, substituted benzidines and related compounds as reagents in analytical chemistry. Part IX. Naphthidine- and 3 : 3'-dimethylnaphthidine-sulphonic acids as new redox indicators. Part X. The titration of small amounts of gallium. Part XI. The oxidation potentials of naphthidine, 3 : 3'-dimethylnaphthidine, and their sulphonic acids, 1269, 2438, 3857.
- Bell, C. F.** See **Irving, H.**
- Bell, D. J.**, the "Cross and Bevan" cellulose of *Posidonia australis*, 3649.
- Bell, D. J., and Manners, D. J.**, the action of crystalline β -amylase on some glycogens, 3641.
- Bell, D. J., Manners, D. J., and Palmer, A.**, observations on the reduction of alkaline 3 : 5-dinitrosalicylate by certain carbohydrates, 3760.
- Bell, D. J., and Palmer, A.**, structural studies on inulin from *Inula helenium* and on levans from *Dactylis glomerata* and *Lolium italicum*, 3763.
- Bell, F.**, the stereochemistry of 2 : 2'-bridged derivatives of diphenyl, 1527.
4 : 5- and 3 : 6-dinitronaphthalic anhydrides, 1952.
the bromination of aceto- β -naphthalide, 5046.
three stereochemical notes, 5047.

- Bell, J., and Reed, R. I., isotopic tracer studies of pyrolytic reactions. Part I. The formation of acetaldehyde, 1383.
- Bell, J., and Thomson, S. J., the catalytic deuteration of organic compounds. Part I. Deuteration and disproportionation. Part II. The deuteration of cholesterol and ergosterol, 572, 576.
- Bell, R. P., and Bayles, J. W., indicator measurements with amines in anisole and chlorobenzene solution, 1518.
- Bell, R. P., and Skinner, B. G., acid-base catalysis in non-aqueous solvents. Part XIII. The depolymerisation of paraldehyde in ethereal solutions of proton acids and Lewis acids, 2955.
- Bellamy, L. J., and Beecher, L., the infra-red spectra of some organo-phosphorus compounds. Part I. Part II. Esters, acids, and amines, 475, 1701.
- Bellamy, L. J., Spicer, G. S., and Strickland, J. D. H., compounds of curcumin and boric acid. Part III. Infra-red studies of roscocyanin and allied compounds, 4653.
- Benfey, O. T., Hughes, E. D., and Ingold, C. K., mechanism of substitution at a saturated carbon atom. Part XXXIII. Kinetic effect of common-ion and of non-common-ion salts on the aqueous solvolysis of diphenylmethyl halides; a demonstration of the unimolecular mechanism of solvolysis. Part XXXIV. Kinetic effects of hydroxide and alkoxide ions on the rate-controlling and product-forming stages of unimolecular solvolysis of *tert*-butyl and diphenylmethyl halides, 2488, 2494.
- Benstead, J. C., Brewerton, H. V., Fletcher, J. R., Martin-Smith, M., Slater, S. N., and Wilson, A. T., picrotoxin and tutin. Part IV. The reducing properties and functional groups, 1042.
- Benstead, J. C., Gee, R., Johns, R. B., Martin-Smith, M., and Slater, S. N., picrotoxin and tutin. Part VI. Methylation and methanolysis, 2292.
- Bentley, A., and Evans, A. G., ionisation of tri-*p*-tolylmethyl chloride in nitroalkanes, 3468.
- Bentley, H. R., Dawson, W., and Spring, F. S., synthesis of 3-hydroxyisoquinolines and 2-hydroxy-1:4-naphthoquinones from esters of 2-acyl-4:5-dimethoxyphenylacetic acids, 1763.
- Bentley, H. R. See also Martin, W. F., and Whitehead, J. K.
- Bentley, K. W., and Robinson, Sir R., the structure of phenyl-dihydrothebaine, 947.
- Bentley, K. W., Robinson, Sir R., and Wain, A. E., the reduction of thebaine and dihydrothebaine by sodium and ammonia, 958.
- Bentley, K. W., and Wain, A. E., the morphine-thebaine group of alkaloids. Part I. The isomerism of the thebunones. Part II. The reduction of certain quaternary salts, 967, 972.
- Berg, S. S., and Petrow, V., new syntheses of heterocyclic compounds. Part XVI. Some further observations on ring closures involving loss of nitrous acid. Part XVIII. 2:10-Diazaphenanthrenes by application of the Stieglitz rearrangement, 784, 3713.
- Bergel, F. See Andrews, K. J. M.
- Bergmann, E. D., Littauer, U. Z., and Pinchas, S., the infra-red absorption of pyrophosphates, 847.
- Bergmann, F., Israelashvili, S., and Gottlieb, D., the uncatalyzed reaction of olefins with acyl chlorides. Part I. Reaction of 1:1-diphenylethylene, 2522.
- Bergmann, F., and Kalmus, A., the synthesis of β -unsaturated α -keto-acids from 1:1-diarylethylenes, 4521.
- Berrie, A. H., Newbold, G. T., and Spring, F. S., some reactions of substituted 2-bromopyridines, 2042.
- Berwick, I. D. G. See Evans, U. R.
- Bhargava, P. M., and Zaheer, S. H., condensation of *o*-acetoxybenzaldehyde with malonic acid and ethyl malonate, 311.
- Billett, F. See Morrison, T. J.
- Birch, A. J., Quartey, J. A. K., and Smith, H., hydroaromatic steroid hormones. Part III. Some angular-methylated intermediates, 1768.
- Birch, A. J., and Todd, A. R., anthelmintics: kousoo. Part II. The structures of protokosin, α -kosin, and β -kosin, 3102.
- Birch, S. F., Gripp, V. E., McAllan, D. T., and Nathan, W. S., the preparation and properties of some hydrocarbons with recurrent groups, 1363.
- Birch, S. F., and McAllan, D. T., non-catalytic reduction of thiophens. Part III. The reaction of the isomeric dihydrothiophens with thiols, 233.
- Birchenough, M. J., and Burton, H., pyridinium sulphates derived from cholesterol and lanostadienol, 2443.
- Bircumshaw, L. L. See Riddiford, A. C.
- Bird, R. F., and Turner, E. E., the reduction of 3-chlorophthalic acid and of its three methyl esters, 5050.
- Birtwell, S., attempts to prepare a possible metabolite of "Paludrine" (proguanil) and related 1:3:5-triazines, 1279.
- Bishop, R. R., Cavell, E. A. S., and Chapman, N. B., nucleophilic displacement reactions in aromatic systems. Part I. Kinetics of the reactions of chloronitropyridines with aromatic amines and with pyridine, 437.
- Blackall, E. L., Hughes, E. D., and Ingold, C. K., kinetics and mechanism of aromatic nitration. Part IX. Nitrosating agents in nitrations catalysed by nitrous acid, 28.
- Bladon, P., Clayton, R. B., Greenhalgh, C. W., Henbest, H. B., Jones, E. R. H., Lovell, B. J., Silverstone, G., Wood, G. W., and Woods, G. F., studies in the steroid group. Part LVI. Reduction of dehydroergosterol epidioxide, 4883.
- Bladon, P., Henbest, H. B., Jones, E. R. H., Wood, G. W., and Woods, G. F., studies in the steroid group. Part LVII. Side-chain degradation of 3 β -acetoxy-5 α :8 α -epidioxyergosta-9:22-diene, 4890.
- Bladon, P., Henbest, H. B., and Wood, G. W., studies in the steroid group. Part LV. Ultra-violet absorption spectra of ethylenic centres, 2737.
- Blouk, G. J., and Pausacker, K. H., the formation of osazones. Part IV. A quantitative study of the reaction of benzoin phenylhydrazone with phenylhydrazine, 661.
- Blood, C. T., Cartwright, N. J., and Linstead, R. P., the preparation of 4:4'-bistetrahydropranyl and of ethane-1:1:2:2-tetra-acetic acid, 2268.
- Blood, C. T., and Linstead, R. P., fused carbon rings. Part XX. Experiments directed towards the synthesis of simple pentalenes. Part XXI. Dibenzopentalene, 2255, 2263.
- Bloom, H., and Briggs, L. H., *Solanum* alkaloids. Part IX. The relation between constitution and basicity in solasodine, its derivatives, and solanidine, 3591.
- Blumann, A., and Wood, W. R., carveol and related substances, 4420.
- Boarland, M. P. V., and McOmie, J. F. W., pyrimidines. Part II. The ultra-violet absorption spectra of some mono-substituted pyrimidines. Part III. The ultra-violet absorption spectra of some polysubstituted pyrimidines. Part V. The synthesis of 5-amino-4-hydroxypyrimidine, a new isomer of cytosine, 3716, 3722, 4942.
- Boarland, M. P. V., McOmie, J. F. W., and Timms, R. N., pyrimidines. Part IV. Experiments on the synthesis of pyrimidine and 4:6-dimethylpyrimidine, 4691.
- Bok, L. D. C., and Petters, L. B., hydrogen-deuterium exchange in aqueous solutions of glycollic acid and of sodium formate, 1524.
- Bonner, T. G., Bowyer, F., and Williams, G., nitration in sulphuric acid. Part VIII. Kinetics of nitration of the trimethylphenylammonium ion, 3274.
- Boon, W. R., 4:6-dichloro-2-dimethylaminopyrimidine, 1532.
- Booth, G. H., and Norrish, R. G. W., photochemical studies of some organic nitrogen derivatives, 188.
- Boughton, B. W., Bowman, R. E., and Ames, D. E., synthetic long-chain aliphatic compounds. Part VII. Some mono-olefinic acids, 671.
- Bourne, E. J., Corbett, W. M., and Stacey, M., 2:4:3:5-diethylidene aldehydo-L-xylose and its derivatives, 2810.
- Bourne, E. J., Henry, S. H., Tatlow, C. E. M., and Tatlow, J. C., studies of trifluoroacetic acid. Part VI. Trifluoroacetyl derivatives of amines, 4014.
- Bourne, E. J., McSweeney, G. P., Stacey, M., and Wiggins, L. F., the isopropylidene derivatives of hexahydric alcohols. Part II. *iso*Propylidene derivatives of sorbitol, 1408.
- Bourne, E. J., McSweeney, G. P., and Wiggins, L. F., the *iso*propylidene derivatives of hexahydric alcohols. Part III. *iso*Propylidene derivatives of L-iditol, 2542.
- the 2:3:4:5-di*iso*propylidene derivatives of aldehydo-L-xylose and L-xylitol, 3113.
- Bourne, E. J., Stacey, M., Tatlow, J. C., and Tedder, J. M., studies of trifluoroacetic acid. Part V. Trifluoroacetic anhydride as a condensing agent in reactions of nitrous and nitric acids, 1695.
- Bourne, E. J. See also Barker, S. A., and Bebbington, A.

- Bowden, K.**, and **Braude, E. A.**, studies in light absorption. Part X. Further observations on ultra-violet auxochromes; a survey of the effects of some of the less common elements, 1068.
- Bowden, K.**, and **Green, P. N.**, syntheses in the piperidine series. Part I. A facile synthesis of piperidin-4-ol, and the preparation of related compounds, 1164.
- Bowman, R. E.**, and **Fordham, W. D.**, experiments on the synthesis of carbonyl compounds. Part VI. A new general synthesis of ketones and β -keto-esters, 3945.
- Bowman, R. E.**, and **Mason, R. G.**, synthetic long-chain aliphatic compounds. Part X. 21-Methoxyheneicosanoic acid and some related compounds, 4151.
- Bowman, R. E.** See also **Ames, D. E.**, and **Boughton, B. W.**
- Bowyer, F.** See **Bonner, T. G.**
- Brackman, D. S.**, and **Plesch, P. H.**, some physical properties of *cis*-stilbene, 2188.
- Bradbury, H.**, and **Smith, F. J.**, attempted preparation of 2 : 4-dinitrobenzenesulphonic acid, 2943.
- Bradfield, A. E.**, and **Flood, A. E.**, the direct measurement of the absorption spectra of some plant phenols on paper strip chromatograms, 4740.
- Bradley, D. C.**, **Abd-el Halim, F. M.**, **Mehrotra, R. C.**, and **Wardlaw, W.**, reactions of acetyl chloride with zirconium alkoxides, 4609.
- the action of alcohols on zirconium tetrachloride and zirconium chloride alkoxides, 4960.
- Bradley, D. C.**, **Abd-el Halim, F. M.**, **Sadek, E. A.**, and **Wardlaw, W.**, the preparation of zirconium alkoxides, 2032.
- Bradley, D. C.**, **Hancock, D. C.**, and **Wardlaw, W.**, titanium chloride alkoxides, 2773.
- Bradley, D. C.**, **Mehrotra, R. C.**, and **Wardlaw, W.**, structural chemistry of the alkoxides. Part I. Amyloxides of silicon, titanium, and zirconium. Part II. Tertiary alkoxides of silicon, titanium, zirconium, and hafnium. Part III. Secondary alkoxides of silicon, titanium, and zirconium, 2027, 4204, 5020.
- Bradley, R. S.**, the rate of nucleation of ammonium iodide on mica, 4530.
- Bradley, R. S.**, **Cotson, S.**, and **Cox, E. G.**, the determination of vapour pressures of the order of 1 mm. of mercury by a modification of Smith and Menzies's method; the vapour pressure of dimethylnitramine, 740.
- Bradley, W.**, and **Geddes, K. W.**, 1 : 9-pyrazoloanthrone. Part I. Replacement of halogens in derivatives of 1 : 9-pyrazoloanthrone. Part II. Nuclear substitution by bases and self-condensation in 1 : 9-pyrazoloanthrone and its *N*-methyl derivatives, 1630, 1636.
- Bradley, W.**, and **Nursten, H. E.**, formation of flavantrones from derivatives of 2-aminoanthraquinone, 2944.
- chemistry of indanthrone. Part VII. The action of piperidine on 3 : 3'-dihalogenoindantrones and the *N*-methyl derivatives of 3 : 3'-dibromoindanthrone, 3027.
- Bradley, W.**, and **Sutcliffe, F. K.**, the occurrence of direct hydroxylation and self-condensation in the action of potassium hydroxide on three isomeric benzo-derivatives of mesobenzanthrone, 1247.
- a synthesis of cyananthrene, 2118.
- Brain, F. H.**, **Gibson, C. S.**, **Jarvis, J. A. J.**, **Phillips, R. F.**, **Powell, H. M.**, and **Tyabji, A. M.**, the nature of benzyl sulphide-dibromo- and -dichloro-gold, 3686.
- Brand, J. C. D.**, and **Horning, W. C.**, aromatic sulphonation. Part III. Correlation of the velocity of sulphonation with the *J*-function of sulphuric acid, 3922.
- Brand, J. C. D.**, **Horning, W. C.**, and **Thornley, M. B.**, the spectrophotometric determination of the ionisation constants of aromatic nitro-compounds, 1374.
- Brand, J. C. D.**, and **Paton, R. P.**, rate-determining factors in certain *ortho*-nitrations, 281.
- Brand, J. C. D.**, and **Rutherford, A.**, the vapour pressure of the system sulphuric acid-disulphuric acid, 3916.
- aromatic sulphonation. Part IV. Isomeric ratios in the sulphonation of trimethyl-phenyl- and -*p*-tolyl-ammonium methyl sulphates, 3927.
- Brandt, C. W.**, and **Thomas, B. R.**, 9-ketoferruginol and its identity with sugiol, 2442.
- Brandt, G. R. A.**, **Emeléus, H. J.**, and **Haszeldine, R. N.**, organometallic and organometalloidal fluorine compounds. Part III. Trifluoromethyl derivatives of sulphur. Part IV. Ultra-violet and infra-red spectra of bistrifluoromethyl sulphide, bistrifluoromethyl disulphide, and related compounds. Part V. Trifluoromethyl compounds of arsenic, 2198, 2549, 2552.
- Braude, E. A.**, **Braun, T.**, **Weedon, B. C. L.**, and **Woods, R. J.**, studies in the polyene series. Part XLII. Some reactions of cyclohexenyl-lithium with polyene aldehydes, 1414.
- alkenylation employing lithium alkenyls. Part VI. The synthesis and spectral properties of some 6 : 6-dimethyl-cyclohexenyl derivatives, 1419.
- Braude, E. A.**, and **Coles, J. A.**, alkenylation employing lithium alkenyls. Part VII. The reaction of *iso*-butenyl-lithium with ethylenic ketones, 1425.
- syntheses of polycyclic systems. Part III. Some hydroindanones and hydrofluorenones; the mechanism of the Nazarov cyclisation reaction, 1430.
- Braude, E. A.**, and **Fawcett, J. S.**, 1-*o*-methoxyphenyl-anthraquinone, 1528.
- the kinetics of anionotropic rearrangement. Part X. A comparison of the effects of the phenyl, furyl, and thienyl groups on reactivity, 4158.
- Braude, E. A.**, **Fawcett, J. S.**, and **Newman, D. D. E.**, studies in molecular rearrangement. Part IX. Oxotropic rearrangement in the five-membered heterocyclic series, 4155.
- Braude, E. A.**, and **Waight, E. S.**, some observations on the course of the reaction between ethylenic compounds and *N*-bromosuccinimide, 1116.
- Braude, E. A.** See also **Bowden, K.**
- Braunholtz, J. T.**, and **Mann, F. G.**, the preparation of bis-2-cyanoethyl derivatives of aromatic primary amines, and their conversion into 1 : 6-diketolulidines, 3046.
- Brewerton, H. V.** See **Benstead, J. C.**
- Briggs, L. H.**, **Brooker, E. G.**, **Harvey, W. E.**, and **Odell, A. L.**, *Solanum* alkaloids. Part VIII. Solamargine, a new alkaloid from *Solanum marginatum*, 3587.
- Briggs, L. H.**, **Nicholls, G. A.**, and **Paterson, R. M. L.**, chemistry of the *Coprosmia* genus. Part VI. Minor anthraquinone colouring matters from *Coprosmia australis*, 1718.
- Briggs, L. H.**, and **O'Shea, T.**, *Solanum* alkaloids. Part VII. The stereochemical relationship of solasodine to cholesterol, 1654.
- Briggs, L. H.** See also **Bloom, H.**
- Britton, H. G.** See **Britton, H. T. S.**
- Britton, H. T. S.**, and **Britton, H. G.**, an electrometric study of the reaction between (i) bromine and iodide ions in the absence and in the presence of acid; (ii) bromate and bromide ions in acid solution, 3879.
- a potentiometric study of the reduction by potassium iodide of potassium bromate in sulphuric and hydrochloric acid solutions, 3887.
- a potentiometric study of the reaction between nitrous acid and hydriodic acid, 3892.
- Britton, H. T. S.**, **Cockaday, R. E.**, and **Foreman, J. K.**, the potentiometric titration of iodic acid with potassium iodide in sulphuric and hydrochloric acid solutions, 3877.
- Broadbent, P.**, **Robertson, A.**, and **Whalley, W. B.**, the pigments of "dragon's blood" resin. Part IV. The oxidation of some anhydro-7-hydroxybenzopyranols, 4957.
- Broadhurst, T.** See **Beer, R. J. S.**
- Brook, A. G.**, the preparation of substituted quinones by a new oxidizing agent, 5040.
- Brooker, E. G.** See **Briggs, L. H.**
- Brown, B. R.**, new cholestene diols; the simultaneous action of aluminium hydride and aluminium chloride on the enol acetate of cholest-4-en-3-one, 2756.
- Brown, B. R.**, **Ekstrand, T.**, **Johnson, A. W.**, **MacDonald, S. F.**, and **Todd, A. R.**, colouring matters of the aphididae. Part VI. The glucosidic nature of protoaphin, 4925.
- Brown, B. R.**, **Johnson, A. W.**, **MacDonald, S. F.**, **Quayle, J. R.**, and **Todd, A. R.**, colouring matters of the aphididae. Part VII. Addition reactions of erythroaphin-*fb*, 4928.
- Brown, D. J.** See **Albert, A.**
- Brown, D. M.**, **Dekker, C. A.**, and **Todd, A. R.**, nucleotides. Part XIII. The action of ribonuclease on the 2' : 3'-phosphates of uridine and cytidine, 2715.
- Brown, D. M.**, **Magrath, D. I.**, and **Todd, A. R.**, nucleotides. Part XII. The preparation of cyclic 2' : 3'-phosphates of adenosine, cytidine, and uridine, 2708.

- Brown, D. M., and Todd, A. R.**, nucleotides. Part IX. The synthesis of adenylic acids *a* and *b* from 5'-trityl adenosine. Part X. Some observations on the structure and chemical behaviour of the nucleic acids, 44, 52.
- Brown, F., and Musgrave, W. K. R.**, trifluoroacetaldehyde, 5049.
- Brown, J. B., Henbest, H. B., and Jones, E. R. H.**, 3-indolyl-acetaldehyde and 3-indolylacetone, 3172.
- Brown, J. J., and Newbold, G. T.**, 1:2-dihydro-2-thianaphthalene derivatives. Part III. Further examples of the conversion of 1:2-dihydro-1-keto-2-thianaphthalenes into indanones, 4397.
- phthalaldehydes and related compounds. Part I. The preparation of 3-formylopicinic acid, 4878.
- Brown, M. J., and Foster, A. G.**, the sorption of vapours by ferric oxide gel. Part III. Aliphatic amines, 1139.
- Brown, R. D.**, studies of the localization theory of organic reactions. Part II. The effects of substituents, 2229.
- Bruce, D. B., and Thomson, R. H.**, aromatic keto-enols. Part II. Some new 2:3-dihydro-1:4-naphthaquinones and -anthraquinones, 2759.
- Bruckner, V.** See Kovács, J.
- Bruun, T.** See Barton, D. H. R., and Braude, E. A.
- Bryan, J. D.**, a linear acetal of ethylene glycol, 1189.
- Bryant, K. C.**, silica sols. Part I. The titration of silica sols, 3017.
- Bryant, K. C.** See also Baxter, S.
- Buchanan, G. L., and McArdle, J.**, the conversion of arylacetic acids into ketones, 2944.
- Buckingham, A. D., and Le Fèvre, R. J. W.**, the direct calculation of true dipole moments from measurements on solutions or pure liquids, 1932.
- Buckley, G. D., and Ray, N. H.**, the decomposition of aliphatic diazo-compounds by trimethyl borate: the preparation of branched-chain paraffins of high molecular weight, 3701.
- Budziarek, R., Johnson, F., and Spring, F. S.**, steroids. Part III. 11-Oxygenated steroids from 22:23-dibromosterosta-7:9(11)-dien-3 β -yl acetate (ergosteryl-D acetate 22:23-dibromide), 3410.
- Budziarek, R., Newbold, G. T., Stevenson, R., and Spring, F. S.**, steroids. Part I. 11-Oxygenated steroids from ergosteryl-D acetate, 2892.
- Budziarek, R., Stevenson, R., and Spring, F. S.**, steroids. Part V. Oxidation of ergosteryl-D acetate 22:23-dibromide, 4874.
- Bullerwell, R. A. F., and Lawson, A.**, 2-mercaptoglyoxalines. Part VI. The preparation of mono- and di-carbon-substituted 2-mercaptoglyoxalines by means of the Dakin and West reaction, 1350.
- Bunton, C. A., and Halevi, E. A.**, the preparation of arylalkane-sulphonic acids, 4541.
- oxygen exchange between nitric acid and water. Part II. A correlation of oxygen exchange with aromatic nitration, 4917.
- Bunton, C. A., Halevi, E. A., and Llewellyn, D. R.**, oxygen exchange between nitric acid and water. Part I., 4913.
- Buraway, A., and Chamberlain, J. T.**, effect of methylation on the light absorption of phenols. Part I. Part II. Monophenylazophenols, 2310, 3734.
- Buraway, A., Salem, A. G., and Thompson, A. R.**, the nature of the internal hydrogen bond. Part I. Tautomerism of 1-arylozo-2-naphthols, 4793.
- Buraway, A., and Turner, C.**, *o*-mercapto-azo-compounds. Part II. 1-(1-Mercapto-2-naphthylazo)-2-naphthol, 1286.
- Burrows, A. A., and Hunter, L.**, the associating effect of the hydrogen atom. Part XV. The S-H-N bond; esters of thion- and dithio-carbamic acids, 4118.
- Burstall, F. H., and Nyholm, R. S.**, studies in co-ordination chemistry. Part XIII. Magnetic moments and bond types of transition-metal complexes, 3570.
- Burstall, F. H., Swain, P., Williams, A. F., and Wood, G. A.**, inorganic chromatography on cellulose. Part XI. A study on the separation of tantalum from niobium and its application to quantitative analysis, 1497.
- Burton, H., and David, S. B.**, addition reactions of quinones. Part I. The reaction of cysteine and thiourea and its derivatives with some quinones, 2193.
- Burton, H., and Hopkins, H. B.**, the oxidation of 4-methylcatechol in aqueous solution by ferric ion, 2445.
- Burton, H., and Hopkins, H. B.**, acylation and allied reactions catalysed by strong acids. Part VII. Evidence for the existence of sulphonyl cations (R-SO₃⁺), 4457.
- Burton, H., and Frail, P. F. G.**, acylation reactions catalysed by strong acids. Part VI. A comparison of zinc chloride and perchloric acid as catalysts for the Thiele acetylation of quinones, 755.
- addition reactions of quinones. Part II. The so-called uncatalysed addition of acetyl chloride to benzoquinone and tolu-2:5-quinone, 2546.
- Burton, H.** See also Birchenough, M. J.
- Butler, G.** See Maxwell, K. H.
- Butler, J. A. V., Gilbert, L., and James, D. W. F.**, the action of ionizing radiations and of radiomimetic substances on deoxyribonucleic acid. Part VI. Physicochemical measurements of the action of bischloroethylmethylamine, 3268.
- Butler, J. A. V.** See also Conway, B. E., and Press, E. M.
- Buu-Hoï, Ng. Ph.**, identification of "isodinaphthylene oxide" as dinaphtho(2':3':2:3)(1'':2'':4:5)furan; some functional derivatives of the latter, 489.
- the scope of the Knoevenagel synthesis of aromatic secondary amines, 4346.
- Buu-Hoï, Ng. Ph., and Demerseman, P.**, the condensation of 2:3-dichloro-1:4-naphthaquinone with α -naphthols, 4699.
- Buu-Hoï, Ng. Ph., and Hoán, Ng.**, some polycyclic derivatives of selenophen, 3745.
- Buu-Hoï, Ng. Ph., Hoán, Ng., and Lavit, D.**, thiophen derivatives of potential biological interest. Part III. The chemistry of 5-substituted thiophen-2-aldehydes, 4590.
- Buu-Hoï, Ng. Ph., Hoán, Ng., and Xuong, Ng. D.**, the chemistry of carcinogenic nitrogen compounds. Part X. The Pfitzinger reaction in the synthesis of 1:2-benzacridines, 279.
- Buu-Hoï, Ng. Ph., and Jacquignon, P.**, carcinogenic nitrogen compounds. Part XII. Fluorine-containing 1:2- and 3:4-benzacridines, 4173.
- Buu-Hoï, Ng. Ph., Royer, R., Eckert, B., and Jacquignon, P.**, carcinogenic nitrogen compounds. Part XIII. Benzacridines, benzocarbazoles, and related compounds bearing ethyl and propyl groups, 4867.
- Buu-Hoï, N. P., and Xuong, Ng. D.**, carcinogenic nitrogen compounds. Part XI. Indeno(3':2'-2:3)indoles, benzindeno(3':2'-2:3)indoles, and related compounds, 2225.
- Buu-Hoï, Ng. Ph.** See also Xuong, Ng. D.
- Buxton, M. W., Ingram, D. W., Smith, F., Stacey, M., and Tatlow, J. C.**, organic fluorides. Part XIII. The high-temperature dimerisation of chlorotrifluoroethylene, 3830.

C.

- Caldwell, A. G.**, potential trypanocides of the *N*-heterocyclic series. Part VI. Compounds derived from phenanthridine-9-aldehydes, 2035.
- Caldwell, A. G., and Walls, L. P.**, the nitration of phenanthridine, 2156.
- Callow, R. K., and Taylor, D. A. H.**, the cardio-active glycosides of *Strophanthus sarmentosus* P.D.C. "Sarmentoside B" and its relation to an original sarmentosioside, 2299.
- Cameron, A. F. B.** See Attenburrow, J.
- Cameron, J. M. L., Cook, J. W., and Schoental, R.**, 8-methyl-3:4-benzopyrene, 257.
- Campbell, A. D., and Morton, J. E.**, the determination of *C*-methyl groups in some branched-chain fatty acids, 1693.
- Campbell, A. D., and Shaw, D. R. D.**, a direct method for the preparation of some α -chloro-carboxylic esters, and notes on other α -halogeno-carboxylic esters, 5042.
- Campbell, A. D., and Slater, S. N.**, cyclic conjugated polyenes; the attempted synthesis of dehydroindeno(5':6'-1:2)cycloheptatriene, 4353.
- Campbell, I. G. M.**, the configuration of heterocyclic antimony compounds. Part II. Symmetric and enantiomorphic 9-stibiafluorenes, 4448.
- Campbell, N., Leadill, W. K., and Wilshire, J. F. K.**, 4:11:12-tribromofluoranthene, 4615.
- Campbell, N., and Reid, D. H.**, syntheses of benzo[*mno*]fluoranthene and dibenzo[*k, mno*]fluoranthene, 3281.
- Campbell, N., and Stafford, W. H.**, the ring-closure of derivatives of 2-aminofluorene, 299.

- Campbell, N.**, and **Woodham, A. A.**, reactivity of the carbonyl group in mesobenzanthrone, 843.
- Campbell, W. G.**, and **McDonald, I. R. C.**, the chemistry of the wood cell wall. Part I. The delignification of beech and spruce woods by sodium chlorite in buffered aqueous solution. Part II. The isolation of beech and spruce acid-soluble and modified lignins, 2644, 3180.
- Carroll, T. C. N.**, **Danby, C. J.**, **Dean, A. C. R.**, and **Hinshelwood, Sir C.**, losses of (radioactive) sulphur and phosphorus from resting bacterial cells, 893.
- Carruthers, W.** See **Badger, G. M.**
- Carswell, D. J.**, **Cymerman, J.**, and **Lyons, L. E.**, the basic strengths of some *N*-4-diphenylamidines, 430.
- Cartwright, N. J.**, **Jones, J. I.**, and **Marmion, D.**, the synthesis of γ -resorcylic acid (2 : 6-dihydroxybenzoic acid), 3499.
- Cartwright, N. J.** See also **Blood, C. T.**
- Cass, R.**, and **Coates, G. E.**, dimethylaminochlorosilanes, 2347.
- Cavalla, J. F.** See **McGhie, J. F.**
- Cavell, E. A. S.** See **Bishop, R. R.**
- Cavill, G. W. K.**, and **Tetaz, J. R.**, the hydroxynaphthoate series. Part I. A synthesis of 4-hydroxynaphthoic acid and its simple esters, 3634.
- Cerar, D.** See **Balenović, K.**
- Chakravarti, D.**, and **Chakravarti, R. N.**, andrographolide. Part I., 1697.
- Chakravarti, R. N.** See **Chakravarti, D.**
- Challenger, F.** See **Ash, A. S. F.**
- Chamberlain, J. T.** See **Burawoy, A.**
- Chanda, S. K.**, **Hirst, E. L.**, **Percival, E. G. V.**, and **Ross, A. G.**, the structure of alginic acid. Part II., 1833.
- Chanda, S. K.**, **Percival, E. E.**, and **Percival, E. G. V.**, crystalline 2 : 3-dimethyl α -D-xylose, 260.
- Chapman, F.** See **Jones, B.**
- Chapman, J. H.** See **Attenburrow, J.**
- Chapman, N. B.**, **James, J. W.**, and **Williams, J. F. A.**, synthesis of *NN*-dialkyl-*N'*-benzyl(or ethyl)-*N'*-1(or 2)-naphthylethylenediamines as potential histamine antagonists, 4024.
- Chapman, N. B.**, and **Levy, J. L.**, nucleophilic displacement of fluorine from organic compounds. Part II. Kinetics of the reactions of alkyl fluorides with ethanolic sodium ethoxide. Part III. Acid-catalysed solvolysis of alkyl fluorides in aqueous ethanol, 1673, 1677.
- Chapman, N. B.**, and **Williams, J. F. A.**, bromination of 2-methylnaphthalene, 5044.
- Chapman, N. B.** See also **Bishop, R. R.**
- Chard, S. J.** See **Cullinane, N. M.**
- Charnley, T.**, **Skinner, H. A.**, and **Smith, N. B.**, thermochemistry of organo-boron compounds. Part I. Esters of boric acid, 2288.
- Chase, B. H.**, and **Hey, D. H.**, ring-chain tautomerism in the acid halides of the half-esters of dibasic acids, 553.
- Chatt, J.**, and **Wilkins, R. G.**, the nature of the co-ordinate link. Part V. The equilibrium between *cis*- and *trans*-bis(triethylphosphine)dichloroplatinum. Part VI. A comparison of equilibria between *cis*- and *trans*-(MEt_3)₂PtCl₂, where M = P, As, and Sb, 273, 4300.
- olefin co-ordination compounds. Part II. Compounds with two double bonds attached to one platinum atom, 2622.
- Cheeseman, G.** See **Albert, A.**
- Chirnside, R. C.** See **Culey, H. J.**
- Clar, E.**, and **Stewart, D. G.**, aromatic hydrocarbons. Part LXIV. 2 : 3-6 : 7-Dibenzofluoranthene, 4783.
- Clark, D.**, the structure of sulphur nitride, 1615.
- Clark, D.** See also **Baker, W.**
- Clark, V. M.** See **Anand, N.**
- Clayton, R. B.** See **Bladon, P.**
- Clemo, G. R.**, and **Duxbury, F. K.**, formation of tyrosine melanin. Part IV., 3844.
- Clemo, G. R.**, **Duxbury, F. K.**, and **Swan, G. A.**, formation of tyrosine melanin. Part III. The use of carboxyl-labelled tyrosine and dihydroxyphenylalanine in melanin formation, 3464.
- Clemo, G. R.**, and **Felton, D. G. I.**, the influence of structure on the ultra-violet absorption spectra of heterocyclic systems. Part II. Nitrogen analogues of the monobenzofluorenes, 1658.
- Clemo, G. R.**, and **Harris, J. O.**, the chemistry of humulene. Part II., 665.
- Clemo, G. R.**, and **Nath, B.**, the delphinine alkaloids. Part I., 1750.
- a synthesis of dibenzo[*c, k*]sparteine, 2196.
- Clemo, G. R.**, and **McQuillin, F. J.**, synthesis in the santonin series. Part I. Some oxidation products of α -(2-keto-4-methylcyclohexyl)propionic acid. Part II., 3835, 3839.
- Clemo, G. R.**, and **Stevens, R.**, the seed fat of *Myrrhis odorata*; contributions to the chemistry of petroselinic acid, 4684.
- Culey, H. J.**, and **Chirnside, R. C.**, the separation of germanium tetrachloride from arsenic trichloride by fractional distillation, 2275.
- Coates, G. E.**, **Glockling, F.**, and **Huck, N. D.**, dimethylberyllium. Part I. Vapour pressure and vapour-phase association. Part III. Reactions with some compounds containing reactive hydrogen, 4496, 4512.
- Coates, G. E.**, and **Huck, N. D.**, dimethylberyllium. Part II. Co-ordination compounds, 4501.
- Coates, G. E.** See also **Cass, R.**
- Cockaday, R. E.** See **Britton, H. T. S.**
- Cocker, E.**, and **Cocker, W.**, an anthocyanidin of Louro Inamui, 5035.
- Cocker, W.**, **Cross, B. E.**, and **McCormick, J.**, the elimination of non-angular alkyl groups in aromatisation reactions. Part I., 72.
- action of acrylonitrile on ethyl aminomalonate and ethyl aminoacetate, 1182.
- Cocker, W.** See also **Cocker, E.**
- Cohen, A.**, **Haworth, J. W.**, and **Hughes, E. G.**, synthetical experiments in the B group of vitamins. Part IV. A synthesis of pyridoxine, 4374.
- Cohen, A.**, and **Hughes, E. G.**, synthetical experiments in the B group of vitamins. Part V. Novel derivatives of pyridoxine, 4384.
- Cohen, A.**, and **Silk, J. A.**, synthetical experiments in the B group of vitamins. Part VI. Synthesis of the pyridoxine analogue, 2-benzyl-3-hydroxy-4 : 5-bishydroxymethylpyridine, 4386.
- Cohn, H.**, infra-red spectrum of crystalline potassium perchlorate; reassignment of the lower fundamental frequencies of the perchlorate ion, 4282.
- Cohn, H.**, **Ingold, C. K.**, and **Poole, H. G.**, infra-red spectrum of nitric and of deuteronic acid vapour; completion of identification of the fundamental frequencies; entropy of nitric acid; barrier-resisting rotation of the hydroxyl group, 4272.
- Cole, A. R. H.**, infra-red spectra of natural products. Part I. The stereochemistry of lumistanol, 4969.
- Coles, J. A.** See **Braude, E. A.**
- Collie, G. A.** See **Bayne, S.**
- Colman-Porter, C. A.**, and **Monk, C. B.**, the electrolytic dissociation of strontium iodate and of strontium hydroxide, 1312.
- dissociation constants of the alkaline-earth salts of some monocarboxylic acids, 4363.
- Conduit, C. P.** See **Addison, C. C.**
- Conway, B. E.**, and **Butler, J. A. V.**, the action of ionizing radiations and of radiomimetic substances on deoxyribonucleic acid. Part V. Some experiments on the action of X-rays and free radicals, 834.
- the action of denaturing agents on deoxyribonucleic acid, 3075.
- Cook, A. H.**, and **Hunter, G. D.**, studies in the azole series. Part XXXIII. The interaction of α -amino-nitriles and alkyl or aryl isocyanates, 3789.
- Cook, A. H.**, and **Shaw, G.**, syntheses in the penicillin field. Part X. 4-Formylisooxazolones and derived thiazolidines, 4466.
- Cook, C. L.**, **Jones, E. R. H.**, and **Whiting, M. C.**, researches on acetylenic compounds. Part XXXIX. General routes to aliphatic polyacetylenic hydrocarbons and glycols, 2883.
- Cook, C. L.** See also **Armitage, J. B.**
- Cook, J. W.**, **Gibb, A. R. M.**, **Raphael, R. A.**, and **Somerville, A. R.**, tropolones. Part IV. The preparation of $\alpha\beta$ -benzotropolone, 603.
- Cook, J. W.**, and **Hunter, L.**, dehydration of 2-9'-fluorenyl-cyclohexanol, 3168.
- Cook, J. W.**, **Jack, J.**, and **Loudon, J. D.**, colchicine and related compounds. Part XII. Some molecular rearrangements 607.

- Cook, J. W., Loudon, J. D., and McCloskey, P.**, the chemistry of the *Mitragyna* genus. Part III. Synthesis of a degradation product of mitragynine, 3904.
- Cook, J. W., Raphael, R. A., and Scott, A. I.**, tropolones. Part VI. Further reactions of tropolone, 4416.
- Cook, J. W., and Schoental, R.**, 5-hydroxy-1:2-benzanthracene and 1'-hydroxy-1:2:5:6-dibenzanthracene, 9.
- Cook, J. W.** See also **Abadir, B. J., Badger, G. M., and Cameron, J. M. L.**
- Cookson, E.** See **Cornforth, J. W.**
- Cookson, R. C., and Green, G. F. H.**, the synthesis of thyroxine and related substances. Part IX. Analogues of thyroxine with modified side chains, 827.
- Cooper, F. C., and Partridge, M. W.**, synthesis of di-(*p*-N-phenylamidinophenoxy)methane, 5036.
- Cooper, W.**, the effect of structure of diacyl peroxides on their radical-induced decomposition in vinyl monomers, 2408.
- Cooper, W., and Davison, W. H. T.**, the structure of a peroxide from cyclohexanone and hydrogen peroxide, 1180.
- Corbett, W. M.** See **Bourne, E. J.**
- Corby, N. S., Kenner, G. W., and Todd, A. R.**, studies on phosphorylation. Part X. The preparation of tetraesters of pyrophosphoric acid from diesters of phosphoric acid by means of exchange reactions, 1234.
- nucleotides. Part XVI. Ribonucleoside-5' phosphites. A new method for the preparation of mixed secondary phosphites, 3669.
- Cornforth, J. W., and Cookson, E.**, some reactions of oxazole-4-carboxylic acids, 1085.
- Cornforth, J. W., and Henry, A. J.**, the presence of *cis*- and *trans*-3-hydroxystachydrine in the fruit of *Courbonia virgata*, 597.
- the isolation of L-stachydrine from the fruit of *Capparis tomentosa*, 601.
- Cosgrove, D. J., Daniels, D. G. H., Whitehead, J. K., and Goulden, J. D. S.**, fermentation products of wheat germ. (a) Identification of methoxy- and 2:6-dimethoxy-*p*-benzoquinone. (b) Infra-red absorption of some quinones and 1:2-dicarbonyl compounds, 4821.
- Cotson, S.** See **Bradley, R. S.**
- Coulson, C. A., and de Heer, J.**, conjugation of a hetero-atom across a single bond, 483.
- Courts, A., and Petrow, V.**, new syntheses of heterocyclic compounds. Part XIII. Some 10-amino-1:3-dimethyl-2:9-diazaphenanthrenes. Part XV. 9:10-Dihydro-10-keto-1:3-dimethyl-2-aza-9-oxaphenanthrenes, 1, 334.
- Cowley, E. G.**, the dielectric polarisation of solutions. Part I. The polarisations and apparent dipole moments of various primary, secondary, and tertiary amines in solutions in non-polar solvents and in the liquid state, 3557.
- Cox, E. G., Dougill, M. W., and Jeffrey, G. A.**, the structure of α -oxalic acid and of the carboxyl group, 4854.
- Cox, E. G.** See also **Bradley, R. S.**
- Cox, J. D.**, phase relationships in the pyridine series. Part II. The miscibility of some pyridine homologues with deuterium oxide, 4606.
- Cox, J. D.** See also **Andon, R. J. L.**
- Craw, D. A., and Israel, G. C.**, the kinetics of chlorohydrin formation. Part III. The reaction between hypochlorous acid and crotonic acid at constant pH, 550.
- Crawford, J. W. C., and Plant, D.**, the pyrolysis of poly(*sec*-butyl α -chloroacrylate), 4492.
- Crawford, J. W. C., and Swift, S. D.**, the polymerizability of methyl α -*tert*-butylacrylate, 1220.
- Crawford, M., and Smyth, I. F. B.**, the optical resolution of 4:4' and 5:5'-diquinolyl, 4133.
- Crawford, M., and Stewart, F. H. C.**, the preparation of some alkylsubstituted benzoic acids, 4443.
- Crawhall, J. C., and Elliott, D. F.**, cyclisation, ring-fission, and acyl-migration reactions in the thiazoline field, 3094.
- Cresswell, W. T.** See **Vogel, A. I.**
- Cromartie, R. I. T., and Harley-Mason, J.**, melanin and its precursors. Part IV. Syntheses of β -3:4-dihydroxy-2- and -5-methylphenylalanine. Part V. Synthesis of 5- and 7-hydroxyindole from dihydroxyphenylalanines, 1052, 2525.
- Crombie, L.**, amides of vegetable origin. Part I. Stereoisomeric *N*-isobutylundeca-1:7-diene-1-carboxyamides and the structure of herculin. Part II. Stereoisomeric *N*-isobutylnona-1:5-diene-1-carboxyamides and the structure of pellitorine, 2997, 4338.
- Crombie, L., and Harper, S. H.**, experiments on the synthesis of the pyrethrins. Part VIII. Stereochemistry of jasmone and identity of dihydropyrethrene, 869.
- Cross, B. E.** See **Cocker, W.**
- Crossley, A., and Hilditch, T. P.**, the isomerisation of deca-2:4-dienoic acid in presence of alkali at 180°, 4613.
- Crow, W. D., Haworth, R. D., and Jefferies, P. R.**, purpurogallin. Part X. Further studies on the oxidation products of purpurogallin and purpurogallincarboxylic acid, 3705.
- Cullinane, N. M., Chard, S. J., and Leyshon, D. M.**, titanium tetrachloride as a catalyst in the Friedel-Crafts reaction. Part I. Acylation. Part II. Addition compounds, 376, 4106.
- Cullis, A. F.** See **Thomas, D. G.**
- Culvenor, C. C., Davies, W., and Savige, W. E.**, the conversion of ethylene oxides into ethylene sulphides, 4480.
- Cummings, G. A. McD., McCoubrey, J. C., and Ubbelohde, A. R.**, the configuration of flexible C₆ hydrocarbons in the vapour phase, 2725.
- Cunneen, J. I.** See **Bateman, L.**
- Curtis, R. F.** See **Baker, W.**
- Curtis, R. G., and Silberman, H.**, the degradation of the side chain of lanostadienol, 1187.
- Cymerman, J., and Faiers, D.**, potential thiophen chemotherapeutics. Part II. A thiophen analogue of "Marfanil" (maphenide), 165.
- Cymerman, J., and Gilbert, W. S.**, some reactions of 3-dimethylamino-1:1-diphenylbutyl cyanide, 3529.
- Cymerman, J.** See also **Bauer, L., and Carswell, D. J.**

D.

- Dabby, R. E., Kenyon, J., and Mason, R. F.**, the basic reductive fission of sulphones, 4881.
- Dainton, F. S.**, atoms and radicals in aqueous media, 1533.
- Dalgliesh, C. E.**, the synthesis of *N*-formyl-DL-kynurenine, *N*-acetyl-DL-kynurenine and related compounds, and observations on the synthesis of kynurenine, 137.
- the optical resolution of aromatic amino-acids on paper chromatograms, 3940.
- the detection and differentiation of 3:4- and 2:5-dihydroxyphenyl compounds related to tyrosine, 3943.
- Danby, C. J.** See **Carroll, T. C. N.**
- Daniels, D. G. H.** See **Cosgrove, D. J.**
- David, S. B.** See **Burton, H.**
- Davidge, O. T.** See **Amphlett, C. B.**
- Davies, A. G., and Elton, G. A. H.**, surface isomerisation. Part I. The surface-catalysed racemisation of 2-phenylbutane, 3298.
- Davies, A. G., and White, A. M.**, the resolution and reactions of 1:2:3:4-tetrahydro-1-naphthol; a new preparation of 1:2:3:4-tetrahydro-1-naphthyl hydroperoxide, 3300.
- Davies, C. W., and Thomas, G. G.**, ion-exchange resins as catalysts in the hydrolysis of esters, 1607.
- Davies, R. A., and Hickling, A.**, glow-discharge electrolysis. Part I. The anodic formation of hydrogen peroxide in inert electrolytes, 3595.
- Davies, W., Gamble, N. W., and Savige, W. E.**, the direct conversion of thionaphthen into derivatives of 9-thiafluorene, 4678.
- Davies, W.** See also **Culvenor, C. C.**
- Davis, M.** See **Ashley, J. N.**
- Davis, S. J., and Elvidge, J. A.**, heterocyclic syntheses with malonyl chloride. Part I. Pyrano-1:3-dioxins from ketones, 4109.
- Davis, W., and Ross, W. C. J.**, aryl-2-halogenoalkylamines. Part XI. The reaction of *NN*-di-2'-chloroethyl-2-naphthylamine with some phosphoric acid derivatives, 4296.
- Davison, W. H. T.** See **Cooper, W.**
- Davy, G. S.** See **Ames, T. R.**
- Dawson, J. K.**, magnetochemistry of the heaviest elements. Part V. Uranium tetrafluoride-thorium tetrafluoride solid solutions, correction. Part VI. PuO₂-ThO₂ and PuF₄-ThF₄ solid solutions. Part VII. Sodium plutonyl acetate, 1185, 1882, 2705.
- Dawson, J. K., and Lister, M. W.**, the magnetic susceptibility of urania-thoria solid solutions, 5041.
- Dawson, W.** See **Bentley, H. R.**

- Day, L. A.** See **Ward, E. R.**
- Dean, A. C. R.**, induced and other variations in bacterial cultures. Part V. The effect of ultra-violet irradiation on *Bact. coli* with special reference to nutritional mutants. Part VI. A comparison of the efficiency of the methods for isolating nutritional mutants, 2817, 2823.
- Dean, A. C. R.**, and **Hinshelwood, Sir C.**, induced and other variations in bacterial cultures. Part VII. The stability of the nutritional requirements of the strains isolated after irradiation of *Bact. coli*, 2826.
- Dean, A. C. R.** See also **Carroll, T. C. N.**
- De Heer, J.** See **Coulson, C. A.**
- Dekker, C. A.** See **Andersen, W.**, and **Brown, D. M.**
- De la Mare, P. B. D.**, some observations concerning the interpretation of heats of hydrogenation of olefinic substances, 1602.
- De la Mare, P. B. D.**, and **Vernon, C. A.**, the kinetics and mechanism of nucleophilic displacements in allylic systems. Part I. Reaction of 3:3-dichloroprop-1-ene with the ethoxide ion. Part II. The reactions between 3:3-dichloroprop-1-ene and the thiophenoxide ion. Part III. The reactions of 3:3:3-trichloro-2-methylprop-1-ene with nucleophilic reagents, 3325, 3331, 3628.
- Demerseman, P.** See **Buu-Hoi, Ng. Ph.**
- Densham, A. B.**, **Langston, D. J.**, and **Gough, G.**, the analysis of pyridine bases from coal tar by infra-red absorption spectroscopy, 2433.
- Densham, A. B.**, **Langston, D. J.**, and **Simpson, A. J.**, 2-ethylpyridine as a constituent on coal-tar bases, 5044.
- Dewar, M. J. S.**, colour and constitution. Part II. Aromatic hydrocarbons. Part III. Polyphenyls, polyenes, and phenylpolyenes; and the significance of cross-conjugation, 3532, 3544.
- D'Eyre, R. W. M.**, **Sellman, P. G.**, and **Murray, J. R.**, the thorium-selenium system, 2555.
- Dijksman, D. J.**, and **Newbold, G. T.**, 1:2-dihydro-2-thianaphthalene derivatives. Part II. Conversion of 1:2-dihydro-1-keto-2-thianaphthalenes into indanones, 13.
- Dippy, J. F. J.**, and **Moss, V.**, the rearrangement of *NN*-diacylanilines and the nuclear benzoylation of anilines, 2205.
- Dippy, J. F. J.**, and **Young, J. T.**, the catalysed reactions of simple aromatic compounds with ethylenic systems. Part II. Cinnamic acid, 1817.
- Djerassi, C.** See **Mancera, O.**
- Dodd, R. E.**, the photolysis of propaldehyde, 878.
- Dodgson, D. P.**, and **Haworth, R. D.**, some basic steroid derivatives, 67.
- Doig, G. G.**, **Loudon, J. D.**, and **McCloskey, P.**, the chemistry of the *Mitragyna* genus. Part IV. Derivatives of harman, 3912.
- Dostrovsky, I.**, **Gillis, J.**, **Llewellyn, D. R.**, and **Vromen, B. H.**, the separation of isotopes by fractional distillation. Part II. Determination of parameters from production data; value of the unit process separation factor for the $H_2^{16}O-H_2^{18}O$ system, 3517.
- Dostrovsky, I.**, **Llewellyn, D. R.**, and **Vromen, B. H.**, the separation of isotopes by fractional distillation. Part I. Fractionating columns for the enrichment of the heavy isotopes of oxygen in water, 3509.
- Dougall, D. K.** See **Anstee, J. R.**
- Dougill, M. W.** See **Cox, E. G.**
- Downing, D. F.** See **Baker, W.**
- Drain, D. J.** See **Banerjee, P. R.**
- Dry, L. J.**, and **Warren, F. L.**, the *Senecio* alkaloids. Part IX. The synthesis and resolution of 3:4-dihydroxy-2-methylpentane-3-carboxylic acids: viridifloric and trachelantic acids, 3445.
- Ducker, E.**, **Fieller, E. C.**, **Hookway, H. T.**, and **Townsend, R.**, high-polymer solutions. Part II. The determination of number-average molecular weights from measurements of osmotic pressure, 4390.
- Duff, J. C.**, and **Furness, V. I.**, reactions between dialkylanilines and hexamine in acetic acid and in formic acid, 1159.
- Duff, R. B.**, the constitution of a glucosan from the fungus *Polyporus betulinus*, 2592.
- Dulin, C. I.**, and **Elton, G. A. H.**, determinations of electrokinetic charge and potential by the sedimentation method. Part I. Silica in aqueous solutions of potassium chloride, 286.
- Duncanson, L. A.**, a study of the variations produced by sublimation in the infra-red spectra of some substituted succinic acids, 1753.
- Dunn, J. L.** See **Ash, A. S. F.**
- Dunn, J. R.**, **Waters, W. A.**, and **Wickham-Jones, C.**, the retardation of benzaldehyde autoxidation. Part III. A kinetic study of the actions of 3:5:3':5'-tetramethyl-4:4'-diphenoquinone and the corresponding quinol, 2427.
- Dunn, T. M.**, and **Iredale, T.**, absorption spectra of substances containing the carbon-iodine bond. Part II., 1592.
- Dunning, K. W.**, and **Dunning, W. J.**, the thermodynamics of dissociating solvents, 2993.
- Dunning, W. J.**, **Millard, B.**, and **Nutt, C. W.**, the heat of nitrolysis of hexamine in nitric acid, 1264.
- Dunning, W. J.** See also **Dunning, K. W.**
- Duthie, J. B.**, and **Plant, S. G. P.**, acenaphthylene-compounds. Part II., 1899.
- Duxbury, F. K.** See **Clemlow, G. R.**
- Dyer, F. J.**, **Kidd, D. A. A.**, and **Walker, J.**, experiments on the synthesis of potential cortical hormone substitutes. Part II., 4778.
- Dyne, P. J.**, and **Style, D. W. G.**, fluorescence obtained from formic acid, carbonyl chloride, and methylene iodide, 2122.
- E.**
- Eaborn, C.**, organosilicon compounds. Part III. Some sterically hindered compounds. Part IV. The preparation of organofluorosilanes, 2840, 2846.
- Eastham, A. M.**, the chemistry of ethylene oxide. Part IV. The kinetics of the reaction of ethylene oxide in pyridine solutions of hydrogen halides, 1936.
- Eastwood, T. A.**, and **Hinshelwood, Sir C.**, the comparative ease of oxidation of various ethers in the gaseous phase, 733.
- Easty, D. M.** See **Baker, J. W.**
- Eckert, B.** See **Buu-Hoi, Ng. Ph.**
- Edgar, O. B.**, structure-property relationships in polyethylene terephthalate co-polyesters, Part II. Second-order transition temperatures, 2638.
- Edgar, O. B.**, and **Ellery, E.**, structure-property relationships in polyethylene terephthalate co-polyesters. Part I. Melting points, 2633.
- Edward, J. T.**, and **Robinson, Sir R.**, strychnine and brucine. Part LIII. Compounds of phenols and certain strychnine derivatives, 1080.
- Edward, J. T.**, and **Waldron, D. M.**, the detection of deoxy-sugars, glycals, and methyl pentoses in paper partition chromatography, 3631.
- Edwards, L. J.**, the hydrolysis of aspirin in guinea-pig plasma, 4114.
- Egerton, M. J.**, **Gregory, G. I.**, and **Malkin, T.**, the sphingolipid field. Part II. An improved synthesis of racemic 2-amino-octadecane-1:3-diols, and an X-ray examination of its derivatives, 2272.
- Eglinton, G.**, **Jones, E. R. H.**, and **Whiting, M. C.**, researches on acetylenic compounds. Part XXXVIII. A new method for the introduction of the acetylenic linkage, 2873.
- Eisner, U.**, **Elvidge, J. A.**, and **Linstead, R. P.**, a second form of γ -carboxymethylenebutanolide, the enol-lactone of β -keto adipic acid, 2439.
- Ekstrand, T.** See **Brown, B. R.**
- El-Abbady, M.** See **Hilal, O. M.**
- Eley, D. D.**, and **King, P. J.**, the system benzene-hydrogen bromide-aluminium. Parts I and II., 2517, 4972.
- Eley, D. D.**, and **Saunders, J.**, the kinetics of ionic polymerisations. Part III. The side-chain effect in the vinyl ethers, 4167.
- Eley, D. D.**, and **Watts, H.**, aluminium halide complexes with pyridine, trimethylamine, and triethylamine. Part I., 1914.
- Elks, J.**, and **Waller, G. J.**, the synthesis of thyroxine and related substances. Part X. A synthesis of *D*-thyroxine, 2366.
- Ellery, E.** See **Edgar, O. B.**
- Elliott, D. F.** See **Crawhall, J. C.**
- Ellis, B.**, and **Petrow, V.**, steroids and related compounds. Part XIV. 5 β -Methyl-19-norcoprost-9(10)-ene-3 β :6 β -diol, 2246.

- Ellis, G. P., and Honeyman, J.**, *N*-substituted glycosylamines. Part II. The influence of water on the preparation of *N*-arylglycosylamines. Part III. Acetates, benzoates, and methyl ethers, 1490, 2053.
- Elmore, D. T., and Todd, A. R.**, nucleotides. Part XVIII. The synthesis and properties of adenosine-5' uridine-5' phosphate, 3681.
- El-Nawawy, A. S.** See **Baker, W.**
- Elton, G. A. H.**, adsorption from binary solutions of completely miscible liquids. Part II. Thermodynamic requirement for complete preferential adsorption, 1955.
- Elton, G. A. H., and Hirschler, F. G.**, determinations of electrokinetic charge and potential by the sedimentation method. Part II. Pyrex glass in aqueous potassium chloride solutions, 2953.
- Elton, G. A. H.** See also **Davies, A. G.**, and **Dulin, C. I.**
- Elvidge, J. A., and Linstead, R. P.**, heterocyclic imines. Part I. Imino-derivatives of isoindoline and their reaction with primary bases, 5000.
- conjugated macrocycles. Part XXIV. A new type of cross-conjugated macrocycle, related to the azaporphins, 5008.
- Elvidge, J. A., Linstead, R. P., and Smith, J. F.**, polyene acids. Part IV. The three geometrical isomers of $\alpha\alpha'$ -dimethylmuconic acid, 1026.
- Elvidge, J. A.** See also **Davis, S. J.**, and **Eisner, U.**
- El Wakkad, S. E. S., and Emara, S. H.**, the anodic oxidation of platinum at very low current density, 461.
- Emara, S. H.** See **El Wakkad, S. E. S.**
- Emeléus, H. J.** See **Brandt, G. R. A.**
- Entwistle, N.** See **Armitage, J. B.**
- Evans, A. G.** See **Bentley, A.**
- Evans, D. F., and Richards, R. E.**, the heats of formation of germanium tetrabromide and germanium tetraiodide, 1292.
- the preparation and magnetic susceptibility of clathrate compounds of nitric oxide and of oxygen, 3295.
- a new twin micro-calorimeter, and the heat of transformation of α - into β -quinol, 3932.
- Evans, R. M.** See **Attenburrow, J.**
- Evans, U. R., and Berwick, I. D. G.**, the passivity of metals. Part XI. The anodic behaviour of iron oxide films, 3432.
- Everest, D. A.**, the chemistry of bivalent germanium compounds. Part II. Some complex compounds of bivalent germanium, 1670.
- aluminium hypophosphite, 2945.
- F.**
- Fahim, H. A., and Fleifel, A. M.**, the preparation of some 4-*n*-alkyl-3-nitrobenzoic acids, 4519.
- Faiers, D.** See **Cymerman, J.**
- Fairfull, A. E. S., Lowe, J. L., and Peak, D. A.**, a convenient reagent for the preparation of thioamides, and the thiohydrolysis of *S*-alkylisothiourea derivatives, 742.
- Fairfull, A. E. S., Peak, D. A., Short, W. F., and Watkins, T. I.**, some derivatives of 1:6-diazapyrene and 4:5:6:7-dibenzo-1:3-diazacyclohepta-2:4:6-triene, 4700.
- Farid, M. K.** See **Soliman, G.**
- Farrar, K. R., Hamlet, J. C., Henbest, H. B., and Jones, E. R. H.**, studies in the polyene series. Part XLIII. The structure and synthesis of vitamin A₂ and related compounds, 2657.
- Fawcett, J. S.** See **Barnes, C. S.**, and **Braude, E. A.**
- Fearn, J. E.** See **Allen, M. J.**
- Feitelson, B. N., Mamalis, P., Moulalim, R. J., Petrow, V., Stephenson, O., and Sturgeon, E.**, some benzimidazole derivatives, 2389.
- Feitelson, B. N., and Petrow, V.**, new syntheses of heterocyclic compounds. Part XIV. Some new derivatives of 1:3-dimethyl-2-azafuorene. Part XVII. Diethylaminoethyl 1:3-dimethyl-2-aza-9-fluorylideneacetate, 228, 3358.
- Felton, D. G. I.**, the influence of structure on the ultra-violet absorption spectra of heterocyclic systems. Part III. Some dibenzocarbazoles, 1668.
- Felton, D. G. I.** See also **Clemo, G. R.**
- Ferguson, J., and Tinson, H. J.**, the phosphorescence emission of benzophenone, 3083.
- Feuell, A. J., and Skellon, J. H.**, the oxidation of monoethenoid fatty acids and esters; union of gaseous oxygen with ethyl, *n*-propyl, and *n*-butyl oleate, 59.
- Fewster, J. A.** See **Bayne, S.**
- Ficken, G. E., and Linstead, R. P.**, conjugated macrocycles. Part XXIII. Tetracyclohexenotetrazaporphin, 4846.
- Fieller, E. C.** See **Ducker, E.**
- Fischer, E.**, electric moments and intermolecular hydrogen bonds of cyclic amides and oxazolidones, 4525.
- Fischer, E., and Hirshberg, V.**, formation of coloured forms of spirans by low-temperature irradiation, 4522.
- Fleifel, A. M.** See **Fahim, H. A.**
- Fleš, D., and Balenović, K.**, the Raney nickel desulphurisation of *S*-benzyl-*N*-phthaloyl-L-cysteine, 2447.
- Fletcher, J. R.** See **Benstead, J. C.**
- Flett, M. St. C., and Plesch, P. H.**, the low-temperature polymerisation of isobutene. Part III. The end-group problem, 3355.
- Flood, A. E.** See **Bradfield, A. E.**
- Fodor, G., and Kiss, J.**, the stereochemistry of the 2-aminocyclopentanols, 1589.
- Fodor, G., and Koczka, K.**, the stereochemical course of the conversion of 2-ureido-alcohols into oxazolidines. Part I., 850.
- Ford, M. C., and Waters, W. A.**, properties and reactions of free alkyl radicals in solution. Part III. Some reactions with organic halogen compounds, 2240.
- Fordham, W. D.** See **Bowman, R. E.**
- Foreman, J. K.** See **Britton, H. T. S.**
- Forrest, H. S., Mason, H. S., and Todd, A. R.**, nucleotides. Part XI. Some preliminary experiments on a projected synthesis of flavin-adenine dinucleotide; new methods for the preparation of riboflavin-4':5'-phosphate, 2530.
- Forss, D. A., Freund, W., and Stove, E. R.**, some compounds related to hexoestrol, 5038.
- Foster, A. G.**, sorption hysteresis. Part II. The rôle of the cylindrical meniscus effect, 1806.
- Foster, A. G.** See also **Brown, M. J.**
- Fowles, G. W. A., and Pollard, F. H.**, studies on the behaviour of halides of the transition metals with ammonia. Part I. The reaction of niobium pentachloride with ammonia, 4938.
- Fowles, G. W. A.** See also **Pollard, F. H.**
- Frankel, M., and Halmann, M.**, *N*-carboxy-anhydrides of *O*-acetyl- and *O*-carbobenzyloxy-serine, 2735.
- Frankel, M., and Reichmann, M. E.**, some *N*-substituted derivatives of poly- α -aminoacrylic acid, 289.
- Fraser, M. M., and Raphael, R. A.**, a synthesis of histamine from but-2-yne-1:4-diol, 226.
- Freeman, H. C., and Le Fèvre, R. J. W.**, the action of light on diazoaminobenzene dissolved in ethanol, 2932.
- Freeman, H. C., Le Fèvre, R. J. W., and Maramba, F.**, the effect of dissolution in benzene on the apparent dipole moment of 1:8-cineole, 1649.
- Freeman, H. C., Le Fèvre, R. J. W., Northcott, J., and Worth, C. V.**, the polarities and ultra-violet spectra of phenyl *p*-tolyl azoxysulphone and its dialkylamino-derivatives, 3384.
- Freeman, H. C., Le Fèvre, R. J. W., Northcott, J., and Youhotsky, I.**, the possible occurrence of geometrical isomerism among the diazosulphones, 3381.
- Freund, W.**, preparation of 3-aryl-7-hydroxy-4-methylcoumarins, 1954.
- the reaction of diazonium salts with furylacrylic acid. Part I., 3068.
- a new synthesis of arsonic acids. Part II. Coupling of $\alpha\beta$ -unsaturated carbonyl compounds with diazotised arsanilic acid and 4-amino-2-nitrophenylarsonic acid. Part III. Coupling of furan, thiophen, and β -2-thienylacrylic acid with arsanilic acid, 3072, 3073.
- Freund, W.** See also **Forss, D. A.**
- Fudge, A. J., and Sykes, K. W.**, the reaction between ferric and iodide ions. Part I. Kinetics and mechanism, 119.
- Fuks, Z.** See **Balenović, K.**
- Fulton, J. D.** See **Osbond, J. M.**
- Furness, V. I.** See **Duff, J. C.**
- Fyfe, W. S.**, complex-ion formation. Part I. A general discussion of factors influencing the stability of metal amines and complex ions. Part II. The entropies of formation of some metal amines, 2018, 2023.

G.

- Gallagher, J. J., Newbold, G. T., Sharp, W., and Spring, F. S., pyrazine derivatives, Part XIV., and aspergillie acid, Part IV., 4870.
- Gamble, N. W. See Davies, W.
- Gamlen, G. A. See Addison, C. C.
- Garden, L. See Simpson, T. H.
- Garden, W. D., and Gunstone, F. D., the mixed condensation of ketones in the presence of methylanilinomagnesium bromide, 2650.
- Garner, W. E., Tammann memorial lecture, 1961.
- Geddes, K. W. See Bradley, W.
- Gee, R. See Benstead, J. C.
- Gerrard, W., Green, W. J., and Nutkins, R. A., dealkylation and hydrolysis of alkyl phosphites, phosphates, and phosphonates, 4076.
- Gerrard, W., and Jones, J. V., stability of isomeric butoxysilanes with respect to silicon tetrachloride and hydrogen chloride, 1690.
- Gerrard, W., and Lappert, M. F., fission of mixed ethers by boron trichloride, 1486.
- Gerrard, W., and Thrush, A. M., the function of pyridine in the carboxylic acid-thionyl chloride system, 741.
- Gerrard, W., and Whitbread, E. G. G., interaction of hydrogen halides and *n*-butyl phosphites, 914.
- Gibb, A. R. M. See Cook, J. W.
- Gibbons, D. See Belcher, R.
- Gibson, C. S. See Brain, F. H., and Tyabji, A. M.
- Gilbert, B. See Baker, W.
- Gilbert, L. See Butler, J. A. V.
- Gilbert, W. S. See Cymerman, J.
- Giles, C. H., and Neustädter, E. L., researches on monolayers. Part I. Molecular areas and orientation at water surfaces of aromatic azo-compounds containing long alkyl chains. Part II. The effect of acid and alkali upon monolayers of aromatic azo-compounds containing long alkyl chains. Part III. The effect of mono- and di-hydric phenols on monolayers of certain aromatic compounds, 918, 1864, 3806.
- Giles, C. H., Rose, T. J., and Vallance, D. G. M., studies in hydrogen-bond formation. Part I. Detection of the interaction of phenols with amido- and azo-groups, etc., by dielectric-constant measurement, 3799.
- Gill, J. E., and Munro, J., some derivatives of *cis*-1 : 2 : 3 : 6-tetrahydrophthalic anhydride, 4630.
- Gill, R., and Stonehill, H. I., a polarographic investigation of the redox behaviour of certain hydroxy- and sulphonic acid derivatives of anthraquinone, 1845.
a polarographic investigation of the tautomerism of 2-hydroxy- and 2 : 6-dihydroxy-anthraquinol, 1857.
- Gillespie, R. J., the use of *3d* orbitals in certain valency states of the carbon atom and other first-row elements, 1002.
- Gillis, J. See Dostrovsky, I.
- Glauert, R. H., and Mann, F. G., thio-oxindole, thioindoxyl, and certain carbonyl derivatives, 2127.
merocyanines derived from thio-oxindole. Part I. *merocyanines* having a dimethin chain attached to the 3-thionaphthen nucleus. Part II. *merocyanines* having a tetramethin, hexamethin, or diazadimethin chain attached to the 3-thionaphthen nucleus, 2135, 5012.
the molecular rearrangement of the phenylhydrazones of thio-oxindole-3-aldehyde and of 3-acetyl(thio-oxindole), 2401.
- Glockling, F. See Coates, G. E.
- Gold, V., Hawes, B. W. V., and Tye, F. L., the basicity of hydrocarbons. Part I. Cryoscopy of conjugated hydrocarbon and carbinol solutes in sulphuric acid, 2167.
- Gold, V., and Tye, F. L., the basicity of hydrocarbons. Part II. Ultra-violet absorption spectra of conjugated hydrocarbons in sulphuric acid solution. Part III. The distribution of some conjugated hydrocarbons between acidic and inert solvents. Part IV. A theoretical treatment of conjugated hydrocarbons, 2172, 2181, 2184.
- Goldberg, A. A., hydrolysis of substituted *o*-chlorobenzoic acids; the mechanism of the reaction between *o*-halogenobenzoic acids and nucleophilic reagents, 4368.
- Gordon, M. See Baddeley, G.
- Goring, D. A. I., and Johnson, P., an ultrafiltration method for the optical clarification of protein solutions in light-scattering investigations, 33.
- Gottlieb, D. See Bergmann, F.
- Gough, G. See Densham, A. B.
- Goulden, J. D. S., the structure of the aminopyridines, 2939.
- Goulden, J. D. S. See also Cosgrove, D. J.
- Govaert, F. See Verzele, M.
- Graupner, K., and Winter, E. R. S., some measurements of the self-diffusion coefficients of liquids, 1145.
- Gray, G. W., Hartley, J. B., and Jones, B., an improved synthesis of 4-bromo-4'-hydroxydiphenyl, 1959.
- Gray, J. A., the mercury photo-sensitized oxidation of ethane and methane, 3150.
- Green, G. F. H. See Cookson, R. C.
- Green, P. N. See Bowden, K.
- Green, W. J. See Gerrard, W.
- Greenhalgh, C. W., Henbest, H. B., and Jones, E. R. H., studies in the sterol group. Part LIII. The preparation of 7-hydroxy-3-keto- Δ^4 -steroids. Part LIV. The preparation of some 7 α -methoxy-steroids, 2375, 2380.
- Greenhalgh, C. W. See also Bladon, P.
- Greenhow, E. J., McNeil, D., and White, E. N., the chemistry of fluorene. Part II. The dehydration of 9-hydroxyethylfluorenes, 986.
- Gregory, G. I. See Egerton, M. J.
- Greville, G. D., and Northcote, D. H., reactions with periodate of 2 : 3 : 4 : 6-tetramethyl β -glucose, the trimethyl β -glucopyranoses, and other methoxy-compounds, 1945.
a synthesis of 3 : 4 : 6-trimethyl glucose, 1957.
- Griffin, J. W., and Hey, D. H., aminoalkanesulphonamides and alkanedisulphonamides, 3334.
- Griffiths, V. S., densities of some binary liquid mixtures. Part I., 1326. —
- Gripp, V. E. See Birch, S. F.
- Grove, John Frederick, infra-red spectroscopy and structural chemistry. Part III. Gladiolic acid, 3345.
altarnaric acid. Part I. Purification and characterisation, 4056.
- Grove, John Frederick, Ismay, D., MacMillan, J., Mulholland, T. P. C., and Rogers, M. A. T., griseofulvin. Part II. Oxidative degradation, 3958.
- Grove, John Frederick, MacMillan, J., Mulholland, T. P. C., and Rogers, M. A. T., griseofulvin. Part I. Part IV. structure, 3949, 3977.
- Grove, John Frederick, MacMillan, J., Mulholland, T. P. C., and Zealley, J., griseofulvin. Part III. The structures of the oxidation products $C_9H_9O_5Cl$ and $C_{14}H_{15}O_7Cl$, 3967.
- Groves, L. H., and Swan, G. A., the constitution of yohimbine and related alkaloids. Part VI. The synthesis of 1 : 2 : 3 : 4 : 6 : 7 : 12 : 12b-octahydro-2-ketoindolo(2 : 3-a)-pyridocoline and 1 : 2 : 3 : 4-tetrahydroindolo(2 : 3-a)pyridocoline, 650.
- Grundon, M. F. See King, F. E.
- Grundy, M. E., Hsu, W., and Rothstein, E., the reaction between aromatic compounds and derivatives of tertiary acids. Part VII. The production of *p*-*tert*-butylphenyl and *isobut*-1-enyl *tert*-butyl ketones from pivaloyl chloride, 4136.
- Gulland, J. M. See Anderson, A. S.
- Gunstone, F. D., fatty acids. Part I. 9-Hydroxyoctadec-12-enoic acid, a new hydroxy-acid occurring in *Strophanthus sarmmentosus* seed oil, 1274.
- Gunstone, F. D., and Heggie, R. M., experiments on the synthesis of santonin. Part I. The preparation of the lactone of α -(2-hydroxy-3-ketocyclohexyl)propionic acid. Part II. The preparation of compounds containing the dienone system present in santonin, 1354, 1437.
- Gunstone, F. D. See also Garden, W. D.
- Gupta, A., and Malkin, T., an X-ray and thermal examination of the glycerides. Part XII. Chaulmoogric and hydrocarpic acids and their mono-, di-, and tri-glycerides, 2405.
- Gupta, A. K., electrochemical measurements in pyridine. Part I. The system $Cu-Cu^+-Cu^{++}$. Part II. The redox potentials of some quinones, 3473, 3479.

H.

- Haksar, C. N. See Baker, W.
- Halberstadt, E. S., and Prue, J. E., kinetic salt effects on the decomposition of diacetone alcohol in solutions of tetraalkylammonium hydroxides, 2234.

- Hale, D. K., Hawdon, A. R., Jones, J. I., and Packham, D. I.**, the carboxylation of resorcinol and the separation of β - and γ -resorecylic acid by ion-exchange chromatography, 3503.
- Hale, D. K.** See also **Pepper, K. W.**
- Halevi, E. A.** See **Bunton, C. A.**
- Halfpenny, E., and Robinson, P. L.**, pernitrous acid; the reaction between hydrogen peroxide and nitrous acid, and the properties of an intermediate product, 928.
the nitration and hydroxylation of aromatic compounds by pernitrous acid, 939.
- Hall, D. M., Mahboob, S., and Turner, E. E.**, structure and amoebicidal activity. Parts II and III. Aliphatic diamines, 149, 1956.
- Hall, D. M.** See also **Beaven, G. H.**
- Hall, R. H., and Stern, E. S.**, $\alpha\beta$ -unsaturated aldehydes and related compounds. Part II. The reaction of $\alpha\beta$ -unsaturated aldehydes with unsaturated alcohols in the presence of alkali, 4083.
- Hall, Ross H.** See **Anand, N.**
- Halmann, M.** See **Frankel, M.**
- Halsall, T. G., Jones, E. R. H., and Meakins, G. D.**, the chemistry of the triterpenes. Part XI. The conversion of lupeol into germanicol (*isolupeol*); the structure of lupeol hydrochloride, 2862.
- Halsall, T. G.** See also **Ames, T. R.**
- Hamer, F. M.**, some trinuclear cyanine dyes. Part V. Attempted synthesis of dyes isomeric with those of the neocyanine type, 3197.
- Hamilton, B., and Kermack, W. O.**, the isolation of α -spinasterol from *colocynth*, 5051.
- Hamlet, J. C.** See **Farrar, K. R.**
- Hamrick, D. L., Mason, S. F., and Meacock, G. W.**, the rates of hydrolysis of some acridine antimalarials, 4745.
- Hamrick, D. L., and Munro, D. C.**, a new synthesis of 1-amino-4-methylthioxanthone and of Miracil D, 1077.
- Hamrick, D. L., and Roe, A. M.**, quinaldinoyl chloride, 4545.
- Hamrick, D. L.** See also **Astell-Burt, A.**
- Hampton, A.** See **Albert, A.**
- Hancock, D. C.** See **Bradley, D. C.**
- Harborne, J. B.** See **Baker, W.**
- Hardy, D. V. N., and Hatt, H. H.**, the formation of triaryl-methylphosphonic acids from triarylmethylphosphonyl dicarlorides, 3778.
- Harkness, M. L. R., and Wassermann, A.**, the intrinsic viscosity of sodium alginate, 497.
- Harley-Mason, J.**, some aliphatic thiols and their derivatives. Part II. Thiols derived from 2:2'-dichlorodiethyl sulphide and its analogues; nickel complexes from 1:5-dithiols, 146.
reaction of propiolactone with indoles and pyrrole, 2433.
- Harley-Mason, J.** See also **Cromartie, R. I. T.**
- Harper, S. H.** See **Crombie, L.**
- Harris, E. F. P., and Waters, W. A.**, properties and reactions of free alkyl radicals in solution. Part IV. The direct reaction between alkyl radicals and aliphatic aldehydes, 3108.
- Harris, G., Howard, G. A., and Pollock, J. R. A.**, the chemistry of hop constituents. Part III. The structures of humulinic and *isohumulonic* acids, 1906.
- Harris, J. O.** See **Clemo, G. R.**
- Harris, R. J. C.** See **Beale, R. N.**
- Hart, E. P.**, an improved synthesis of pyridine-2-aldehyde, 4540.
- Hartley, J. B.** See **Gray, G. W.**
- Harvey, W. E.** See **Briggs, L. H.**
- Haszeldine, R. N.**, the addition of free radicals to unsaturated systems. Part I. The direction of radical addition to 3:3:3-trifluoropropene, 2504.
perfluoroalkyl Grignard reagents. Part I. The preparation and some reactions of heptafluoro-*n*-propylmagnesium iodide, 3423.
reactions of fluorocarbon radicals. Part VII. Addition to trifluoromethyl-substituted acetylenes, 3490.
the reactions of metallic salts of acids with halogens. Part III. Some reactions of salts of fluorohalogeno-acetates and of perfluoro-acids, 4259.
fluoro-olefins. Part I. The synthesis of hexafluorobutadiene-1:3-diene, 4423.
- Haszeldine, R. N., and Leedham, K.**, reactions of fluorocarbon radicals. Part VI. The hydration of trifluoromethyl- and pentafluoroethyl-substituted acetylenes, 3483.
- Haszeldine, R. N., and Sharpe, A. G.**, the reactions of metallic salts of acids with halogens. Part II. The interaction of silver trifluoroacetate or silver perchlorate and halogens in various solvents, 993.
- Haszeldine, R. N.** See also **Alberman, K. B., and Brandt, G. R. A.**
- Hatt, H. H., and Stephenson, E. F. M.**, heterocyclic nitrogen compounds. Part II. The preparation of 5:7:12:14-tetrahydro-6:13-diazanaphthacene and some derivatives thereof, with an example of ring expansion and contraction in a Clemmensen reduction, 199.
- Hatt, H. H.** See also **Hardy, D. V. N.**
- Hawdon, A. R., Hughes, E. D., and Ingold, C. K.**, mechanism of substitution at a saturated carbon atom. Part XXXV. Effect of temperature on the competition between unimolecular solvolytic and non-solvolytic substitutions of di-*p*-tolylmethyl chloride; activation in the fast step of unimolecular non-solvolytic substitution, 2499.
- Hawdon, A. R.** See also **Hale, D. K.**
- Hawes, B. W. V.** See **Gold, V.**
- Haworth, J. W.** See **Cohen, A.**
- Haworth, R. D., MacGillivray, R., and Peacock, D. H.**, 3:4-dihydro-2-ketonaphtho(1':2'-5:6)-1:3-oxazine, 2857.
the action of formaldehyde on proteins. Part III. The hydrolysis of formaldehyde-hardened proteins by enzymes, 2981.
- Haworth, R. D., and McLachlan, J. M.**, galloflavin. Part I., 1583.
- Haworth, R. D., Peacock, D. H., Smith, W. R., and MacGillivray, R.**, the action of formaldehyde on proteins. Part II. Some reactions of *N*-hydroxymethylamides, 2972.
- Haworth, R. D.** See also **Crow, W. D., and Dodgson, D. P.**
- Heacock, R. A., and Hey, D. H.**, internuclear cyclisation. Part III. An extension of the Pschorr phenanthrene synthesis to the synthesis of phenanthridones. Part VI. The synthesis of some methyl-, halogeno-, and carbomethoxy-*N*-methylphenanthridones, 1508, 4059.
- Head, A. J.** See **Barton, D. H. R.**
- Head, F. S. H., and Hughes, G.**, the oxidation of simple organic substances by sodium metaperiodate in solutions exposed to daylight, 2046.
- Head, F. S. H., and Standing, H. A.**, reactions in aqueous solutions of sodium metaperiodate exposed to artificial light, 1457.
- Heggie, R. M.** See **Gunstone, F. D.**
- Heller, L., and Taylor, H. F. W.**, hydrated calcium silicates. Part III. Hydrothermal reactions of mixtures of lime:silica molar ratio 3:2. Part IV. Hydrothermal reactions: lime:silica ratios 2:1 and 3:1, 1018, 2535.
- Hems, B. A.** See **Attenburrow, J.**
- Henbest, H. B.**, phenyl propargyl ketone, 4536.
- Henbest, H. B., Jones, E. R. H., Wood, G. W., and Woods, G. F.**, studies in the steroid group. Part LVIII. Oxidation of 5 α :8 α -epidioxy- $\Delta^9(11)$ -steroids, 4894.
- Henbest, H. B., Shaw, B. L., and Woods, G.**, studies in the polyene series. Part XLI. A new isomerisation product from citral, 1154.
- Henbest, H. B., and Woods, G.**, studies in the polyene series. Part XL. Preparation and properties of 2-acetyl-1:3:3-trimethylcyclohexene, 1150.
- Henbest, H. B.** See also **Bladon, P., Brown, J. B., Farrar, K. R., and Greenhalgh, C. W.**
- Hendry, J. A., and Homer, R. F.**, new cytotoxic agents with tumour-inhibitory activity. Part I. Some aziridino-pyrimidine derivatives, 328.
- Henry, A. J.** See **Cornforth, J. W.**
- Henry, J. A.** See **Martin, W. F.**
- Henry, S. H.** See **Bourne, E. J.**
- Hepburn, J. R. I., and Phillips, R. F.**, the alums. Part I. A study of the alums by measurement of their aqueous dissociation pressures, 2569.
- Herington, E. F. G., and Kynaston, W.**, the effect of solvent on the ultra-violet absorption spectra of aromatic hydrocarbons with special reference to the mechanism of salting-out. Part I. Alcoholic lithium chloride solutions. Part II. Aqueous salt solutions, 3137, 3143.

- Heuberger, O., and Owen, L. N.**, tetrahydropyran-3 : 4-diol and tetrahydro-2 : 2 : 5 : 5-tetramethylfuran-3 : 4-diol, 910.
- Hewitt-Symonds, A. E.** See **Baker, W.**
- Hey, D. H.**, some recent developments in the chemistry of free-radical reactions in solution, 1974.
- Hey, D. H., Honeyman, J., and Peal, W. J.**, the steroid series. Part II. Further reactions of fucosterol and 24-keto-cholesterol, 4836.
- Hey, D. H., and Mulley, R. D.**, internuclear cyclisation. Part V. The cyclisation of derivatives of diphenylmethane, benzophenone, and *N*-methyl-diphenylamine, 2276.
- Hey, D. H., Stuart-Webb, J., and Williams, G. H.**, acylaryl-nitrosamines. Part VI. The rearrangement, decomposition, and deacylation of acylaryl-nitrosamines, 4657.
- Hey, D. H.** See also **Ashdown, A., Augood, D. R., Chase, B. H., Griffin, J. W., and Heacock, R. A.**
- Heyes, J. K.** See **Robertson, P. W.**
- Heyes, T. D., and Roberts, J. C.**, synthesis of potential anti-bacterial agents. Part II. A pyrimidine analogue of chaulmoogric acid, 4935.
- Hickling, A.** See **Davies, R. A.**
- Higginson, W. C. E., and Wooding, N. S.**, anionic polymerisation. Part I. The polymerisation of styrene in liquid ammonia solution catalysed by potassium amide, 760.
- Higginson, W. C. E.** See also **Wooding, N. S.**
- Hilal, O. M., and El-Abbad, M.**, purification of yttrium by precipitation with sodium nitrite, 2935.
- Hilditch, T. P.** See **Crossley, A.**
- Hilmy, M. K.** See **Mustafa, A.**
- Hinkel, L. E., and Summers, G. H. R.**, studies on hydrogen cyanide. Part XVIII. The reaction of the sesquichloride of hydrogen cyanide with mesitylene in the presence of aluminium chloride, 2813.
- Hinselwood, Sir C.**, on the chemical kinetics of autolytic systems, 745.
- Hinselwood, Sir C.** See also **Carroll, T. C. N., Dean, A. C. R., Eastwood, T. A., and Scopes, A. W.**
- Hirschler, F. G.** See **Elton, G. A. H.**
- Hirshberg, Y.** See **Fischer, E.**
- Hirst, E. L.** See **Chanda, S. K.**
- Hoán, Ng.** See **Buu-Hoi, Ng. Ph.**
- Hodgkin, D. C., and Sayre, D.**, a crystallographic examination of the structure of lumisterol, 4561.
- Hoggarth, E.**, 2-benzoyldithiocarbazine acid and related compounds, 4811.
- the reaction between *NN'*-dithiocarbamylhydrazine and hydrazine, 4817.
- Holdt, M. M. von.** See **Lighthelm, S. P.**
- Holland, D. O., and Nayler, J. H. C.**, experiments in the synthesis of methionine, 3403.
- Holliday, A. K., and Sowler, J.**, the compound of boron trichloride with dioxan, 11.
- Holms, W. H.** See **Bayne, S.**
- Holness, N. J.** See **Barton, D. H. R.**
- Holstead, C., and Lamberton, A. H.**, nitramines and nitramides. Part III. The formation of nitric acid by the action of sulphuric acid, 1886.
- Holt, G.** See **Baddeley, G.**
- Holt, P. F., and Hopson-Hill, B. I.**, a study of diazo-compounds by use of nitrogen isotopes; the reduction of mixed diazonium salts of anthranilic acid and aniline, 4251.
- Homer, R. F.** See **Hendry, J. A.**
- Honeyman, J.** See **Ansell, E. G., Barry, C. P., Ellis, G. P., and Hey, D. H.**
- Hookway, H. T., and Townsend, R.**, high-polymer solutions. Part I. Osmotic-pressure measurements with poly(vinyl alcohol) membranes, 3190.
- Hookway, H. T.** See also **Ducker, E.**
- Hopkins, H. B.** See **Burton, H.**
- Hopson-Hill, B. I.** See **Holt, P. F.**
- Horning, W. C.** See **Brand, J. C. D.**
- Hough, L., and Jones, J. K. N.**, the synthesis of sugars from simpler substances. Part III. Enzymic synthesis of a pentose. Part IV. Enzymic synthesis of 6-deoxy-D-fructose and 6-deoxy-L-sorbose, 4047, 4052.
- synthesis of 3 : 4-dimethyl D-xylene and 4-methyl D-xylene, 4349.
- Hough, L., Jones, J. K. N., and Magson, M. S.**, methylene derivatives of D-galactose and D-glucose, 1525.
- Hough, L., Jones, J. K. N., and Richards, E. L.**, the reaction of amino-compounds with sugars. Part I. The action of ammonia on D-glucose, 3854.
- Hough, L., Jones, J. K. N., and Wadman, W. H.**, some observations on the constitution of gum myrrh, 796.
- an investigation of the polysaccharide components of certain fresh-water algae, 3393.
- Hough, L.** See also **Andrews, P.**
- Howard, G. A., and Pollock, J. R. A.**, the chemistry of hop constituents. Part II. Oxidation products of lupulone, 1902.
- Howard, G. A.** See also **Harris, G.**
- Howard, R. T.** See **Badger, G. M.**
- Howlett, K. E.**, studies on unimolecular chlorohydrocarbon decompositions. Parts II and III, 3695, 4487.
- Hsü, W.** See **Grundy, M. E.**
- Huck, N. D.** See **Coates, G. E.**
- Hughes, E. D.** See **Benfey, O. T., Blackall, E. L., Hawdon, A. R., and Perez Ossorio, R.**
- Hughes, E. G.** See **Cohen, A.**
- Hughes, G.** See **Head, F. S. H.**
- Hughes, H.** See **Bateman, L.**
- Hughes, I. W.** See **Barker, C. C.**
- Hull, R.**, carbohydrate derivatives of alkyl dithiocarbazines, 2959.
- Hunter, G. D.** See **Arnstein, H. R. V., and Cook, A. H.**
- Hunter, Leon.** See **Cook, J. W.**
- Hunter, Louis.** See **Burrows, A. A.**

I.

- Illingworth, E., and Peters, A. T.**, acenaphthene series. Part VII. The three isomeric *tert*-butylacenaphthenes. Migration of *tert*-butyl groups and disproportionation, preparation and orientation of 1 : 3 : 6-tri-*tert*-butyl-acenaphthene, 2730.
- Ing, H. R.** See **Bailey, A. S.**
- Ingold, C. K.** See **Benfey, O. T., Blackall, E. L., Cohn, H., and Hawdon, A. R.**
- Ingram, D. W.** See **Buxton, M. W.**
- Iredale, T.** See **Dunn, T. M.**
- Irving, H., and Bell, C. F.**, studies with dithizone. Part IV. The dissociation constant of dithizone, 1216.
- Irving, H., Bell, C. F., and Williams, R. J. P.**, studies with dithizone. Part III. The extraction constant of zinc dithizonate, 356.
- Irving, H.** See also **Alford, E. J.**
- Islam, A. M., and Raphael, R. A.**, bicyclo[4 : 3 : 0]non-6-en-8-one, 4086.
- Ismay, D.** See **Grove, John Frederick.**
- Israel, G. C.** See **Craw, D. A., and Reeve, K. D.**
- Israelshvili, S.** See **Bergmann, F.**
- Ivinson, M. G.** See **Baddeley, G.**
- Ivory, H. G., McKenzie, W. D., Packer, J., and Vaughan, J.**, the hydrolysis of amides of dibasic acids. Part I. The acid hydrolysis of malonamide and malonamic acid, 3264.

J.

- Jack, J.** See **Cook, J. W.**
- Jackman, L. M., and Macbeth, A. K.**, reductions with aluminium alkoxides. Part III. The kinetics of the racemization of optically active alkoxides by their corresponding ketones, 3252.
- Jackson, J.** See **Kofod, H.**
- Jacobs, J.**, electron distribution in conjugated free radicals, 292.
- Jacquignon, P.** See **Buu-Hoi, Ng. Ph.**
- James, A. M.** See **Barry, P. J.**
- James, D. W. F.** See **Butler, J. A. V.**
- James, J. W.** See **Chapman, N. B.**
- Jansen, A. B. A.** See **Attenburrow, J.**
- Jarvis, J. A. J.** See **Brain, F. H.**
- Jefferies, P. R.** See **Anstee, J. R., and Crow, W. D.**
- Jeffery, G. H.** See **Vogel, A. I.**
- Jeffrey, G. A., and Parry, G. S.**, the structure of the oxalate ion, 4864.
- Jeffrey, G. A.** See also **Cox, E. G.**

- Jeffreys, R. A.**, oxazole cyanine and merocyanine dyes, and intermediates, 4823.
- Jeffreys, R. A.**, and **Knott, E. B.**, the colour of organic compounds. Part VI. A comparison of isomeric dyes from 3-alkyl-2-thiothiazolid-4- and -5-ones, 4632.
- Jeffreys, R. A.** See also **Knott, E. B.**
- Jenkins, A. D.**, the preparation and dimerization of methyketen, 2563.
- Johns, R. B.** See **Benstead, J. C.**
- Johnson, A. W.**, **Todd, A. R.**, and **Vining, L. C.**, actinomycin. Part II. Studies on the chromophoric grouping, 2672.
- Johnson, A. W.** See also **Bartels-Keith, J. R.**, and **Brown, B. R.**
- Johnson, F.** See **Budziarek, R.**
- Johnson, L. V.**, **Smith, F.**, **Stacey, M.**, and **Tatlow, J. C.**, organic fluorides. Part XIV. The synthesis of some aromatic fluoro- and chloro-compounds, 4710.
- Johnson, P.** See **Goring, D. A. I.**
- Jones, A. S.**, **Kaye, M. A. G.**, and **Stacey, M.**, the condensation of long-chain fatty acids with polysaccharides and proteins, 5016.
- Jones, B.**, and **Chapman, F.**, the nitration of esters of 4-hydroxydiphenyl. The preparation of 4-hydroxy-4' and -2'-nitrodiphenyls, 1829.
- Jones, E. R.** See also **Gray, G. W.**
- Jones, B. R. H.** See **Ames, T. R.**, **Armitage, J. B.**, **Bladon, P.**, **Brown, J. B.**, **Cook, C. L.**, **Eglinton, G.**, **Farrar, K. R.**, **Greenhalgh, C. W.**, **Halsall, T. G.**, and **Henbest, H. B.**
- Jones, J. I.**, the stability of polyvinyl acetate in technical mustard gas solution, 883.
- Jones, J. I.**, and **Lindsey, A. S.**, studies of coal tar bases. Part VI. Hydrogenation of 2-methylpyridine, 3261.
- Jones, J. I.** See also **Cartwright, N. J.**, and **Hale, D. K.**
- Jones, J. K. N.**, and **Wise, L. E.**, the hemicelluloses present in aspen wood (*Populus tremuloides*). Parts I and II., 2750, 3389.
- Jones, J. K. N.** See also **Andrews, P.**, and **Hough, L.**
- Jones, J. V.** See **Gerrard, W.**
- Jones, R. L.**, 4-chloro-2-iodophenoxyacetic acid labelled with ¹³¹I, 4080.
- Jordan, D. O.**, and **Mathieson, A. R.**, the kinetics of catalytic polymerizations. Part I. The polymerization of styrene catalyzed by aluminium chloride in carbon tetrachloride solution. Part II. The mechanism of the polymerization of styrene catalyzed by aluminium chloride. Part III. The kinetics and mechanism of the polymerization of α -methylstyrene catalyzed by aluminium chloride. Part IV. Molecular-weight distribution in polar polymerizations. Part V. The molecular-weight distribution of poly(α -methylstyrene) prepared by the aluminium chloride-catalyzed polymerization, 611, 621, 2354, 2358, 2363.
- Josey, A. D.** See **Pelletier, S. W.**
- Jurd, L.** See **King, F. E.**
- K.**
- Kalmus, A.** See **Bergmann, F.**
- Kamel, M.** See **Tadros, W.**
- Kaye, M. A. G.** See **Jones, A. S.**
- Kaye, R. C.**, and **Stonehill, H. I.**, the polarographic reduction of crystal-violet, brilliant-green, malachite-green, and auramine, 3231.
- the polarographic reduction of pyridine, quinoline, and phenazine, 3240.
- the polarographic reduction of some natural and artificial hydrogen-carriers in bacterial enzyme systems, 3244.
- Keneford, J. R.**, **Lourie, E. M.**, **Morley, J. S.**, **Simpson, J. C. E.**, **Williamson, J.**, and **Wright, P. H.**, cinnolines and other heterocyclic types in relation to the chemotherapy of trypanosomiasis. Part I. General introduction. Part II. Quaternary salts of amino-cinnolines, -quinazolines, and -quinolines, 2595.
- Kenner, G. W.**, and **Khorana, H. G.**, peptides. Part II. Selective degradation by removal of the terminal amino-acid bearing a free amino-group; the use of alkyl alkoxy-dithioformates (dialkyl xanthates), 2076.
- Kenner, G. W.**, and **Stedman, R. J.**, peptides. Part I. The synthesis of peptides through anhydrides of sulphuric acid, 2069.
- Kenner, G. W.**, and **Stedman, R. J.**, the compounds of alkylamines with esters of azodicarboxylic acid, 2089.
- Kenner, G. W.**, **Todd, A. R.**, and **Weymouth, F. J.**, nucleotides. Part XVII. *N*-Chloroamides as reagents for the chlorination of diesters of phosphorous acid; a new synthesis of uridine-5' pyrophosphate, 3675.
- Kenner, G. W.** See also **Corby, N. S.**
- Kenyon, J.**, and **Mason, R. F.**, alkyl-oxygen fission in carboxylic esters. Part XI. Reactions of secondary alcohols containing the 2 : 4 : 6-trimethoxyphenyl radical, 4964.
- Kenyon, J.**, and **Ross, W. A.**, a new reaction mechanism for the Marckwald asymmetric synthesis, 2307.
- Kenyon, J.** See also **Balfe, M. P.**, and **Dabby, R. E.**
- Kermack, W. O.** See **Hamilton, B.**
- Kerridge, R.**, melting-point diagrams for binary triglyceride systems, 4577.
- Khairy, E. M.** See **Tourky, A. R.**
- Khorana, H. G.**, peptides. Part III. Selective degradation from the carboxyl end. The use of carbodi-imides, 2081.
- Khorana, H. G.** See also **Kenner, G. W.**
- Kidd, D. A. A.** See **Dyer, F. J.**
- Kierstead, R. W.**, **Linstead, R. P.**, and **Weedon, B. C. L.**, cyclopropanes. Part I. The malonate condensation with 1 : 4-dibromobut-2-ene; a convenient new route to vinyl-cyclopropane derivatives. Part II. The addition of ethyl sodiomalonate to ethyl cyclopropane-1 : 1-dicarboxylate and its 2-vinyl derivative, 3610, 3616.
- King, F. E.**, **Grundon, M. F.**, and **Neill, K. G.**, the chemistry of extractives from hardwoods. Part IX. Constituents of the heartwood of *Ferreirea spectabilis*, 4580.
- King, F. E.**, and **Jurd, L.**, the chemistry of extractives from hardwoods. Part VIII. The isolation of 5 : 4'-dihydroxy-7-methoxyisoflavone (prunetin) from the heartwood of *Pterocarpus angolensis* and a synthesis of 7 : 4'-dihydroxy-5-methoxyisoflavone hitherto known as prunetin, 3211.
- King, F. E.**, **Jurd, L.**, and **King, T. J.**, isotaxiresinol (3'-dimethylsolariciresinol), a new lignan extracted from the heartwood of the English yew, *Taxus baccata*, 17.
- King, F. E.**, **King, T. J.**, and **Sellars, K.**, the chemistry of extractives from hardwoods. Part V. The isolation of 3 : 7 : 4'-trimethylquercetin (ayanin) from the heartwood of *Distemonanthus benthamianus*, 92.
- King, F. E.**, **King, T. J.**, and **Warwick, A. J.**, the chemistry of extractives from hardwoods. Part VI. Constituents of mungia, the heartwood of *Pterocarpus angolensis*. A : 6 : 4'-dihydroxy-5 : 7-dimethoxyisoflavone (muningin). Part VII. Constituents of mungia, the heartwood of *Pterocarpus angolensis*. B : 2 : 4-Dihydroxyphenyl 1-*p*-methoxyphenylethyl ketone (angolensin), 96, 1920.
- King, F. E.**, **Latham, K. G.**, and **Partridge, M. W.**, the synthesis of 2-imino-3-phenyl- and -3 : 3-diphenyl-pyrrolidines, 4268.
- King, F. E.**, and **Neill, K. G.**, the chemistry of extractives from hardwoods. Part X. The constitution of ferreirin and of homoferreirin, 4752.
- King, F. E.**, and **Spensley, P. C.**, the use of nitro- and halogeno-ketones in the synthesis of pteridines, including ptericoic acid, from 2 : 4 : 5-triamino-6-hydroxypyrimidine, 2144.
- King, P. J.** See **Eley, D. D.**
- King, T. J.** See **King, F. E.**
- Kinnear, A. M.**, and **Perren, E. A.**, formation of organophosphorus compounds by the reaction of alkyl chlorides with phosphorus trichloride in the presence of aluminium chloride, 3437.
- Kipling, J. J.**, the composition of acetic acid-water mixtures, 2858.
- Kipling, J. J.**, and **Tester, D. A.**, adsorption from binary mixtures : determination of individual adsorption isotherms, 4123.
- Kipping, F. B.** See **Alberman, K. B.**
- Kiss, J.** See **Fodor, G.**
- Klyne, W.**, the molecular rotations of polycyclic compounds. Part I. General principles and the correlation of the triterpenoids with the steroids, 2916.
- Knott, E. B.**, oxonols derived from azol-5-ones, 2399.
- polymethin dyes from 4 : 5-disubstituted thiazoles, 4099.
- Knott, E. B.**, and **Jeffreys, R. A.**, the colour of organic compounds. Part VII. Complex cyanines and merocyanines, 4762.
- Knott, E. B.** See also **Jeffreys, R. A.**

- Knox, K., Norrish, R. G. W., and Porter, G., the photochemical decomposition of keten by means of light of very high intensity, 1477.
- Koczka, K. See Fodor, G.
- Kofod, H., Sutton, L. E., and Jackson, J., the molecular structure of pyrrole and some of its simple derivatives, from electric dipole moment measurements, 1467.
- Kovács, J., and Bruckner, V., the structure of native poly-D-glutamic acid. Part I, 4255.
- Kruger, S., the bromination product of acridone, 3648.
- Kurzer, F., and Powell, J. R., the decomposition of arylthiolsulphonic acids. Identification of thiolsulphonic and sulphonic acids as benzylthiuronium derivatives, 3728.
- Kynaston, W. See Herington, E. F. G.
- L.
- Laidlaw, R. A., the formation of 3-methyl 1 : 2-isopropylidene xylofuranose, 2941.
- Laland, S. G., Overend, W. G., and Stacey, M., deoxypentose nucleic acids. Part III. Some effects of ultrasonic waves on deoxypentose nucleic acids, 303.
- Laland, S. G., Overend, W. G., and Webb, M., deoxypentose-nucleic acids. Part IV. The properties and composition of the deoxypentose nucleic acids from certain animal, plant, and bacterial sources, 3224.
- Lamberton, A. H., the action of methylmagnesium iodide on two nitramines, 4539.
- Lamberton, A. H. See also Holstead, C.
- Langemann, A. See Bartels-Keith, J. R.
- Langley, B. W., Lythgoe, B., and Rayner, L. S., macrozamin. Part III. Azoxymethane and some simple analogues, 4191.
- Langston, D. J. See Densham, A. B.
- Lappert, M. F. See Gerrard, W.
- Larner, B. W., and Peters, A. T., new intermediates and dyes. Part II. Preparation and properties of 4-*tert*.-butylphthalic anhydride; orientation of its condensation products with benzenoid hydrocarbons. Part III. Condensation of 4-*tert*.-butylphthalic anhydride with acenaphthene. 6-*tert*.-Butylquinizarin and derived cellulose acetate dyes, 680, 1368.
- Latham, K. G. See King, F. E.
- Latif, N. See Schönberg, A., and Tadros, W.
- Lavit, D. See Buu-Hoi, Ng. Ph.
- Lawson, A. See Bullerwell, R. A. F.
- Leadill, W. K. See Campbell, N.
- Leahy, G. D. See Beckwith, A. L.
- Lee, W. A., and Peacocke, A. R., the interaction of Schiff's reagent with deoxyribonucleic acids, 130.
- Leedham, K. See Haszeldine, R. N.
- Le Fèvre, R. J. W., and Maramba, F., the apparent dielectric polarisation of (+)- or (-)- or (±)-*a*-pinene, -camphor, -piperitone, and -menthol, of limonene and dipentene, and of diethyl tartrate or racemate, 235.
- Le Fèvre, R. J. W., and Northcott, J., the absorption spectrum of an equimolecular mixture of azoxybenzene and hydrazobenzene, 4082.
- Le Fèvre, R. J. W. See also Angyal, C. L., Barclay, G. A., Buckingham, A. D., and Freeman, H. C.
- Leicester, J. See Vogel, A. I.
- Le Quesne, W. J., and Young, G. T., amino-acids and peptides. Part VI. Synthesis of L-aspartyl peptides from carbo-benzoyloxy-L-aspartic anhydride. Part VII. The autohydrolysis of glutamyl-peptides, 24, 594.
- Lesslie, M. S. See Beaven, G. H.
- Levine, H. A., and Allen, M. J., the electrolytic reductive coupling of *p*-dimethylaminoacetophenone and *p*-methoxyacetophenone, 254.
- Levine, H. A. See also Allen, M. J.
- Levy, J. L. See Chapman, N. B.
- Lewis, J. See Addison, C. C.
- Leyshon, D. M. See Cullinane, N. M.
- Libman, D. D., Pain, D. L., and Slack, R., some bisquaternary salts, 2305.
- Ligthelm, S. P., Schwartz, H. M., and Holdt, M. M. von, the chemistry of ximenynic acid, 1088.
- Ligthelm, S. P. See also Ahlers, N. H. E.
- Lindsey, A. S. See Barton, D. H. R., and Jones, J. I.
- Linthead, R. P., Lunt, J. C., Weedon, B. C. L., and Shephard, B. R., anodic syntheses. Part VI. Chain extension of fatty acids by an isoprene unit, 3621.
- Linthead, R. P., Shephard, B. R., and Weedon, B. C. L., anodic syntheses. Part VII. Electrolyses of mono-, di-, and tri-phenylacetic acids in non-aqueous solutions, 3624.
- Linthead, R. P., and Whalley, M., conjugated macrocycles. Part XXII. Tetrazaporphin and its metallic derivatives, 4839.
- Linthead, R. P. See also Blood, C. T., Eisner, U., Elvidge, J. A., Ficken, G. E., and Kierstead, R. W.
- Lister, B. A. J., and McDonald, L. A., some aspects of the solution chemistry of zirconium, 4315.
- Lister, M. W. See Dawson, J. K.
- Littauer, U. Z. See Bergmann, E. D.
- Littlejohn, R. F., and Whittingham, G., the decomposition of sulphuric acid in town's gas flames, 3304.
- Llewellyn, D. R. See Bunton, C. A., and Dostrovsky, I.
- Lock, M. V. See Anderson, A. S.
- Loewenthal, H. J. E., and Pappo, R., the Stobbe condensation with dimethyl homophthalate, 4799.
- Long, R., and Schofield, K., 3-nitro-*o*-cresol, 2437.
- Longuet-Higgins, H. C., and Sowden, R. G., hypsochromic shifts in methylated hydrocarbons, 1404.
- Lopez Aparicio, F. J., and Waters, W. A., properties and reactions of free alkyl radicals in solution. Part V. A study of the reactions of the 2-cyano-2-propyl radical with quinones, 4666.
- Loudon, J. D. See Abadir, B. J., Cook, J. W., and Doig, G. G.
- Lourie, E. M. See Keneford, J. R.
- Lovell, B. J. See Bladon, P.
- Lowe, J. L. See Fairfull, A. E. S.
- Lumb, P. B., and Smith, J. C., higher aliphatic compounds. Part X. A synthesis of tariric and petroselinic acids, 5032.
- Lunt, J. C. See Linthead, R. P.
- Lynch, H. M., O'Toole, T. M., and Wheeler, T. S., thermal cyclization of *o*-aroyloxyacetarones. Part II. Further syntheses in the flavone series (diflavones and flavonols), 2063.
- Lyons, L. E. See Carswell, D. J.
- Lythgoe, B. See Langley, B. W.
- M.
- McAllan, D. T. See Birch, S. F.
- McArdle, J. See Buchanan, G. L.
- Macbeth, A. K., and Shannon, J. S., reactions of $\alpha\beta$ -unsaturated cyclic aldehydes and ketones. Part IX. (-)-*cis*- and (+)-*trans*-Piperitol from (-)-piperitone. Part X. (+)-*trans*-Pulegol and a (-)-pulegol from (+)-pulegone, 2852, 4748.
- Macbeth, A. K. See also Jackman, L. M.
- McCloskey, P. See Cook, J. W., and Doig, G. G.
- McCormick, J. See Cocker, W.
- McCoubrey, J. C. See Cummings, G. A. McD.
- Macdonald, C. G. See Angyal, S. J.
- McDonald, I. R. C., the chemistry of the wood cell wall. Part III. The isolation of beech hemicellulose A, 3183.
- McDonald, I. R. C. See also Campbell, W. G.
- McDonald, L. A. See Lister, B. A. J.
- McDonald, S. F., a general route to $\beta\beta'$ -substituted pyrrole intermediates for porphyrin synthesis, 4176.
- the syntheses of pyrroles, a porphyrin, and the maleinimide related to the uroporphyrins, 4184.
- McDonald, S. F. See also Brown, B. R.
- McEwan, J. A., and Spring, F. S., steroids. Part IV. Stigmasta-7 : 9(11) : 22-trien-3 β -yl acetate, 3646.
- Macey, P. E., and Simpson, J. C. E., cinnolines and other heterocyclic types in relation to the chemotherapy of trypanosomiasis. Part III. Synthesis of 4 : 4'-diamino-6 : 6'-azoquinoline metho-salts, 2602.
- McGhie, J. F., Pradhan, M. K., and Cavalla, J. F., lanosterol. Part XIV. Further experiments on the reduction of ketones in the lanosterol series, 3176.
- MacGillivray, R. See Haworth, R. D.
- McGilvray, D. I., 4-methyl β -methylglucoside and some further derivatives of β -methylglucoside, 3648.

- McGrath, L.** See **Beer, R. J. S.**
- McHatton, L. P.,** and **Soulal, M. J.,** unusual reactions of thallium. Part I. Alkoxides and aryloxides of thallium as oxidising agents, 2771.
- McIlroy, R. J.,** West African plant gums. Part I. *Khaya grandifoliola* and *Anogeissus schimperi*, 1918.
- McIntyre, J.,** and **Simpson, J. C. E.,** cinnolines and other heterocyclic types in relation to the chemotherapy of trypanosomiasis. Part IV. Synthesis of azocinnoline derivatives. Part V. Quaternary salts of 4 : 4'-bismethyl-amino-6 : 6'-azocinnoline, 2606, 2615.
- McKean, L. C.,** **Manson, W.,** and **Spring, F. S.,** triterpene resinols and related acids. Part XXV. Ketoisoleoanolic acid and isoleoanolic acid, 432.
- Mackenzie, N.** See **Barrer, R. M.**
- McKenzie, W. D.** See **Ivory, H. G.**
- Mackie, A.,** and **Raeburn, J.,** preparation of 2 : 3-dihydro-3-ketobenz-1 : 4-thiazine derivatives as possible anthelmintics, 787.
- McKinley-McKee, J. S.,** and **Moelwyn-Hughes, E. A.,** the kinetics of two ionic exchange reactions of the methyl halides in ethylene glycol solution, 838.
- McLachlan, J. M.** See **Haworth, R. D.**
- Maclean, D.** See **Allan, G. G.**
- MacLeod, D.** See **Barrer, R. M.**
- MacMillan, J.,** nitration of 2-acetamido-5-methoxytoluene, 4019.
- MacMillan, J.** See also **Grove, John Frederick.**
- McNeil, D.** See **Greenhow, E. J.**
- McNiven, N. L.,** and **Read, J.,** researches in the menthone series. Part XVII. Configurations of menthols and menthylamines. Part XVIII. Pyrolysis of (-)-menthyl acetate, 153, 2067.
- researches in the carvone series. Part V. Configuration of carvomenthones and carvomenthylamines and their steric relation to menthones, 159.
- McOmie, J. F. W.** See **Baker, W.,** **Boarland, M. P. V.,** and **Pollard, F. H.**
- MacPhee, K. E.** See **Barltrop, J. A.**
- McQuillin, F. J.** See **Clemo, G. R.**
- McSweeney, G. P.,** **Wiggins, L. F.,** and **Wood, D. J. C.,** anhydrides of polyhydric alcohols. Part XVI. The action of phenols on some ethylene oxide derivatives, 37.
- McSweeney, G. P.** See also **Bourne, E. J.**
- Magrath, D. I.** See **Brown, D. M.**
- Magson, M. S.** See **Hough, L.**
- Mahboob, S.** See **Hall, D. M.**
- Makar, S. M.** See **Baddeley, G.**
- Malkin, T.** See **Egerton, M. J.,** and **Gupta, A.**
- Mamalis, P.** See **Feitelson, B. N.**
- Mancera, O.,** **Barton, D. H. R.,** **Rosenkranz, G.,** and **Djerassi, C.,** 22-isoallopirost-8(14)-en-3 β -ol and 3 β -hydroxyallopregn-8(14)-en-20-one, 1021.
- Mangini, A.,** and **Passerini, R.,** investigations of aromatic sulphides and sulphones; ultra-violet absorption spectra of some diaryl sulphides, 1168.
- Mann, F. G.,** and **Baker, F. C.,** the preparation and properties of 1 : 4-dimethylethylene-*o*-phenylenediarsine and of diethylene-*o*-phenylenediarsine, 4142.
- Mann, F. G.,** and **Millar, I. T.,** the preparation and properties of hexahydro-1 : 4-azaphosphine, 3039.
- the cyanoethylation of aryl phosphines, 4453.
- Mann, F. G.,** and **Reid, J. A.,** xanthenes and thioxanthenes. Part IV. The preparation and properties of 9-oxa-1-aza-anthrone and 9-thia-1-aza-anthrone, 2057.
- Mann, F. G.,** and **Smith, B. E.,** the preparation of alkyl-arylsarsines, 4544.
- Mann, F. G.** See also **Almond, C. Y.,** **Braunholtz, J. T.,** and **Glauert, R. H.**
- Manners, D. J.** See **Bell, D. J.**
- Manson, W.** See **McKean, L. C.**
- Maramba, F.** See **Freeman, H. C.,** and **Le Fèvre, R. J. W.**
- Marmion, D.** See **Cartwright, N. J.**
- Marsh, C. A.,** the synthesis of conjugated hexuronic acids, 1578.
- Marsh, H. S.** See **Alford, E. J.**
- Marsh, J. K.,** the separation of the lanthanous with the aid of ethylenediaminetetra-acetic acid ("enta acid"). Part IV. Sodium lanthanon sulphate precipitation from sodium lanthanon enta solution, 4804.
- Marshall, J. R.,** and **Walker, J.,** experiments on the synthesis of simple *C*-substituted derivatives of dihydroxyacetone, 467.
- Martin, F. S.,** a basic trinuclear ruthenium acetate, 2682.
- a hexavalent ruthenium sulphate, 3055.
- Martin, W. F.,** **Bentley, H. R.,** **Henry, J. A.,** and **Spring, F. S.,** the isolation of novacine, an alkaloid from *Strychnos nux-vomica*, L., and its identification as *N*-methyl-*sec*-*psuedobrucine*, 3603.
- Martin-Smith, M.** See **Benstead, J. C.**
- Mason, H. S.** See **Forrest, H. S.**
- Mason, R. F.** See **Dabby, R. E.,** and **Kenyon, J.**
- Mason, R. G.** See **Bowman, R. E.**
- Mason, S. F.** See **Hammick, D. H.**
- Mathias, A. P.** See **Baddiley, J.**
- Mathieson, A. R.** See **Jordan, D. O.**
- Mathieson, N. K.,** and **Angyal, S. J.,** the replacement of secondary tosyloxy-groups by iodine in polyhydroxy-compounds, 1133.
- Matic, M.,** and **Sutton, D. A.,** the chemistry of polymerised oils. Part III. Reduction of some organic peroxides with lithium aluminium hydride, 2679.
- Masted, E. B.,** and **Ball, G. T.,** the reversibility of the adsorption of catalyst poisons. Part I. The revival of poisoned catalysts by simple washing, 4284.
- Maxwell, K. H.,** **Butler, G.,** and **Thirsk, H. R.,** some structural properties of α -MnO₂ containing NH₄⁺, K⁺, Na⁺, Ca⁺⁺, and Ba⁺⁺ ions, 4210.
- Meacock, G. W.** See **Hammick, D. L.**
- Meakins, G. D.** See **Halsall, T. G.**
- Mehrotra, R. C.** See **Bradley, D. C.**
- Melville, H. W.,** transient entities in chemical reactions, 1547.
- Mercer, R. A.,** and **Williams, A. F.,** inorganic chromatography on cellulose. Part XIII. Determination of tantalum and niobium in low-grade phosphatic and siliceous ores, 3399.
- Michael, M.,** **White, D. E.,** and **Woods, M. C.,** allylbenzene compounds. Part III. Pyrolysis of methyl 2-allyloxy-3 : 4-dimethoxybenzoate, 4589.
- Michael, M.** See also **Anstee, J. R.**
- Miles, L. W. C.,** and **Owen, L. N.,** dithiols. Part XII. The alkaline hydrolysis of acetylated hydroxy-thiols: a new reaction for the formation of cyclic sulphides, 817.
- Millar, I. T.** See **Mann, F. G.**
- Millard, B.** See **Dunning, W. J.**
- Millar, J.,** the S_N mechanism in aromatic compounds. Part II., 3550.
- Miller, J.** See also **Beckwith, A. L.**
- Miller, S. A.,** **Tebboth, J. A.,** and **Tremaine, J. F.,** dicyclopentadienylyron, 632.
- Mills, J. A.,** correlations between monocyclic and polycyclic unsaturated compounds from molecular rotation differences, 4976.
- Milne, A. H.,** and **Tomlinson, M. L.,** 1 : 2 : 3 : 4-tetrahydro-6-hydroxycarbazole and 3-hydroxycarbazole, 2789.
- Moelwyn-Hughes, E. A.** See **McKinley-McKee, J. S.**
- Molera, M. J.,** and **Stubbs, F. J.,** the kinetics of the thermal decomposition of olefins. Part II., 381.
- Mongar, I. L.,** and **Wassermann, A.,** absorption of electrolyte by alginate gels without and with cation exchange, 492.
- influence of ion exchange on optical properties, shape, and elasticity of fully-swollen alginate fibres, 500.
- heat effects accompanying the absorption of simple electrolytes by fully-swollen alginate and cellulose gels; a new microcalorimetric method, 510.
- Monk, C. B.,** the condensed phosphoric acids and their salts. Part VI. Dissociation constants of strontium trimetaphosphate and tetrametaphosphate. Part VII. Ion association between some trivalent cations and the tri- and tetra-metaphosphates, 1314, 1317.
- Monk, C. B.** See also **Colman-Porter, C. A.**
- Montgomery, R.,** and **Smith, P.,** organic fluorides. Part XI. Fluorination of heterocyclic compounds with cobalt trifluoride, 258.
- Moore, C. G.,** 2-mercaptobenzothiazole derivatives. Part I. The reaction of di(benzothiazol-2-yl) disulphide with olefins, 4232.
- Moore, C. G.,** and **Waight, E. S.,** 2-mercaptobenzothiazole derivatives. Part II. The thermal decomposition and isomerisation of 2-alkyl- and 2-alkenyl-thiobenzothiazoles and 3-alkyl- and 3-alkenyl-2-thiobenzothiazolines, 4237.

- Moore, R. F., and Waters, W. A.**, the retardation of benzaldehyde autoxidation. Part IV. Isolation of chain-termination products from 3:5:3':5'-tetramethyl-4:4'-diphenylquinone, 2432.
- Morley, J. S.**, the chemotherapy of filariasis. Part I. Monoacyl derivatives of 1:2:3:4-tetrahydroquinoxaline. Part II. Monoacyl derivatives of 5:10-dihydro- and *trans*-1:2:3:4:5:10:11:12-octahydro-phenazine, 4002, 4008.
- Morley, J. S., and Simpson, J. C. E.**, cinnolines and other heterocyclic types in relation to the chemotherapy of trypanosomiasis. Part VI. Synthesis of quaternary salts of dicinnolyl- and diquinolyl-ureas, -thioureas, and -guanidines, 2617.
- Morley, J. S.** See also **Keneford, J. R.**
- Morrison, A. L.** See **Andrews, K. J. M.**
- Morrison, T. J.**, the salting-out of non-electrolytes. Part I. The effect of ionic size, ionic charge, and temperature, 3814.
- Morrison, T. J., and Billett, F.**, the salting-out of non-electrolytes. Part II. The effect of variation in non-electrolyte, 3819.
- Mortimer, C. T., and Skinner, H. A.**, the thermochemistry of organo-arsenic compounds. Part I. Cacodyl, As_2Me_4 , 4331.
- Morton, J. E.** See **Campbell, A. D.**
- Moss, V.** See **Dippy, J. F. J.**
- Moualim, R. J.** See **Feitelson, B. N.**
- Muir, H. M.** See **Arnstein, H. R. V.**
- Mulholland, T. P. C.**, griseofulvin. Part V. Catalytic reduction. Part VI. Chemistry of the reduction products, 3987, 3994.
- Mulholland, T. P. C.** See also **Grove, John Frederick.**
- Mulley, R. D.** See **Hey, D. H.**
- Mumford, S. A.**, the molecular configuration of liquid *n*-aliphatic homologues, 4897.
- Munro, D. C.** See **Hammick, D. L.**
- Munro, J.** See **Gill, J. E.**
- Murray, J.**, lichens and fungi. Part I. Polyporic acid in *Stictiae*, 1345.
- Murray, J. R.** See **D'Eye, R. W. M.**
- Musgrave, O. C., Stark, J., and Spring, F. S.**, non-saponifiable constituents of Spanish broom, 4393.
- Musgrave, O. C., and Wagner, H. M.**, the triterpenoids of *Astonia verticillosa*, 2937.
- Musgrave, W. K. R.** See **Beaty, R. D., and Brown, F.**
- Mustafa, A.**, action of lithium aluminium hydride on (a) *NN'*-diarylsulphonyl derivatives of dianthranilide, and (b) photo-peroxides of 9:10-diarylanthracene, 2435.
- Mustafa, A., and Hilmy, M. K.**, action of Grignard reagents. Part IV. Action of Grignard reagents on substituted derivatives of naphthasultone, *N*-phenyl-*o*-sulphobenzoic imide, 2-phenyl-4:5-benzo-1:2-thiazolone, and 3-chloro-4:5-benzo-1:2-thiazole 1:1-dioxide, 1339.
- reactions with benzoxanthenes, 1343.
- reaction with diazomethane and its derivatives. Part III. Action of diazo-compounds on 2-arylideneindane-1:3-diones and methyleneanthrone, 1434.
- N.**
- Nath, B.** See **Clemon, G. R.**
- Nathan, W. S.** See **Birch, S. F.**
- Naylor, J. H. C.** See **Holland, D. O.**
- Naylor, J. R.**, dihalogeno-substituted terephthaldehydes and *p*-tolualdehydes, 4085.
- Neale, E., and Williams, L. T. D.**, heat of hydrolysis of phosphorus oxychloride and phosphorus trichloride, 4535.
- Neill, K. G.** See **King, F. E.**
- Nelson, S. M., and Pink, R. C.**, solutions of metal soaps in organic solvents. Part III. The aggregation of metal soaps in toluene, *isobutyl* alcohol, and pyridine, 1744.
- Neuberger, A.** See **Arnstein, H. R. V.**
- Neustädter, E. L.** See **Giles, C. H.**
- Newbold, G. T.** See **Allan, G. G., Berrie, A. H., Brown, J. J., Budziarek, R., Dijkstra, D. J., and Gallagher, J. J.**
- Newman, A. C. D., and Powell, H. M.**, the spontaneous optical resolution of solvated tri-*o*-thymotide, 3747.
- Newman, D. D. E., and Owen, L. N.**, olefinic acids. Part VIII. α -Bromocyclohexylideneacetic acid. Part IX. α -Bromo- β -*tert*-butyl- and α -bromo- β -diphenyl-acrylic acids, 4713, 4722.
- Newman, D. D. E.** See also **Braude, E. A.**
- Nichol, R. J., and Ubbelohde, A. R.**, a thermochemical evaluation of bond strengths in some carbon compounds. Part II. Bond strengths based on the reaction $CH_3I + HI \rightarrow CH_4 + I_2$, 415.
- Nicholls, G. A.** See **Briggs, L. H.**
- Nineham, A. W.**, the preparation of *p*-dimethylaminoacetophenone and its homologues, 635.
- Norrish, R. G. W.** See **Booth, G. H., and Knox, K.**
- Northcote, D. H.** See **Greville, G. D.**
- Northcott, J.** See **Freeman, H. C., and Le Fèvre, R. J. W.**
- Nunn, A. J., and Schofield, K.**, experiments on the preparation of certain derivatives of 2- and 4-benzylpyridine, 583.
- some *o*-aminophenyl-pyridyl- and -quinolyl-carbinols, 589.
- Nunn, A. J., Schofield, K., and Theobald, R. S.**, some experiments on the nitrofluorenes and related nitrophenanthridones, and observations on the Ullmann fluorenone synthesis, 2797.
- Nunn, J. R.**, the structure of sterculic acid, 313.
- Nursten, H. E.** See **Bradley, W.**
- Nutkins, R. A.** See **Gerrard, W.**
- Nutt, C. W.** See **Dunning, W. J.**
- Nutten, A. J.** See **Belcher, R.**
- Nyholm, R. S.**, studies in co-ordination chemistry. Part XI. New types of cuprous-tertiary arsine complexes. Part XII. A ditertiary arsine nickel carbonyl and some halogen derivatives, 1257, 2906.
- Nyholm, R. S., and Sharpe, A. G.**, studies in co-ordination chemistry. Part XIV. The magneto-chemistry of simple and complex fluorides of transition metals, 3579.
- Nyholm, R. S.** See also **Burstall, F. H.**
- O.**
- Odell, A. L.** See **Briggs, L. H.**
- Ollis, W. D., and Weight, D.**, the synthesis of 3-substituted chromones by rearrangement of *o*-acyloxyacetophenones, 3826.
- Ollis, W. D.** See also **Baker, W.**
- Openshaw, H. T., and Wood, H. C. S.**, studies of the structure of emetine. Part V. The structure of the rubremetinium salts, 391.
- Orgel, L. E.**, the effects of crystal fields on the properties of transition-metal ions, 4756.
- Osbond, J. M., Fulton, J. D., and Spooner, D. F.**, chemical constitution and amoebicidal action. Part II. Synthesis of 2-(1:2:3:4-tetrahydro-6:7-dimethoxy-2-methyl-1-*iso*-quinolylmethyl)-1-(1:2:3:4-tetrahydro-6:7-dimethoxy-1-*iso*-quinolyl)-butane and -pentane and other analogues of emetine, 4785.
- O'Shea, T.** See **Briggs, L. H.**
- O'Toole, T. M.** See **Lynch, H. M.**
- Overend, W. G.** See **Allerton, R., and Laland, S. G.**
- Overton, K. H.** See **Banerjee, P. R., and Barton, D. H. R.**
- Owen, L. N., and Smith, P. N.**, alicyclic glycols. Part VI. Derivatives of cyclopentane-1:2-diol. Part VII. Cyclopentane-1:3-diol; anionotropic rearrangement in some reactions of 3:5-dibromocyclopentene, 4026, 4035.
- Owen, L. N.** See also **Heuberger, O., Miles, L. W. C., and Newman, D. D. E.**
- P.**
- Packer, J., Thomson, A. L., and Vaughan, J.**, the hydrolysis of amides of dibasic acids. Part II. The acid hydrolysis of oxamide and oxamic acid, 4516.
- Packer, J., Vaughan, J., and Watts, T. W.**, mesitylurea and mesitylsemicarbazide, 2654.
- Packer, J.** See also **Ivory, H. G.**
- Packham, D. I.** See **Hale, D. K.**
- Pain, D. L.** See **Libman, D. D.**
- Palmer, A.** See **Bell, D. J.**
- Paneth, F. A.**, the chemical exploration of the stratosphere, 3651.

- Pappo, R.** See **Loewenthal, H. J. E.**
- Parry, G. S.** See **Jeffrey, G. A.**
- Partridge, M. W.** See **Cooper, F. C.**, and **King, F. E.**
- Passerini, R.** See **Mangini, A.**
- Patel, D. K., Petrow, V., Royer, R., and Stuart-Webb, I. A.**, steroids and related compounds. Part XIII. The preparation of 21-hydroxypregna-4 : 17-dien-3-one, 161.
- Paterson, R. M. L.** See **Briggs, L. H.**
- Paton, R. P.** See **Brand, J. C. D.**
- Pausacker, K. H.** See **Bloink, G. J.**
- Peacock, D. H.** See **Haworth, R. D.**
- Peacock, R. D.** See **Aynsley, E. E.**
- Peacocke, A. R.** See **Lee, W. A.**
- Peak, D. A.**, diamides. Part II. 2 : 4-Diaryltriazapentadienes, 215.
- Peak, D. A., and Stansfield, F.**, antituberculous compounds. Part X. Some reactions of quaternary compounds derived from *NN*-disubstituted thioamides, 4067.
- Peak, D. A.** See also **Fairfull, A. E. S.**
- Peal, W. J.** See **Hey, D. H.**
- Pearce, R. S.** See **Badger, G. M.**
- Peat, S., Pirt, S. J., and Whelan, W. J.**, enzymic synthesis and degradation of starch. Part XV. β -Amylase and the constitution of amylose. Part XVI. The purification and properties of the β -amylase of soya bean, 705, 714.
- Peat, S., Thomas, G. J., and Whelan, W. J.**, the enzymic synthesis and degradation of starch. Part XVII. Z-Enzyme, 722.
- evidence of multiple branching in waxy maize starch, 4546.
- Pelletier, S. W., and Josey, A. D.**, certain 2-pyrrolidinoethyl ketones, 1183.
- Pendleton, A. G.** See **Baddeley, G.**
- Pepper, K. W., Reichenberg, D., and Hale, D. K.**, properties of ion-exchange resins in relation to their structure. Part IV. Swelling and shrinkage of sulphonated polystyrenes of different cross-linking, 3129.
- Percival, E. E., and Zobrist, R.**, synthesis of 3 : 4- and 3 : 5-dimethyl xylose, 4306.
- Percival, E. E.** See also **Chanda, S. K.**
- Percival, E. G. V.** See **Bächli, P., Ballou, C. E., and Chanda, S. K.**
- Perez Ossorio, R., and Hughes, E. D.**, mechanism of substitution and rearrangement in prototropic systems. Racemisation and hydrogen exchange in methyleneazomethines, 426.
- Perren, E. A.** See **Kinnear, A. M.**
- Peters, A. T.** See **Illingworth, E., and Larner, B. W.**
- Petrow, V.** See **Berg, S. S., Courts, A., Ellis, B., Feitelson, B. N., and Patel, D. K.**
- Pettets, L. B.** See **Bok, L. D. C.**
- Pettit, R.** See **Badger, G. M.**
- Phillips, G. H., Robertson, A., and Whalley, W. B.**, furano-compounds. Part XII. Some analogues of kellin and visnagin, 4951.
- Phillips, R. F.**, the alums. Part II. A theory of hydrate dissociation and aqueous dissociation pressure, with particular reference to the alums, 2578.
- Phillips, R. F.** See also **Brain, F. H., and Hepburn, J. R. I.**
- Pickles, W.** See **Baddeley, G.**
- Piggott, H. A., and Slinger, F. H.**, 1 : 2 : 5 : 6-tetrachloronaphthalene, 259.
- Pinchas, S.** See **Bergmann, E. D.**
- Pinder, A. R.**, an alkaloid of *Dioscorea hispida*, Dennstedt. Part I. The lactone ring, 2236.
- Pinder, A. R., and Robinson, Sir R.**, experiments on the synthesis of substances related to the sterols. Part L. The A \rightarrow BCD route. Part III, 1224.
- Pink, R. C.** See **Nelson, S. M.**
- Pirt, S. J.** See **Peat, S.**
- Plant, D.** See **Crawford, J. W. C.**
- Plant, S. G. P.** See **Duthie, J. B.**
- Plesch, P. H.** See **Brackman, D. S., and Flett, M. St. C.**
- Pollard, F. H., and Fowles, G. W. A.**, preparation of crystalline nitrides of vanadium and niobium, 2444.
- Pollard, F. H., McOmie, J. F. W., and Stevens, H. M.**, the analysis of inorganic compounds by paper chromatography. Part V. The separation and detection of certain lanthanons, 4730.
- Pollard, F. H.** See also **Fowles, G. W. A.**
- Pollock, J. R. A.** See **Harris, G., and Howard, G. A.**
- Polya, J. B.** See **Atkinson, M. R.**
- Poole, H. G.** See **Cohn, H.**
- Poole, V. D.** See **Baker, W.**
- Poppelsdorf, F.** See **Atkinson, R. O.**
- Porter, G.** See **Knox, K.**
- Powell, H. M.** See **Brain, F. H., Newman, A. C. D., and Rayner, J. H.**
- Powell, J. R.** See **Kurzer, F.**
- Pradhan, M. K.** See **McGhie, J. F.**
- Praill, P. F. G.** See **Burton, H.**
- Press, E. M., and Butler, J. A. V.**, the action of ionizing radiations and of radiomimetic substances on deoxyribonucleic acid. Part IV. The products of the action of di-(2-chloroethyl)methylamine, 626.
- Prue, J. E.**, the kinetics of the metal-ion catalysed decarboxylation of acetonedicarboxylic acid, 2331.
- Prue, J. E.** See also **Halberstadt, E. S.**
- Pugh, W., and Stephen, A. M.**, the chlorostannates of hydrazine and 3 : 5 : 5-trimethylpyrazoline, 4138.

Q.

- Quartey, J. A. K.** See **Birch, A. J.**
- Quayle, J. R.** See **Brown, B. R.**

R.

- Raeburn, J.** See **Mackie, A.**
- Ramage, G. R., and Trappe, G.**, tetrahydroquinoxalines; a new route from *o*-amino-*N*-2'-hydroxyethylylanilines, 4406.
- glyoxalino-pyrimidines; the cyclisation of some 4-2'-chloroethylaminopyrimidines, 4410.
- Randle, R. R., and Whiffen, D. H.**, the characteristic infra-red absorption frequencies of aromatic nitro-compounds, 4153.
- Raphael, R. A.**, synthesis of carbohydrates by use of acetylenic precursors. Part II. Addition reactions of *cis*- and *trans*-but-2-ene-1 : 4-diol diacetates; synthesis of DL-erythrose, 401.
- Raphael, R. A., and Roxburgh, C. M.**, synthesis of carbohydrates by use of acetylenic precursors. Part III. *erythro*Hexane-1 : 3 : 4 : 6-tetrol, 3875.
- Raphael, R. A., and Scott, A. I.**, the self-condensation of cyclodecane-1 : 2-dione, 4566.
- Raphael, R. A., and Vogel, E.**, the alleged Beckmann rearrangement of quinone monoxime, 1958.
- Raphael, R. A.** See also **Cook, J. W., Fraser, M. M., and Islam, A. M.**
- Ray, N. H.** See **Buckley, C. D.**
- Rayner, J. H., and Powell, H. M.**, structure of molecular compounds. Part X. Crystal structure of the compound of benzene with an ammonia-nickel cyanide complex, 319.
- Rayner, L. S.** See **Langley, B. W.**
- Read, J., and Roebuck, D. S. P.**, the different reaction velocities of enantiomers with a common optically active reagent. Part II. Reactions between stereoisomeric menthols and menthyl isocyanates, 812.
- Read, J.** See also **McNiven, N. L.**
- Reed, R. I.** See **Bell, J.**
- Reeve, K. D., and Israel, G. C.**, the kinetics of chlorohydrin formation. Part IV. The reaction between hypochlorous acid and ethyl crotonate in the presence of sodium acetate-acetic acid buffers of constant pH, 2327.
- Reichenberg, D.** See **Pepper, K. W.**
- Reichmann, M. E.** See **Frankel, M.**
- Reid, D. H.** See **Campbell, N.**
- Reid, J. A.** See **Mann, F. G.**
- Reid, W. D.** See **Sheridan, J.**
- Richards, E. L.** See **Hough, L.**
- Richards, R. E.** See **Evans, D. F.**
- Riddiford, A. C., and Bircumshaw, L. L.**, the kinetics of the dissolution of zinc in aqueous iodine solutions. Parts III and IV., 698, 701.
- Rideal, Sir E.**, Presidential Address, 2479.
- Rigg, T., Scholes, G., and Weiss, J.**, chemical actions of ionising radiations in solutions. Part X. The action of X-rays on ammonia in aqueous solution, 3034.

- Rigg, T.**, and **Weiss, J.**, the photochemistry of iodide ions in aqueous solution, 4198.
- Riley, J. P.**, the spectrophotometric determination of the hydroxyl contents of aliphatic and alicyclic alcohols, 2108.
- Roberts, J. C.**, a confirmation of the structure of 2:6-dimethyl-4-pyrimidylmethyl-lithium and some observations on the condensation of 1:3-diketones with acetamide, 3065.
the preparation and stability of hydroxymaleic acid (oxaloacetic acid), 3315.
- Roberts, J. C.** See also **Heyes, T. D.**
- Roberts, J. J.**, and **Ross, W. C. J.**, aryl-2-halogenoalkylamines. Part X. The preparation of some derivatives of 1-aryl-3:4-dihalogenopyrrolidines and 1:4-bisarylamino-2:3-dihalogenobutanes, 4288.
- Robertson, A.** See **Beer, R. J. S.**, **Broadbent, P.**, and **Phillips, G. H.**
- Robertson, P. W.**, **Heyes, J. K.**, and **Swedlund, B. E.**, the kinetics of halogen addition to unsaturated compounds. Part XXII. Alkyl- and halogenoalkyl-ethylenes, 1014.
- Robins, P. A.**, and **Walker, J.**, studies of the Diels-Alder reaction. Part I. The reaction between 1-vinylcyclohex-1-ene and benzoquinone, and the reduction of $\Delta^{2,9(10)}$ -decahydro-1:4-diketophenanthrene. Part II. The reaction between methylvinylcyclohexene and benzoquinone, 642, 1610.
- Robinson, P. L.**, and **Smith, E. J.**, the kinetics of the oxidation of methane by nitrous oxide, 3895.
- Robinson, P. L.** See also **Aynsley, E. E.**, and **Halfpenny, E.**
- Robinson, Sir R.**, and **Saxton, J. E.**, experiments on the synthesis of the ring systems of strychnine and allied alkaloids. Part II., 976.
strychnine and brucine. Part LII. Conversion of the Wieland-Gumlich aldehyde into isostrychnic acid, 982.
- Robinson, Sir R.** See also **Acheson, R. M.**, **Bentley, K. W.**, **Edward, J. T.**, and **Pinder, A. R.**
- Robinson, R. A.**, the distribution of quinol between ether and water, 253.
the vapour pressure of aqueous solutions of beryllium sulphate and of uranyl sulphate at 25°, 4543.
- Roe, A. M.** See **Hammick, D. Ll.**
- Roe, E. M. F.** See **Beale, R. N.**
- Rosbuck, D. S. P.** See **Read, J.**
- Rogers, M. A. T.** See **Grove, John Frederick.**
- Roitt, I. M.**, and **Waters, W. A.**, the action of benzoyl peroxide on polycyclic aromatic hydrocarbons, 2695.
- Rose, F. L.**, new syntheses based on 5-aminopyrimidines, 3448.
- Rose, T. J.** See **Giles, C. H.**
- Rosenfelder, W. J.** See **Barton, D. H. R.**
- Rosenkranz, G.** See **Mancera, O.**
- Ross, A. G.** See **Chanda, S. K.**
- Ross, W. A.** See **Kenyon, J.**
- Ross, W. C. J.** See **Davis, W.**, and **Roberts, J. J.**
- Rothstein, E.**, and **Saville, R. W.**, the preparation of some unsaturated aliphatic derivatives of mercury and boron, 2987.
- Rothstein, E.** See also **Grundy, M. E.**
- Rowlands, D. A.**, and **Young, G. T.**, amino-acids and peptides. Part IX. γ -L-Glutamyl-L-alanine, -L-valine, and -L-leucine, 3937.
- Roxburgh, C. M.** See **Raphael, R. A.**
- Royer, R.** See **Buu-Hoi, Ng. Ph.**, and **Patel, D. K.**
- Rutherford, A.** See **Brand, J. C. D.**
- S.**
- Sadek, E. A.** See **Bradley, D. C.**
- Salem, A. G.** See **Burawoy, A.**
- Salmon, J. E.**, complexes involving trivalent iron and orthophosphoric acid; experiments with ion-exchange resins, 2316.
- Salmon, J. E.**, and **Tietze, H. R.**, the separation of quadrivalent and quinquevalent vanadium from phosphoric acid by ion-exchange resins; some observations on the reduction of quinquevalent vanadium by ion-exchange resins, 2324.
- Saunders, J.** See **Eley, D. D.**
- Saunders, L.**, and **Srivastava, R. S.**, the absorption of some organic bases by carboxylic acid ion-exchange resins. Part I. Equilibrium studies, 2111.
- Savage, W. E.** See **Culverner, C. C.**, and **Davies, W.**
- Saville, R. W.** See **Rothstein, E.**
- Saxton, J. E.**, the reaction between indole and acetic anhydride, 3592.
- Saxton, J. E.** See also **Barltrop, J. A.**, and **Robinson, Sir R.**
- Sayre, D.** See **Hodgkin, D. C.**
- Schönberg, A.**, and **Latif, N.**, experiments with halogenated *o*-benzoquinone derivatives, 446.
- Schoental, R.**, Friedel-Crafts succinoylation of anthracene; synthesis of 1' and 4'-hydroxy-1:2-benzanthracene, 4403.
- Schoental, R.** See also **Cameron, J. M. L.**, and **Cook, J. W.**
- Schofield, K.**, 4-phenylquinazoline, 1927.
- Schofield, K.**, **Swain, T.**, and **Theobald, R. S.**, the preparation of some *ac*-di-2-quinazolinylalkanes, 1924.
- Schofield, K.** See also **Alford, E. J.**, **Long, R.**, and **Nunn, A. J.**
- Scholes, G.** See **Rigg, T.**
- Schwartz, H. M.** See **Lighthelm, S. P.**
- Schwarz, F.** See **Badger, G. M.**
- Scopes, A. W.**, and **Hinshelwood, Sir C.**, multiple adaptations of *Bact. lactis aerogenes* (*Aerobacter aerogenes*) to various combinations of substrate, 1838.
- Scott, A. I.** See **Cook, J. W.**, and **Raphael, R. A.**
- Sebba, F.**, and **Sutin, N.**, a new apparatus for studying the evaporation of water through monolayers, 2513.
- Segnit, E. R.** See **Asker, W. J.**
- Sellars, K.** See **King, F. E.**
- Sellman, P. G.** See **D'Eye, R. W. M.**
- Seymour, D. E.** See **Banerjee, P. R.**
- Shafizadeh, F.**, and **Stacey, M.**, deoxy-sugars. Part XXIV. Conversion of D-glucal into furan derivatives, 3608.
- Shannon, J. S.** See **Macbeth, A. K.**
- Sharp, J. A.**, and **White, A. G.**, cobaltic acetate. Part I., 110.
- Sharp, W.** See **Gallagher, J. J.**
- Sharpe, A. G.**, thallium tri-iodide and related compounds, 2165.
the preparation of silver tetrafluoroborate and silver(I) fluoride, 4538.
- Sharpe, A. G.** See also **Haszeldine, R. N.**, and **Nyholm, R. S.**
- Shaw, B. L.**, and **Simpson, T. H.**, chelate systems. Part II., 5027.
- Shaw, B. L.** See also **Henbest, H. B.**
- Shaw, D. R. D.** See **Campbell, A. D.**
- Shaw, G.**, isooxazolones. Part III. Some reactions of arylaminomethyleneisooxazolones with bases, 3428.
- Shaw, G.** See also **Cook, A. H.**
- Sheldon, W. J.** See **Bauer, L.**
- Shepherd, B. R.** See **Linstead, R. P.**
- Sheridan, J.**, and **Reid, W. D.**, the metal-catalysed reaction between acetylene and hydrogen. Part VI. The reaction over rhodium and iridium, 2962.
- Shoppee, C. W.**, and **Summers, G. H. R.**, steroids. Part I. A new preparation of the cholesteryl halides. Part II. The preparation of epicholesteryl chloride and bromide. Part III. 3-Methyl-A-norcholest-3(5)-ene, 1786, 1790, 2528.
steroids and Walden inversion. Part VII. The stereochemistry and the mechanism of the *i*-steroid rearrangement. Part VIII. The epimeric 6-hydroxy-2:3-*sec*-cholestane-2:3-dicarboxylic acids, 3361, 3374.
- Short, L. N.**, infra-red studies of the salicylides and cresotides, 206.
hydrogen bonding and structural problems in the amino-acridines and -quinolines; infra-red studies, 4584.
- Short, L. N.**, and **Thompson, H. W.**, infra-red spectra of derivatives of pyrimidine, 168.
- Short, W. F.** See **Fairfull, A. E. S.**
- Silverman, H.** See **Curtis, R. G.**
- Silk, J. A.** See **Cohen, A.**
- Silverstone, G.** See **Bladon, P.**
- Simkins, R. J. J.**, and **Williams, G.**, the nitration of guanidine in sulphuric acid. Part I. The reversible conversion of guanidine nitrate into nitroguanidine, 3086.
- Simons, A.** See **Badger, G. M.**
- Simpson, A. J.** See **Deusham, A. B.**
- Simpson, J. C. E.** See **Keneford, J. R.**, **Macey, P. E.**, **McIntyre, J.**, and **Morley, J. S.**
- Simpson, T. H.**, and **Garden, L.**, chelate systems. Part I., 4638.
- Simpson, T. H.** See also **Shaw, B. L.**
- Skellon, J. H.**, and **Taylor, P. E.**, the oxidation of monoethenoid fatty acids and esters; the union of gaseous oxygen with erucic acid and methyl and *n*-propyl erucate, 1813.

- Skellon, J. H. See also Feuell, A. J.
- Skerrett, E. J., and Woodcock, D., insecticidal activity and chemical constitution. Part III. A new synthetic route to methyl analogues of DDT. Part IV. Synthesis of 2:2-di-*p*-chlorophenyl-3-methylbutane. Part V. Synthesis of some di-*p*-chlorophenylalkanes, 2804, 2806, 3308.
- Skinner, B. G. See Bell, R. P.
- Skinner, H. A. See Charnley, T., and Mortimer, C. T.
- Slack, R. See Libman, D. D.
- Slater, S. N., and Wilson, A. T., picrotoxin and tutin. Part V. The dehydration of picrotin and some alkaline degradations, 1597.
- Slater, S. N. See also Benstead, J. C., and Campbell, A. D.
- Slinger, F. H. See Piggott, H. A.
- Small, N. J. H., and Ubbelohde, A. R., the inhibitory effects of mercury and of hydrogen in the gas-phase oxidation of *n*-hexane, 4619.
- Smith, B. B. See Mann, F. G.
- Smith, E. J. See Robinson, P. L.
- Smith, F. F. See Akher, M. A., Buxton, M. W., Johnson, L. V., and Montgomery, R.
- Smith, F. E., 2:4:5-trichlorophenetole, 1531.
- Smith, F. J. See Bradbury, H.
- Smith, G. H., the separation of α -acetamido-acids by partition chromatography on kieselguhr, 1530.
- Smith, H. See Birch, A. J.
- Smith, J. C. See Lumb, P. B.
- Smith, J. F. See Elvidge, J. A.
- Smith, N. B. See Charnley, T.
- Smith, P. N. See Owen, L. N.
- Smith, T. B., White, C. A., Woodward, P., and Wyatt, P. A. H., the use of the Spekker photo-electric absorptiometer for the determination of pH, 3848.
- Smith, T. D., amorphous carbon, 923.
- Smith, W. R. See Haworth, R. D.
- Smyth, I. F. B. See Crawford, M.
- Soliman, G., and Farid, M. K., constituents of the leaves of *Psidium guaijava*, L. Part I. Psidiolic acid, 134.
- Somerville, A. R. See Cook, J. W.
- Sondheimer, F. See Ahmad, R.
- Soulal, M. J. See McHatton, L. P.
- Sowden, R. G. See Longuet-Higgins, H. C.
- Sowler, J. See Holliday, A. K.
- Spensley, P. C. See King, F. E.
- Spice, B. See Staveley, L. A. K.
- Spicer, G. S., and Strickland, J. D. H., compounds of curcumin and boric acid. Part I. The structure of rosocyanin. Part II. The structure of rubrocurcumin, 4644, 4650.
- Spicer, G. S. See also Bellamy, L. J.
- Spooner, D. F. See Osbond, J. M.
- Spiestersbach, D. See Akher, M. A.
- Spring, F. S. See Anderson, R. C., Bentley, H. R., Berrie, A. H., Budziarek, R., Gallagher, J. J., McEwan, J. A., McKean, L. C., Martin, W. F., and Musgrave, O. C.
- Srivastava, R. S. See Saunders, L.
- Stacey, M. See Allerton, R., Bebbington, A., Bourne, E. J., Buxton, M. W., Johnson, L. V., Jones, A. S., Laland, S. G., and Shaifzadeh, F.
- Stafford, W. H., two enol betaines of the indane-pyridinium series, 580.
- Stafford, W. H. See also Campbell, N.
- Standing, H. A. See Head, F. S. H.
- Stansfield, E. See Peak, D. A.
- Stark, J. See Musgrave, O. C.
- Stanton, R. S. See Bailey, A. S.
- Staveley, L. A. K., and Spice, B., solutions of alcohols in non-polar solvents. Part II. Volume relations in dilute solutions of primary alcohols in benzene, heptane, and cyclohexane, 406.
- Staveley, L. A. K. See also Thomas, D. G.
- Stedman, R. J. See Kenner, G. W.
- Steel, D. K. V. See Abadir, B. J.
- Stephen, A. M., the periodate oxidation of pinitol, 738.
- Stephen, A. M. See also Pugh, W.
- Stephen, W. I. See Belcher, R.
- Stephenson, E. F. M., heterocyclic nitrogen compounds. Part III. The condensation of phthalaldehydic acids and diamines, 5024.
- Stephenson, E. F. M. See also Hatt, H. H.
- Stephenson, O. See Feitelson, B. N.
- Stern, E. S. See Hall, R. H.
- Stevens, H. M. See Pollard, F. H.
- Stevens, R. See Clemo, G. R.
- Stevens, T. S. See Ash, A. S. F., and Bamford, W. R.
- Stevenson, R. See Anderson, R. C., and Budziarek, R.
- Stewart, D. G. See Clar, E.
- Stewart, F. H. C. See Crawford, M.
- Stonehill, H. I. See Gill, R., and Kaye, R. C.
- Stove, E. R. See Forss, D. A.
- Strain, R. N. C. See Bassett, H.
- Strauss, H. E. See Arcus, C. L.
- Strickland, J. D. H. See Bellamy, L. J., and Spicer, G. S.
- Stuart-Webb, I. A. See Patel, D. K.
- Stuart-Webb, J. See Hey, D. H.
- Stubbs, F. J. See Molera, M. J.
- Sturgeon, B. See Feitelson, B. N.
- Style, D. W. G., and Ward, J. C., the origins of the fluorescences obtained from formic acid and methylene iodide, 2125.
- Style, D. W. G. See also Dyne, P. J.
- Summers, G. H. R. See Hinkel, L. E., and Shoppee, C. W.
- Sutcliffe, F. K. See Bradley, W.
- Sutcliffe, L. H., and Walsh, A. D., the absorption spectrum of allene in the vacuum ultra-violet, 899.
- Sutin, N. See Sebba, F.
- Sutton, D. A. See Matic, M.
- Sutton, L. E. See Kofod, H.
- Swain, P. See Burstall, F. H.
- Swain, T. See Schofield, K.
- Swallow, A. J., the action of γ -radiation on aqueous solutions of cysteine, 1334.
- Swan, G. A. See Clemo, G. R., and Groves, L. H.
- Swedlund, B. E. See Robertson, P. W.
- Swift, S. D. See Crawford, J. W. C.
- Sykes, A., and Tatlow, J. C., trifluoromethylbenzimidazoles, 4078.
- Sykes, K. W., the reaction between ferric and iodide ions. Part II. The influence of ionic association, 124.
- Sykes, K. W. See also Fudge, A. J.

T.

- Tadros, W., and Kamel, M., a preliminary study of the main polysaccharide of *Lupinus termis* seeds, 4532.
- Tadros, W., and Latif, A., triphenylethylenes. Part III., 3823.
- Tatlow, C. E. M. See Bourne, E. J.
- Tatlow, J. C., and Worthington, R. E., the reactions of highly fluorinated organic compounds. Part I. The preparation and reactions of some chloroundecafluorocyclohexanes, 1251.
- Tatlow, J. C. See also Barlow, G. B., Bourne, E. J., Buxton, M. W., Johnson, L. V., and Sykes, A.
- Taylor, D., the system $\text{MnSO}_4\text{-H}_2\text{SO}_4\text{-H}_2\text{O}$.
- Taylor, D., and Bassett, H., the system $\text{Al}_2(\text{SO}_4)_3\text{-H}_2\text{SO}_4\text{-H}_2\text{O}$, 4431.
- Taylor, D., and Vincent, G. C., phase equilibria in sulphonic acid-water systems, 3218.
- Taylor, D. A. H., some reactions of sarverogenin, 4832.
- Taylor, D. A. H. See also Callow, R. K.
- Taylor, E. P., synthetic neuromuscular blocking agents. Part II. Bis(quaternary ammonium salts) derived from laudanosine. Part III. Miscellaneous quaternary ammonium salts, 142, 1309.
- some reactions of 5-aminoacridine and related compounds, 5048.
- Taylor, E. P., and Watts, G. E., the synthesis of some 5-alkyl-2-methylbenzoic acids, 1123.
- the Friedel-Crafts acetylation of *p*-tert.-butyltoluene, 5054.
- Taylor, H. F. W. See Heller, L.
- Taylor, P. E. See Skellon, J. H.
- Tebboth, J. A. See Miller, S. A.
- Tedder, J. M. See Bourne, E. J.
- Tester, D. A. See Kipling, J. J.
- Tetaz, J. R. See Cavill, G. W. K.
- Thain, E. M. See Baddiley, J., and Balfe, M. P.
- Theobald, R. S. See Nunn, A. J., and Schofield, K.
- Thirsk, H. R. See Maxwell, K. H.
- Thomas, B. R. See Barnes, C. S., and Brandt, C. W.
- Thomas, D. G., and Staveley, L. A. K., a study of the supercooling of drops of some molecular liquids, 4569.

- Thomas, *D. G.*, Staveley, *L. A. K.*, and Cullis, *A. F.*, hysteresis in the transitions in ammonium chloride, hexamminonickel nitrate, silver mercuri-iodide, hexachloroethane, and carbon tetrabromide, 1727.
- Thomas, *G. G.* See Davies, *C. W.*
- Thomas, *G. J.* See Peat, *S.*
- Thomas, *W. J. Q.*, force constants in polyatomic molecules, 2383.
- Thompson, *A. R.* See Burawoy, *A.*
- Thompson, *H. W.* See Short, *L. N.*
- Thompson, *R.*, the heat of formation of disodium methylphosphonate, 3292.
- Thompson, *R.* See also Addison, *C. C.*
- Thomson, *A. L.* See Packer, *J.*
- Thomson, *R. H.*, the reduction of juglone, 1822.
- Thomson, *R. H.* See also Bruce, *D. B.*
- Thomson, *S. J.* See Bell, *J.*
- Thornley, *M. B.* See Brand, *J. C. D.*
- Thrust, *A. M.* See Gerrard, *W.*
- Thurston, *J. P.*, and Walker, *J.*, 3 : 5-diamino-1-aryl-1 : 2 : 4-triazoles as potential antimalarials, 4542.
- Tiedt, *J.*, and Truter, *E. V.*, the components of wool wax. Part I. The aliphatic alcohols, 4628.
- Tietze, *H. R.* See Salmon, *J. E.*
- Timms, *R. N.* See Boardland, *M. P. V.*
- Tinson, *H. J.* See Ferguson, *J.*
- Tipper, *C. F. H.*, the effect of water on the decomposition of benzoyl peroxide, 2966.
- Todd, *A. R.* See Anand, *N.*, Andersen, *W.*, Birch, *A. J.*, Brown, *B. R.*, Brown, *D. M.*, Corby, *N. S.*, Elmore, *D. T.*, Forrest, *H. S.*, Johnson, *A. W.*, and Kenner, *G. W.*
- Tomlinson, *M. L.* See Milne, *A. H.*
- Tompkins, *F. C.* See Baker, *E. H.*
- Topham, *A. R.*, and White, *A. G.*, the reaction of mercuric and mercurous nitrates with formic acid, 105.
- Tourky, *A. R.*, and Khairy, *E. M.*, studies of some metal electrodes. Part IX. The temperature coefficients of the copper and antimony electrodes in solutions initially free from their ions; the mode of oxidation of these metals, 2626.
- Townsend, *R.* See Ducker, *E.*, and Hookway, *H. T.*
- Trappe, *G.* See Ramage, *G. R.*
- Tremaine, *J. F.* See Miller, *S. A.*
- Truter, *E. V.* See Tiedt, *J.*
- Tucker, *S. H.*, synthesis of fluoranthenes. Part IX. 3-Methylfluoranthene, 803.
- Tucker, *S. H.*, and Whalley, *M.*, synthesis of fluoranthenes. Part X. 10-Methylfluoranthene. Correction of its melting point, 3187.
- Tucker, *S. H.* See also Beaton, *J. M.*
- Turnbull, *J. H.* See Beech, *S. G.*
- Turner, *C.* See Burawoy, *A.*
- Turner, *E. E.*, and Turner, *L.*, compounds containing the 2 : 2 : 4-trimethylhexane skeleton. Part II., 1761.
- Turner, *E. E.* See also Beaven, *G. H.*, Bird, *R. F.*, and Hall, *D. M.*
- Turner, *L.* See Turner, *E. E.*
- Tweed, *W. T.* See Baker, *J. W.*
- Tyabji, *A. M.*, and Gibson, *C. S.*, gold imides, 450.
- Tyabji, *A. M.* See also Brain, *F. H.*
- Tye, *F. L.* See Gold, *V.*

U.

- Ubbelohde, *A. R.* See Cummings, *G. A. Mc. D.*, Nichol, *R. J.*, and Small, *N. J. H.*
- Ulbricht, *T. L. V.* See Baker, *W.*
- Urwin, *J. R.*, and West, *B.*, studies on bond type in certain cobalt complexes. Part III. The polarographic reduction of some cobalt inner-complex compounds, 4727.

V.

- Vallance, *D. G. M.* See Giles, *C. H.*
- Vaughan, *J.* See Ivory, *H. G.*, and Packer, *J.*
- Vernon, *C. A.* See De la Mare, *P. B. D.*
- Verzele, *M.*, structure of the hydrogenation product of lupulone, 1954.

- Verzele, *M.*, and Govaert, *F.*, humulinone : its alleged occurrence in hops, 3313.
- Vickery, *R. C.*, lanthanon complexes with ethylenediamine-tetra-acetic acid. Parts II and III., 421, 1895. separation of the lanthanons by ion exchange; a comparison of eluants, 4357.
- Vincent, *G. C.* See Taylor, *D.*
- Vining, *L. C.* See Johnson, *A. W.*
- Vogel, *A. I.*, Cresswell, *W. T.*, Jeffery, *G. H.*, and Leicester, *J.*, physical properties and chemical constitution. Part XXIV. Aliphatic aldoximes, ketoximes, and ketoxime *O*-alkyl ethers, *NN*-dialkylhydrazines, aliphatic ketazines, mono- and di-alkylaminopropionitriles, alkoxypropionitriles, dialkyl azodiformates, and dialkyl carbonates; bond parachors, bond refractions, and bond-refraction coefficients, 514.
- Vogel, *E.* See Raphael, *R. A.*
- Voss, *D.* See Baddeley, *G.*
- Vromen, *B. H.* See Dostrovsky, *I.*

W.

- Wadman, *W. H.*, some reactions of sugars catalysed by a cation-exchange resin, 3051.
- Wadman, *W. H.* See also Hough, *L.*
- Wagner, *H. M.* See Musgrave, *O. C.*
- Waight, *E. S.*, some observations on conjugation in sulphones, 2440.
- Waight, *E. S.* See also Bateman, *L.*, Braude, *E. A.*, and Moore, *C. G.*
- Wain, *A. E.* See Bentley, *K. W.*
- Waldron, *D. M.* See Edward, *J. T.*
- Walker, *J.* See Dyer, *F. J.*, Marshall, *J. R.*, Robins, *P. A.*, and Thurston, *J. P.*
- Walker, *T.* See Attenburrow, *J.*
- Waller, *G. T.* See Elks, *J.*
- Walls, *L. P.* See Caldwell, *A. G.*
- Walsh, *A. D.* See Sutcliffe, *L. H.*
- Warburton, *W. K.* See Baker, *W.*
- Ward, *E. R.*, and Day, *L. A.*, reactions of aromatic nitro-compounds with alkaline sulphides. Part IV. Disulphide formation, 398. the preferential reduction of nitro-groups in polynitro-compounds. Part V. 1 : 3 : 6-, 1 : 3 : 8-, and 1 : 4 : 5-Trinitronaphthalene, 4529.
- Ward, *J. C.* See Style, *D. W. G.*
- Wardlaw, *W.* See Bradley, *D. C.*
- Warne, *M. A.* See Bailey, *A. S.*
- Warren, *F. L.* See Dry, *L. J.*
- Warwick, *A. J.* See King, *F. E.*
- Wassermann, *A.* See Harkness, *M. L. R.*, and Mongar, *I. L.*
- Waters, *W. A.*, and Wickham-Jones, *C.*, the retardation of benzaldehyde autoxidation. Part II. A comparative study of the actions of *p*-cresol, *m*-2-xyleneol, and their oxidation products, 2420.
- Waters, *W. A.* See also Barker, *I. R. L.*, Dunn, *J. R.*, Ford, *M. C.*, Harris, *E. F. P.*, Lopez Aparicio, *F. J.*, Moore, *R. F.*, and Roitt, *I. M.*
- Watkins, *J. C.* See Anstee, *J. R.*
- Watkins, *T. I.*, trypanocides of the phenanthridine series. Part I. The effect of changing the quaternary grouping in dimidium bromide, 3059.
- Watkins, *T. I.* See also Fairfull, *A. E. S.*
- Watson, *R. D.*, some derivatives of 2 : 6-dihydroxybenzoic acid, 2940.
- Watts, *G. E.* See Taylor, *E. P.*
- Watts, *H.* See Eley, *D. D.*
- Watts, *T. W.* See Packer, *J.*
- Weale, *K. E.*, liquid-phase reactions at high pressures. Part VII. The polymerisation of 1 : 2-dichloroethylene, 2223.
- Webb, *M.* See Laland, *S. G.*
- Weedon, *B. C. L.* See Ahmad, *R.*, Braude, *E. A.*, Kierstead, *R. W.*, and Linstead, *R. P.*
- Weight, *D.* See Ollis, *W. D.*
- Weiss, *J.* See Rigg, *T.*
- Werner, *R. L.* See Angyal, *C. L.*

- West, B.**, studies on bond type in certain cobalt complexes. Part I. Exchange reactions. Part II. The constitution of cobalt complexes with salicylaldehyde anils, 3115, 3123.
- West, B.** See also **Urwin, J. R.**
- Weymouth, F. J.** See **Kenner, G. W.**
- Whalley, M.** See **Linstead, R. P.**, and **Tucker, S. H.**
- Whalley, W. B.** See **Broadbent, P.**, and **Phillipps, G. H.**
- Wheeler, T. S.** See **Lynch, H. M.**
- Whelan, W. J.** See **Peat, S.**
- Whiffen, D. H.** See **Barker, S. A.**, and **Randle, R. R.**
- Whitbread, E. G. G.** See **Gerrard, W.**
- White, A. G.** See **Sharp, J. A.**, and **Topham, A. R.**
- White, A. M.** See **Davies, A. G.**
- White, C. A.** See **Smith, T. B.**
- White, D. E.**, and **Zampatti, L. S.**, the chemistry of Western Australian plants. Part VII. Oleonic acid acetate from *Eucalyptus calophylla* bark, 5040.
- White, D. E.** See also **Anstee, J. R.**, and **Michael, M.**
- White, E. A. D.** See **Barrer, R. M.**
- White, E. N.** See **Greenhow, E. J.**
- Whitehead, J. K.**, and **Bentley, H. R.**, preparation and properties of some aliphatic sulphoximines, 1572.
- Whitehead, J. K.** See also **Cosgrove, D. J.**
- Whiting, M. C.** See **Armitage, J. B.**, **Cook, C. L.**, and **Eglinton, G.**
- Whittingham, G.** See **Littlejohn, R. F.**
- Wickham-Jones, C.** See **Dunn, J. R.**
- Wiggins, L. F.** See **Bourne, E. J.**, and **McSweeney, G. P.**
- Wiles, L. A.**, the polarographic reduction of hydroxy- and methoxy-antraquinones, 1358.
- Wilkins, R. G.** See **Chatt, J.**
- Wilkinson, I. A.** See **Bebbington, A.**
- Williams, A. F.**, inorganic chromatography on cellulose. Part XII. The quantitative determination of tantalum and niobium in complex minerals, ores, and synthetic materials, 3155.
- Williams, A. F.** See also **Burstable, F. H.**, and **Mercer, R. A.**
- Williams, G.**, and **Bardsley, H.**, kinetics of the interaction of hydrogen chloride with styrene in presence of stannic chloride, 1707.
- Williams, G.** See also **Bonner, T. G.**, and **Simkins, R. J. J.**
- Williams, G. H.** See **Augood, D. R.**, and **Hey, D. H.**
- Williams, J. F. A.** See **Chapman, N. B.**
- Williams, L. T. D.** See **Neale, E.**
- Williams, R. J.** See **Barton, D. H. R.**
- Williams, R. J. P.**, the stability of the complexes of the group IIA metal ions, 3770.
- Williams, R. J. P.** See also **Irving, H.**
- Williamson, J.** See **Keneford, J. R.**
- Wilshire, J. F. K.** See **Campbell, N.**
- Wilson, A. T.** See **Benstead, J. C.**, and **Slater, S. N.**
- Wilson, W.**, synthetic analgesics and related compounds. Part III. The aminoalkylation of phenyl-substituted acetones. Part V. 2-Imino-3:3-diphenylpyrrolidines, 6, 352-4.
- Wilson, W.**, and **Zu-Yoong Kyi**, synthetic analgesics and related compounds. Part IV. Mannich bases from phenyl-substituted acetones, 1321.
- Wilson, W.** See also **Beech, S. G.**
- Winter, E. R. S.** See **Graupner, K.**
- Wise, L. E.** See **Jones, J. K. N.**
- Withey, D. S.**, cyclic polymerisation of acetylene. Examination of the $C_{10}H_{10}$ fraction, 1930.
- Wood, D. J. C.** See **McSweeney, G. P.**
- Wood, G. A.** See **Burstable, F. H.**
- Wood, G. W.** See **Bladon, P.**, and **Henbest, H. B.**
- Wood, H. C. S.** See **Openshaw, H. T.**
- Wood, W. R.** See **Blumann, A.**
- Woodcock, D.** See **Skerrett, E. J.**
- Woodham, A. A.** See **Campbell, N.**
- Wooding, N. S.**, and **Higginson, W. C. E.**, anionic polymerisation. Part II. The acid-base character of anionic polymerisation. Part III. The polymerisation of styrene in liquid ammonia catalysed by potassium, 774, 1178.
- Wooding, N. S.** See also **Higginson, W. C. E.**
- Woods, G.** See **Henbest, H. B.**
- Woods, G. F.** See **Bladon, P.**, and **Henbest, H. B.**
- Woods, M. C.** See **Michael, M.**
- Woods, R. J.** See **Ahmad, R.**, and **Braude, E. A.**
- Woodward, P.** See **Smith, T. B.**
- Worth, C. V.** See **Freeman, H. C.**
- Worthington, R. E.** See **Tatlow, J. C.**
- Wright, J. W.** See **Bamford, W. R.**
- Wright, P. H.** See **Keneford, J. R.**
- Wyatt, P. A. H.** See **Smith, T. B.**
- Wylie, A. W.** See **Asker, W. J.**

X.

- Xuong, Ng. D.**, and **Buu-Hoi, Ng. Ph.**, potential chemical pituitary inhibitors of the polyarylethylene series, 3741.
- Xuong, Ng. D.** See also **Buu-Hoi, Ng. Ph.**

Y.

- Youhotsky, I.** See **Freeman, H. C.**
- Young, G. T.** See **Keneford, J. R.**, **Le Quesne, W. J.**, and **Rowlands, D. A.**
- Young, J. T.** See **Dippy, J. F. J.**

Z.

- Zaheer, S. H.** See **Bhargava, P. M.**
- Zampatti, L. S.** See **White, D. E.**
- Zealley, J.** See **Grove, John Frederick.**
- Zealley, T. S.** See **Baker, W.**
- Zobrist, R.** See **Percival, E. E.**
- Zu-Yoong Kyi.** See **Wilson, W.**