

ADDITIONS TO THE LIBRARY OF THE CHEMICAL
SOCIETY DURING THE YEAR 1931.

ABDERHALDEN, EMIL. [Editor.] Handbuch der biologischen Arbeitsmethoden. Abt. I. Chemische Methoden. Teil 2, II Hälfte, Heft 8. Berlin 1931. pp. 2971 to 3078.

ACHARYA, C. NARASIMHA. The relation between growth and intake of nutrients in the Cholam plant. (From the *Madras Agric. J.*, 19.)

ADDIS, ROBINA. See SINGER, DOROTHEA WALEY.

AEBY, JULES. Dangerous goods. 1st supplement. Anvers 1930. pp. 96. (Reference.)

AERONAUTICAL RESEARCH COMMITTEE. Reports and Memoranda. Nos. 1037, 1285, and 1287. Mechanical properties of pure magnesium and certain magnesium alloys in the wrought state. By SIDNEY LEONARD ARCHBUTT [and others]. London 1926-30. pp. 13, 9, 16. ill.

— — No. 1318. Detonation and lubricating oil. By R. O. KING and H. MOSS. London 1930. pp. 23. ill.

— — No. 1324. Experiments on the ignition of gases by sudden compression. By R. W. FENNING and F. T. COTTON. London 1930. pp. 43. ill.

AIYAR, G. K. [and others]. Notes on the Burmese species of plants yielding chaulmugra oil. (*Burma Forest Bulletin*, No. 21.) Rangoon 1930. pp. iv + 22. ill.

AKEN, JOHANNES STEPHANUS ANTONIUS JOSEPH MARIA VAN. Kalk-suiker. Melasseontsuikeren met kalk. Kalk-suiker als kolloïdaal systeem. Delft 1930. pp. 184. ill.

ALBERTS, ELSA (MARIA). Über die Einwirkung von Gasströmen wie Kohlensäure, Ammoniak, Salzsäure, Chlor, Brom, Tetrachlor-kohlenstoff auf Sulfate und Sulfide. Heidelberg 1920. pp. 49.

ALEXANDER, LYLE T. See UNITED STATES. *Department of Agriculture*. Technical Bulletin No. 212.

ALLSOP, G. See MINES DEPARTMENT. *Safety in Mines Research Board*. Paper No. 67.

ALTPETER, JULIUS. Das Hexamethylentetramin und seine Verwendung. Halle (Saale) 1931. pp. vi + 178. ill.

AMERICAN PUBLIC HEALTH ASSOCIATION. Committee on Lead Poisoning. Report. New York 1930. pp. 37.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS. Georges Claude, 50th anniversary medallist from France. (From the *Official Program 50th Anniv. A.S.M.E.*, 1930.)

- ANDERSON, ANNIE. *See* SINGER, DOROTHEA WALEY.
- ANDERSON, M. S. *See* UNITED STATES. *Department of Agriculture.* Technical Bulletin No. 228.
- ANDREJEW, NICOLAUS. Theoretische und experimentelle Untersuchungen über den Einfluss der Temperatur auf die Dispersion des Lichtes. Basel 1909. pp. 43.
- ANTHONY, D. J., JACKSON, FREDERICK WILLIAM, and JOYCE, THOMAS GOODE. "Black Gut." (From the *Vet. Record*, 1931, 11.)
- ARCHBUTT, SIDNEY LEONARD. *See* AERONAUTICAL RESEARCH COMMITTEE. Reports and Memoranda, Nos. 1037, 1285, and 1287.
- ARGENTINA. *Obras Sanitarias de la Nación.* Métodos de análisis. 2nd edition. Buenos Aires 1929. pp. 108. ill.
- ARGYLE, W. R. *See* UNITED STATES. *Department of Commerce.* Bureau of Mines. Bulletin 302.
- ARKEL, A. E. VAN, and BOER, J. H. DE. Chemische Bindung als elektrostatische Erscheinung. Translated by LI KLEMM and WILHELM KLEMM. Leipzig 1931. pp. xx + 320. ill.
- ARKEL, CORNELIA GERARDA VAN. *Oleum Jecoris Aselli cum Jodeto ferroso.* Amsterdam 1929. pp. viii + 46.
- ARMSTRONG, EDWARD FRANKLAND, and ARMSTRONG, K. F. The glycosides. London 1931. pp. viii + 123.
- ARMSTRONG, K. F. *See* ARMSTRONG, EDWARD FRANKLAND.
- ASSOCIATION OF BRITISH CHEMICAL MANUFACTURERS. The Dyestuffs Act. Views of the chemical industry. London [1930]. pp. 24.
- — — An index to Acts of Parliament and Statutory Rules and Orders affecting the chemical industry. London 1931. pp. 24.
- AUSTRALIA, COMMONWEALTH OF. *Council for Scientific and Industrial Research.* Bulletin No. 49. Factors affecting the mineral content of pastures. By A. E. V. RICHARDSON, H. C. TRUMBLE, and R. E. SHAPTER. Melbourne 1931. pp. 47. ill.
- — — Bulletin No. 50. The poisonous action of ingested saponins. By ALFRED JAMES EWART. Melbourne 1931. pp. 28. ill.
- — — Pamphlet No. 18. The influence of frequency of cutting on the productivity, botanical and chemical composition, and the nutritive value of "natural" pastures in Southern Australia. By J. GRIFFITHS DAVIS and ARTHUR HENRI SIM. Melbourne 1931. pp. 28. ill.
- — — Pamphlet No. 20. The identification of wood by chemical means. Part I. By H. E. DADSWELL. Melbourne 1931. pp. 16.
- — — Pamphlet No. 21. The density of Australian timbers. A preliminary study. By H. E. DADSWELL. Melbourne 1931. pp. 16. ill.

- AUSTRALIA, COMMONWEALTH OF. *Council of Scientific and Industrial Research.* Pamphlet No. 22. The chemistry of Australian timbers. Part I. A study of the lignin determination. By W. E. COHEN and H. E. DADSWELL. Melbourne 1931. pp. 27. ill.
- AZADIAN, A. See EGYPT. Département de l'Hygiène Publique.
- BACHRACH, MAX. Fur: a practical treatise. London 1930. pp. xiv + 677. ill.
- BAILEY, LORIN H. See UNITED STATES. *Department of Agriculture.* Circular No. 138.
- BAKER, JOHN WILLIAM. Natural terpenes. London 1930. pp. x + 169.
- BAKES, WILLIAM EDGAR. See SCIENTIFIC AND INDUSTRIAL RESEARCH. *Fuel Research.*
- BARANGER, P.-M. Contribution a l'étude des propriétés physico-chimiques et thérapeutiques des acides aryl-arsiniques. Paris 1931. pp. xiv + 202. ill.
- BARKER, THOMAS VIPOND. Systematic crystallography: an essay on crystal description, classification and identification. London 1930. pp. xii + 115. ill.
- BARR, GUY. A monograph of viscometry. London 1931. pp. xiv + 318. ill.
- BARY, PAUL. Où en est l'électrochimie? Paris 1931. pp. viii + 200. ill.
- BASS, LAWRENCE W. See LEVENE, PHOEBUS AARON.
- BASSETT, HENRY NORMAN. The chemical technology of steam-raising plant. London 1931. pp. viii + 240. ill.
- BECKURTS, HEINRICH. Die Methoden der Massanalyse. 2nd edition. Edited by RICHARD BERG and RICHARD DIETZEL. Braunschweig 1931. pp. x + 730. ill.
- BELL, [SIR WILLIAM JAMES]. Sale of food and drugs. 8th edition. By R. A. ROBINSON. London 1931. pp. xxvi + 300 + 34.
- BENEDICKS, CARL, and LÖFQUIST, HELGE. Non-metallic inclusions in iron and steel. London 1930. pp. xii + 311. ill.
- BERG, RICHARD. See BECKURTS, HEINRICH.
- BERLINER, J. F. T. See UNITED STATES. *Department of Commerce.* Bureau of Mines. Bulletin 327.
- BERTHELOT, MARCELIN. Centenaire 1827-1927. Paris 1929. pp. 709. ill. (Reference.)
- BERTIN, A. Principaux emplois chimiques du bois. Paris 1924. pp. vi + 126. ill.
- BEYTHIEN, ADOLF. Laboratoriumsbuch für den Nahrungsmittelchemiker. Dresden 1931. pp. xxiv + 589. ill.
- BIANCHI, CALISTO. Celluloseesterlacke. German edition by ADOLF WEIHE. Berlin 1931. pp. xii + 329. ill.

BLACKTIN, SAMUEL CYRIL. *See MINES DEPARTMENT. Safety in Mines Research Board.* Paper No. 71.

BLUMBERGER, JOSÉ STEPHEN PETRUS. *Studies in de katalytische ontleding van diazoverbindingen.* Delft 1929. pp. x + 167. ill.

BOARD OF EDUCATION. *Educational Pamphlets, No. 85. Report by H.M. Inspectors on the provision of instruction in applied chemistry in technical schools and colleges in England and Wales.* London 1931. pp. 51.

BOARD OF TRADE. *Dyestuffs Industry Development Committee. Report on the present position and development of the dyestuffs manufacturing industry in Great Britain.* London 1930. pp. iv + 88.

BOER, J. H. DE. *See ARKEL, A. E. VAN.*

BOER, SIEBE RIEKELE DE. *Respiration of Phycomyces.* (From the *Rec. Trav. bot. néerl.*, 1928, 25.)

BONNELL, D. G. R. *See SCIENTIFIC AND INDUSTRIAL RESEARCH. Building Research.*

BORGSTROM, PARRY, BOST, R. W., and BROWN, D. F. *Bibliography of organic sulfur compounds (1871—1929).* pp. vi + 187. (Reference.)

Bos, ABRAHAM ARIE. *Bijdrage tot de kennis van de lignosulfozuren.* Amsterdam 1930. pp. x + 88. ill.

BOST, R. W. *See BORGSTROM, PARRY.*

BOTTLER, MAX. *Bleich-, Reinigungs-, Wasch-, Detachiermittel, Bleichverfahren und Bleichapparate der Neuzeit für Gespinstfasern und Gewebe.* 2nd edition. Wittenberg 1924. pp. 216. ill.

BRACEWELL, MARY F. *See MEDICAL RESEARCH COUNCIL. Special Report Series, No. 146.*

BRADFORD TECHNICAL COLLEGE. *Journal of Research.* Vol. I, etc. Bradford 1930 +. (Reference.)

BRANDÃO, ALVARO SOARES. *Trabalhos praticos de chimica.* S. Paulo (1930). pp. 314. ill.

BRIEGLEB, G., and WOLF, K. L. *Lichtzerstreuung, Kerreffekt und Molekülstruktur.* (Fortschritte der Chemie, Physik und physikalischen Chemie, Vol. XXI.) Berlin 1931.

BRIGGS, DENNIS BROOK. *Chemical change.* London 1931. pp. viii + 166. ill.

BRISCOE, HERMAN T. *Qualitative chemical analysis: principles and methods.* New York 1931. pp. vi + 279. ill.

BRITISH ENGINEERING STANDARDS ASSOCIATION. *British standard specification for the sampling and analysis of coal for export.* London 1930. pp. 34. ill.

— *Report on the sampling of small fuel up to 3 in. embodying some general principles of sampling.* By E. S. GRUMELL and A. C. DUNNINGHAM. London 1930. pp. 53. ill.

BRITISH SCIENCE GUILD. Science and modern industry. By SIR WILLIAM JACKSON POPE. Being the 6th annual Norman Lockyer lecture. London 1930. pp. 19.

BRITTON, HUBERT THOMAS STANLEY. Chemistry, life and civilisation. A popular account of modern advances in chemistry. London 1931. pp. viii + 248. ill.

BROWN, D. F. *See* BORGSTROM, PARRY.

BROWN, GEORGE GRANGER. The volatility of motor fuels. (*Univ. Michigan Engineering Research Bulletin No. 14*). Ann Arbor 1930. pp. viii + 299. ill.

BRYAN, J. M. *See* SCIENTIFIC AND INDUSTRIAL RESEARCH. *Food Investigation*.

BURGESS, MAURICE JOHN. *See* MINES DEPARTMENT. *Safety in Mines Research Board*. Papers Nos. 62 and 70.

BURRIDGE, L. W. *See* SCIENTIFIC AND INDUSTRIAL RESEARCH. *Building Research*.

BUSVOLD, NILS. Ueber die quantitative Bestimmung, sowie Trennung von Chlor und Chlorwasserstoff in Gasgemischen. Zürich-Selnau 1909. pp. 76. ill.

BYERS, HORACE G. *See* UNITED STATES. *Department of Agriculture*. Technical Bulletin Nos. 214, 228, and 232.

BYGDÉN, ARTUR. Silicium als Vertreter des Kohlenstoffs organischer Verbindungen. Uppsala 1916. pp. viii + 189.

CANADA. *Department of the Interior*. National Development Bureau. The ceramic industry of Canada with special reference to the manufacture of white ware. Ottawa 1931. pp. 46. [In mimeograph form.]

CANNON, JOHN Q., JR. *See* UNITED STATES. *Department of Commerce*. Bureau of Standards. Miscellaneous Publication No. 110.

CAVEN, ROBERT MARTIN, and LANDER, GEORGE DRUCE. Systematic inorganic chemistry from the standpoint of the periodic law. London 1930. pp. xviii + 510. ill.

CHADWICK, JAMES. Radioactivity and radioactive substances. 3rd edition. London 1931. pp. xii + 116. ill.

— *See* RUTHERFORD, LORD.

CHALON, PAUL FRÉDÉRIC. Les explosifs modernes. 3rd edition. Paris 1911. pp. iv + 789. ill.

CHAMOT, ÉMILE MONNIN, and MASON, CLYDE WALTER. Handbook of chemical microscopy. Vol. II. Chemical methods and inorganic qualitative analysis. New York 1931. pp. x + 411. ill.

CHARTROU, JEAN J. Pétroles naturel et artificiels. Paris 1931. pp. iv + 206. ill.

CHATTERJEE, N. N. On the necessity of standardising a method for the proximate analysis of coal in India. (From the *Q.J. Geol. Min. Met. Soc. India*, 1931, 3.)

CHEMICAL ENGINEERING AND CHEMICAL CATALOGUE. 7th edition. Edited by DUDLEY MAURICE NEWITT. London [1931]. pp. 364 + lix. ill. (Reference.)

CHEMIKER-KALENDER 1930. Edited by I. KOPPEL. Year LI. 3 parts [in 2 vols.]. Berlin 1930. pp. viii + 73, iv + 678, iv + 634. ill. (Reference.)

CHEMISCH-TECHNISCHE REICHSANSTALT. Jahresbericht VIII, 1929, etc. Berlin 1930 +. (Reference.)

CHESNEAU, GABRIEL. See VENNIN, L.

CHIH-CH'ANG, LI. The travels of an alchemist. Translated by ARTHUR WALEY. London 1931. pp. xii + 166. ill.

CHIKASHIGE, MASUMI. Anniversary volume . . . by his pupils in celebration of his sixtieth birthday. Kyoto 1930. pp. x + 348. ill.

CHITTENDEN, RUSSELL HENRY. The development of physiological chemistry in the United States. (American Chemical Society Monograph Series.) New York 1930. pp. 427.

CHRISTELOW, JOSEPH WILLIAM. See KÜHL, HANS.

CLAUDE, GEORGES. See AMERICAN SOCIETY OF MECHANICAL ENGINEERS.

CLAXTON, G. See HOFFERT, WILFRED HERMANN.

COCHRANE, J. A. Lavoisier. London 1931. pp. xiv + 264. ill.

COHEN, BARNETT, and PREISLER, PAUL W. Studies on oxidation-reduction. XVI. The oxazines: Nile blue, brilliant cresyl blue, methyl Capri blue, and ethyl Capri blue. (*U.S. Public Health Reports*, 1931, Supplement No. 92.)

COHEN, W. E. See AUSTRALIA, COMMONWEALTH OF. Council for Scientific and Industrial Research. Pamphlet No. 22.

CONTI, PRINCE PIERO GINORI. Il vetro per l'ottica in Italia. (From the *Atti Soc. Colombaria*, 1930-31.) ill.

COOKE, S. R. B. See DE VANEY, F. D.

COPEMAN, P. R. v. d. R. See SOUTH AFRICA, UNION OF. Department of Agriculture. (Division of Chemistry Series, Nos. 114 and 115.)

CORBIÈRE, JACQUES. Sur la fixation des matières grasses émulsionnées par les fibres textiles. Lyon 1931. pp. x + 125. ill. (Two copies.)

COTTON, F. T. See AERONAUTICAL RESEARCH COMMITTEE. Reports and Memoranda. No. 1324.

COWARD, HUBERT FRANK. See UNITED STATES. Department of Commerce. Bureau of Mines. Bulletin 279.

- COYLE, V. *See JACOB, A.*
- CRAWFORD, A. *See SCIENTIFIC AND INDUSTRIAL RESEARCH. Fuel Research.*
- CRONSHAW, HARRY BRENNAN. *See FOOD INDUSTRIES MANUAL.*
- CURTMAN, LOUIS J. Qualitative chemical analysis from the standpoint of the laws of equilibrium and the ionization theory. New York 1931. pp. xii + 539. ill.
- DACHNOWSKI-STOKES, A. P. *See UNITED STATES. Department of Agriculture.* Circular No. 167.
- DADSWELL, H. E. *See AUSTRALIA, COMMONWEALTH OF. Council for Scientific and Industrial Research.* Pamphlets Nos. 20, 21, and 22.
- DARWIN, CHARLES GALTON. The new conceptions of matter. London 1931. pp. viii + 192. ill.
- DAVENPORT, SARA J. *See SAYERS, R. R.*
- DAVIS, J. GRIFFITHS. *See AUSTRALIA, COMMONWEALTH OF. Council for Scientific and Industrial Research.* Pamphlet No. 18.
- DAVIS, RAYMOND. *See UNITED STATES. Department of Commerce.* Bureau of Standards. Miscellaneous Publication No. 114.
- DEANS, WINIFRED M. *See DEBYE, PETER.*
- DEBYE, PETER. [Editor.] Molekülstruktur. Leipziger Vorträge 1931. Leipzig 1931. pp. viii + 197. ill.
- The dipole moment and chemical structure. Translated by WINIFRED M. DEANS. London 1931. pp. x + 134. ill.
- DENINA, ERNESTO, and FRATES, ARTURO. Esperienze sulle caratteristiche di funzionamento dell'accumulatore a piombo. (From *L'Energia Elettrica*, 1931, 8.)
- DENNY, E. H. *See UNITED STATES. Department of Commerce.* Bureau of Mines. Bulletin 317.
- DE VANNEY, FRED D. *See UNITED STATES. Department of Commerce.* Bureau of Mines. Bulletin 312.
- DE VANNEY, FRED D., and COOKE, S. R. B. Laboratory concentration of the Missouri iron ores of Iron Mountain and Pilot Knob. (From the *Bull. Sch. Min. Met. Univ. Missouri*, 1928, 11.) ill.
- DHAR, NIL RATAN. The chemical action of light. London 1931. pp. xiv + 512. ill.
- DICKHAUS, GUSTAV. Einfluss der Temperatur auf die Leitfähigkeit von Elektrolyten in wässriger Lösung. Bonn 1912. pp. 40.
- DIETERLE, HUGO. *See RIJN, JACOBUS JOSEPH LOUIS VAN.*
- DIETZEL, RICHARD. *See BECKURTS, HEINRICH.*
- DOBBIN, LEONARD. *See SCHEELE, CARL WILHELM.*
- DOORN, NICOLAAS WILHELMUS. Absolute intensiteitsmetingen in het spectrum van chromosfeer en corona der zon, gedurende de totale verduistering op 29 Juni 1927. Amsterdam 1929. pp. viii + 53. ill.

- DRUCKER, CARL. *See OSTWALD, [WILHELM].*
- DRUMMOND, JACK CECIL. *See EMPIRE MARKETING BOARD.*
- DUBSKY, J. V., and RABAS, A. Contribution à l'étude de la faculté de la glycocolle de former des sels. (*Publ. Fac. Sci. Univ. Masaryk*, 1930, No. 123.) [In Czechoslovakian. French summary.]
- DUNNINGHAM, A. C. *See BRITISH ENGINEERING STANDARDS ASSOCIATION.*
- DUNSTAN, ALBERT ERNEST. *See INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND.*
- DURRANS, THOMAS HAROLD. Solvents. (*Monographs on Applied Chemistry.*) 2nd edition. London 1931. pp. xvi + 180. ill.
- EDGCOMBE, L. J. *See SCIENTIFIC AND INDUSTRIAL RESEARCH. Fuel Research.*
- EDGINGTON, GLEN. *See UNITED STATES. Department of Agriculture.* Technical Bulletin No. 229.
- EGYPT. Département de l'Hygiène Publique. Notes et Rapports des Laboratoires. No. 7. Les eaux d'Égypte. 3 vols. By A. AZADIAN. Cairo 1930. pp. xxxviii + 523 + 33 plates. ill.
- EIBNER, ALEXANDER. Das Oeltrocknen ein kolloider Vorgang aus chemischen Ursachen. Berlin (1930). pp. 242. ill.
- ELLINGHAM, HARRY JOHANN THOMAS. *See MÜLLER, ERICH.*
- ELLIS, CARLETON. Hydrogenation of organic substances including fats and fuels. 3rd edition. New York 1930. pp. xxiv + 986. ill.
- ELLIS, CHARLES DRUMMOND. *See RUTHERFORD, LORD.*
- ELVOVE, ELIAS. *See SMITH, MAURICE I.*
- EMLEY, W. E. *See UNITED STATES. Department of Commerce.* Bureau of Standards. Miscellaneous Publication No. 112.
- EMPIRE MARKETING BOARD. The relative values of cod liver oils from various sources. By JACK CECIL DRUMMOND and THOMAS PERCY HILDITCH. London 1930. pp. 129.
- EVANS, EDWARD VICTOR. *See SOUTH METROPOLITAN GAS COMPANY.*
- EWART, ALFRED JAMES. *See AUSTRALIA, COMMONWEALTH OF. Council for Scientific and Industrial Research.* Bulletin No. 50.
- FAJANS, KASIMIR. Radioelements and isotopes : chemical forces and optical properties of substances. New York 1931. pp. x + 125. ill.
- FARADAY, MICHAEL. *See HADFIELD, SIR ROBERT ABBOTT.*
- FARADAY SOCIETY. Colloid science applied to biology. A general discussion. London 1930. pp. iv, 663 to 865. ill.
- FARBE UND LACK. Centralblatt der deutschen Farben- und Lackindustrie. Anzeiger für die chemische Industrie. Hannover 1931 +. (*Reference.*)

FARBEN-CHEMIKER, DER. Zeitschrift über Herstellung und Gewinnung von Farblacken, Lackfarben, Erdfarben, Spezialfarben und Lacken usw. Year II, etc. Berlin 1931 +. (Reference.)

FAUST, GEORGE T. Notes on crystal etchings. (From the *Bull. Wagner Inst. Sci.*, 1930, 5.)

FEIGL, FRITZ. Qualitative Analyse mit Hilfe von Tüpfelreaktionen. Theoretische Grundlagen und praktische Ausführung. Leipzig 1931. pp. xii + 387. ill.

FEITKNECHT, WALTER. Über topochemische Umsetzungen fester Stoffe in Flüssigkeiten. (Fortschritte der Chemie, Physik und physikalischen Chemie, Vol. XXI.) Berlin 1930.

FENNING, R. W. See AERONAUTICAL RESEARCH COMMITTEE. Reports and Memoranda. No. 1324.

FEUSTEL, IRVIN C. See UNITED STATES. *Department of Agriculture*. Technical Bulletin No. 214.

FIELDING, W. L. See PARKINSON, S. T.

FIELDNER, A. C. See UNITED STATES. *Department of Commerce*. Bureau of Mines. Technical Paper 479.

FINDLAY, ALEXANDER. Practical physical chemistry. 5th edition. London 1931. pp. xii + 312. ill.

FISCHER, FREDERICK KAPP. An investigation of the magnetic and electrical properties of some iron chromium alloys. (*Rensselaer Poly. Inst. Bull., Eng. Sci. Ser.* No. 28.) 1930. pp. 32. ill.

FLORENCE, GABRIEL. Contribution chimique à l'étude de la narcose provoquée. Lyon 1928. pp. 97.

FLURY, FERDINAND, and ZERNIK, FRANZ. Schädliche Gase, Dämpfe, Nebel, Rauch- und Staubarten. Berlin 1931. pp. xii + 637. ill.

FOOD INDUSTRIES MANUAL. A technical and commercial compendium on the manufacture, preserving, packing and storage of all food products. Edited by HARRY BRENNAN CRONSHAW. London (1931). pp. 399. ill. (Reference.)

FOOD TECHNOLOGY. Vol. I, etc. London 1931 +. (Reference.)

FORBES, J. J. See UNITED STATES. *Department of Commerce*. Bureau of Mines. Mines Circular 33.

FOSTER, MARY LOUISE. Life of Lavoisier. (Smith College Monographs, No. 1.) Northampton, Mass. 1926. pp. viii + 72.

FRANCK, H. HEINRICH, MAKKUS, W., and JANKE, F. Der Kalkstickstoff in Wissenschaft, Technik und Wirtschaft. (Sammlung, New Series, Vol. I.) Stuttgart 1931. pp. xvi + 213. (Reference.)

FRASER, RONALD G. J. Molecular rays. Cambridge 1931. pp. xiv + 204. ill.

FRASER, THOMAS. See UNITED STATES. *Department of Commerce*. Bureau of Mines. Bulletin 300.

*

- FRADES, ARTURO. *See* DENINA, ERNESTO.
- FRAZIER, W. H. *See* SMITH, MAURICE I.
- FRIEND, JOHN NEWTON. A text-book of inorganic chemistry. Vol. VII. Part ii. Sulphur, selenium and tellurium. By REECE HENRY VALLANCE, DOUGLAS FRANK TWISS, and ANNIE ROBERTS RUSSELL. London 1931. pp. xxviii + 420. ill. (Two copies.)
- FUKUSHIMA, IKUZO, and HORIO, MASAO. Spectroscopic and photochemical research on the diazo-compounds, etc. (From the *Mem. Coll. Eng. Kyōto*, 1931, 6.)
- FURNAS, C. C. *See* UNITED STATES. *Department of Commerce.* Bureau of Mines. Technical Paper 476.
- GABILLION, ROBERT. Soies artificielles et matières plastiques. Paris 1931. pp. iv + 204. ill.
- GAINES, J. M., Jr. *See* UNITED STATES. *Department of Commerce.* Bureau of Mines. Bulletin 308.
- GALLOWAY, A. E. *See* UNITED STATES. *Department of Commerce.* Bureau of Mines. Technical Paper 479.
- GANDRUD, B. W. *See* UNITED STATES. *Department of Commerce.* Bureau of Mines. Bulletin 312.
- GEISLER, HERMANN. Zur anomalen Dispersion des Lichtes in Metallämpfen. Leipzig 1909. pp. 29. ill.
- GENERAL MEDICAL COUNCIL. *Pharmacopœia Commission.* Reports of sub-committees. 1—8. London 1930–31.
- GEORG, ALFRED. *See* VOGEL, HANS.
- GIBSON, K. S. *See* UNITED STATES. *Department of Commerce.* Bureau of Standards. Miscellaneous Publication No. 114.
- GILDEMEISTER, EDUARD, and HOFFMANN, FRIEDRICH. Die ätherischen Öle. 3rd edition. Vol. III and Register. Miltitz bei Leipzig 1931. pp. xxxii + 1072. 124. ill.
- GLASSTONE, SAMUEL. Recent advances in physical chemistry. London 1931. pp. viii + 470. ill.
- GOARD, A. K. Chemical composition : an account of the methods by which atomic weights and molecular formulæ have been determined. London 1931. pp. viii + 304.
- GRAY, A. N. Phosphates and superphosphates. London 1930. pp. 275.
- GRAY, JAMES. A text-book of experimental cytology. Cambridge 1931. pp. x + 516. ill.
- GREENWALD, H. P. *See* UNITED STATES. *Department of Commerce.* Bureau of Mines. Technical Paper 464.
- GREGORY, JOSHUA CRAVEN. A short history of atomism from Democritus to Bohr. London 1931. pp. viii + 258.
- GRIMSHAW, H. C. *See* MINES DEPARTMENT. *Safety in Mines Research Board.* Paper No. 69.

GROVE, G. W. *See UNITED STATES. Department of Commerce.*
Bureau of Mines. Miners Circular 33.

GRUMELL, E. S. *See BRITISH ENGINEERING STANDARDS ASSOCIATION.*

GUGGENHEIM, MORRIS. *See UNITED STATES. Department of Commerce.* Bureau of Mines. Technical Paper 472.

HACKNEY, NORMAN. The quantitative analysis of inorganic materials. London 1930. pp. xvi + 378. ill.

HADFIELD, SIR ROBERT ABBOTT. Faraday and his metallurgical researches: with special reference to their bearing on the development of alloy steels. London 1931. pp. xx + 329. ill.

HAGIYA, MASAMI. *See IMAI, HIROSHI.*

HALL, R. E. *See UNITED STATES. Department of Commerce.*
Bureau of Mines. Technical Paper 479.

HAMBURGER, RUDOLF JACOBUS. Over den invloed van insuline op de permeabiliteit der weefsels voor glucose. Groningen 1930. pp. viii + 55.

HARRISON, A. W. C. The manufacture of lakes and precipitated pigments. London (1930). pp. xvi + 274. ill.

HARTOG, SIR PHILIP. Joseph Priestley and his place in the history of science. (From the *Proc. Roy. Inst.*, 1931.)

HARVEY, ELLERY H., and SCHUETTE, H. A. The sulfur monochloride reaction of the fatty oils. II-IV. (From the *Trans. Wisconsin Acad. Sci.*, 1931, 26.)

HARVEY, R. B. *See MAXIMOV, N. A.*

HECHT, (RICHARD) LEOPOLD. Über die Natur des Sulfammoniums und ein Beitrag zur spektrometrischen Untersuchung eines Gemisches mehrerer lichtabsorbierender Stoffe. (Berlin) 1910. pp. 58. ill.

HELLER, GUSTAV. Über Isatin, Isatyd, Dioxindol und Indophenin. (Sammlung, New Series. Vol. I.) Stuttgart 1931. pp. 173. (Reference.)

HERTY, C. H., Jr. *See UNITED STATES. Department of Commerce.*
Bureau of Mines. Bulletin 308.

HESS, W. C. *See SULLIVAN, MICHAEL XAVIER.*

HICKS, D. *See SCIENTIFIC AND INDUSTRIAL RESEARCH. Fuel Research.*

HILDITCH, THOMAS PERCY. *See EMPIRE MARKETING BOARD.*

HOFFERT, WILFRED HERMANN, and CLAXTON, G. Motor benzole, its production and use. London 1931. pp. xxii + 689. ill.

HOFFMANN, FRIEDRICH. *See GILDEMEISTER, EDUARD.*

HOLLEMAN, ARNOLD FREDERIK. A text-book of organic chemistry. 7th English edition. New York 1930. pp. xx + 594. ill.

HOLMES, R. S. *See UNITED STATES. Department of Agriculture.* Technical Bulletin No. 229.

HOLMYARD, ERIC JOHN. Makers of chemistry. Oxford 1931. pp. xvi + 314. ill.

HOLTZ, JOHN CROMWELL. The origin and decomposition of organic sulfur compounds under gas making conditions with particular reference to the role of the carbon-sulfur complex. Baltimore 1930. pp. iv + 83. ill.

HOME OFFICE. Report on effects of asbestos dust on the lungs and dust suppression in the asbestos industry. By EDWARD ROWLAND ALWORTH MEREWETHER and C. W. PRICE. London 1930. pp. 34.

— List of authorised explosives. London 1931. pp. 8.

HOOGSTRATEN, CORNELIS WILLEM VAN. Para-nitrophenylisocyanaat als reagens op alcoholen en amino-verbindingen. Leiden 1931. pp. xii + 137.

[HOPKIN & WILLIAMS, LTD.] Analytical reagents, standards and tests. London 1931. pp. xii + 135. ill. (Reference.)

HOPKINS, SIR FREDERICK GOWLAND. The problems of specificity in biochemical catalysis. London 1931. pp. 20.

HORIO, MASAO. *See* FUKUSHIMA, IKUZO.

HOUGEN, O. A. *See* KOWALKE, O. L.

HOUSE, A. G. Bacteriological control of milk : a practical guide for media preparation and milk testing. Reading 1931. pp. xii + 59. ill.

HOWARD, BERNARD FARMBOROUGH. *See* INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND.

HOWARD, P. E. *See* UNITED STATES. *Department of Agriculture.* Circular No. 129.

HOYLE, EDWARD. *See* MEDICAL RESEARCH COUNCIL. Special Report Series, No. 146.

HÜCKEL, WALTER. Theoretische Grundlagen der organischen Chemie. 2 vols. Leipzig 1931. pp. xii + 410, iv + 352.

HULL, CALLIE. *See* UNITED STATES NATIONAL RESEARCH COUNCIL.

HUME-ROTHERY, W. The metallic state. Electrical properties and theories. Oxford 1931. pp. xx + 372. ill.

HUNTER, ROBERT FERGUS. Some applications of the electronic theory of valency. Aligarh 1931. pp. 62.

— Some philosophical aspects of the phenomenon of tautomerism. Aligarh 1931. pp. 18.

HURRY, JAMESON BOYD. The woad plant and its dye. London 1930. pp. xxviii + 328. ill.

IMAI, HIROSHI, and HAGIYA, MASAMI. Zur Kenntnis der Waerme-

behandlung und der Abkuehlungsweise von gegossenen Zinnbronzen. (From the *Mem. Ryojun Coll. Eng.*, 1931, 4.)

IMAI, HIROSHI, and OBINATA, ICHIJI. Ueber die Natur der β -Umwandlung der Kupfer-Zinnlegierungen. I. (From the *Mem. Ryojun Coll. Eng.*, 1930, 3.)

INABA, J. See MIYAGAWA, ICHIRO.

INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND. The influence of chemical research on medicine and forensic medicine. By SIR WILLIAM HENRY WILLCOX. London 1924. pp. 19.

— Notes on contracts of service. By GEORGE STANLEY WITHERS MARLOW. London 1925. pp. 25.

— Food fakes: ancient and modern. By ERNEST GABRIEL JONES. London 1930. pp. 24. ill.

— Lessons learnt from industrial gases and fumes. By SIR THOMAS LEGGE. London 1930. pp. 23.

— Some notes on the Cinchona industry. By BERNARD FARMBOROUGH HOWARD. Streatfeild Memorial Lecture, 1930. London 1931. pp. 22. ill.

— The chemist and commerce. By LESLIE HERBERT LAMPITT. London 1930. pp. 16.

— The transmutation of the chemist. By ALBERT ERNEST DUNSTAN. London 1931. pp. 22.

— What is "probable error"? By JAMES FOWLER TOCHER. London 1931. pp. 63. ill.

INSTITUTION OF CHEMISTS (INDIA). Proceedings. Vol. I, etc. Calcutta 1929 +. (Reference.)

INTERNATIONAL SOCIETY OF MEDICAL HYDROLOGY. *Standard Measurements Committee*. International register of spas and medicinal waters. London 1931. pp. 20.

IRON AND STEEL INSTITUTE and NATIONAL FEDERATION OF IRON AND STEEL MANUFACTURERS. *Corrosion Committee*. First report to the Iron and Steel Industrial Research Council. London 1931. pp. 268. ill. (Reference.)

JACKSON, FREDERICK WILLIAM. See ANTHONY, D. J.

JACOB, A., and COYLE, V. The use of fertilisers in tropical and sub-tropical agriculture. London 1931. pp. 272. ill.

JACOB, K. D. See UNITED STATES. *Department of Agriculture*. Technical Bulletin No. 212.

JAHRBUCH DER ELEKTROCHEMIE. Years II—VII. Halle a.S. 1896—1901. (For circulation.)

JANKE, F. See FRANCK, H. HEINRICH.

JENSEN, HAROLD RUPERT. The chemistry, flavouring and manufacture of chocolate, confectionery and cocoa. London 1931. pp. xvi + 406. ill.

- JENSEN, S. TOVBORG. Chemistry and plant growth. København 1931. pp. 23. ill. [In Danish. English summary.]
- JOACHIM, ANIAN WALTER RICHARD. The principles of green manuring and their application in Ceylon. (From the *Trop. Agriculturist*, 1931, 77.) ill.
- JOHNSON, J. M. See VOEGTLIN, CARL.
- JONES, DAVID BREESE. See SULLIVAN, MICHAEL XAVIER.
- See UNITED STATES. *Department of Agriculture*. Circular No. 183.
- JONES, ERNEST GABRIEL. See INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND.
- JONES, G. W. See UNITED STATES. *Department of Commerce*. Bureau of Mines. Bulletin 279.
- JORDAN, EDWIN OAKES. Food poisoning and food-borne infection. 2nd edition. Chicago 1931. pp. xii + 286. ill.
- JOSEPH, T. L. See UNITED STATES. *Department of Commerce*. Bureau of Mines. Technical Paper 476.
- JOYCE, THOMAS GOODE. See ANTHONY, D. J.
- KANAMARU, KISOU. Electrokinetic potential of cellulose. (From *Cellulose Ind.*, 1931, 7.)
- KATZ, S. H. See UNITED STATES. *Department of Commerce*. Bureau of Mines. Technical Paper 480.
- KAUSCH, OSKAR. Die Kontaktstoffe der katalytischen Herstellung von Schwefelsäure, Ammoniak und Salpetersäure. Halle (Saale) 1931. pp. viii + 216. ill.
- KAWAGOYA, M. See SHINODA, JUNZO.
- KEANE, CHARLES ALEXANDER. See LUNGE, GEORGE.
- KEYES, HARMON E. See UNITED STATES. *Department of Commerce*. Bureau of Mines. Bulletin 321.
- KIESEL, ALEXANDER. Chemie des Protoplasmas. (Protoplasma Monographien.) Berlin 1930. pp. viii + 302. ill.
- KING, JAMES GRIEVE. See SCIENTIFIC AND INDUSTRIAL RESEARCH. *Fuel Research*.
- KING, R. O. See AERONAUTICAL RESEARCH COMMITTEE. Reports and Memoranda. No. 1318.
- KIPPING, FREDERIC BARRY. See PERKIN, WILLIAM HENRY, JR.
- KIPPING, FREDERIC STANLEY. See PERKIN, WILLIAM HENRY, JR.
- KISHI, YUKITARO. Some chemical studies of the mulberry leaves, used in each instar of silkworms and in each season of silk-worm-culture, and on the leaves in the fallen season. (From the *Bul. Sci. Fak. Terkultura, Kyushu Imp. Univ.*, 1931, 4.) [In Japanese. English summary.]
- KLEMM, LI. See ARKEL, A. E. VAN.
- KLEMM, WILHELM. See ARKEL, A. E. VAN.

KLUYVER, A. J. The chemical activities of micro-organisms. London 1931. pp. 109. ill.

KNOOP, FRANZ. Oxydationen im Tierkörper. Ein Bild von den Hauptwegen physiologischer Verbrennung. (Sammlung, New Series, Vol. I.) Stuttgart 1931. pp. 37.

KOBAYASHI, TORAO. Einige Versuche ueber den Einfluss der Temperatur auf die Kerbaehigkeit von Aluminiumlegierungen. (From the *Mem. Ryojun Coll. Eng.*, 1930, 3.)

KOENIG, PAUL. Die Gewinnung natürlich-nikotinfreier, nikotin-armer und nikotinreicher Tabake. (From *Die Umschau*, 1930.)

— Natürlich nikotinfreier und -armer Tabak. (From *Forschungen und Fortschritte*, 1930.)

KÖRBER, FRIEDRICH, and SCHIEBOLD, ERNST. [Editors.] Fortschritte der Röntgenforschung in Methode und Anwendung. Leipzig 1931. pp. viii + 326. ill.

KOLLOIDCHEMISCHE TECHNOLOGIE. 2nd edition. Edited by RAPHAEL ED. LIESEGANG. Dresden 1931. pp. viii + 1085. ill.

KOLTHOFF, ISAAK MAURITS. The colorimetric and potentiometric determination of p_{H} . Outline of electrometric titrations. New York 1931. pp. xii + 167. ill.

KOPP, HERMANN. Geschichte der Chemie. 4 vols. Braunschweig 1843-47. pp. xx + 455, x + 426, xii + 372, xvi + 448. ill. (2nd copy.)

KOPPEL, I. See CHEMIKER-KALENDER.

KORVEZEE, ANTONIA ELISABETH. Koperchloride als katalysator voor het Deacon-proces. Delft 1930. pp. 134. ill.

KOSAKA, HIROSI. Die Beziehungen zwischen den verschiedenen physiologischen Erscheinungen der Pflanzen und den in verschiedenen Vegetationsorganen in Erscheinung tretenden Farbstoffen. II. (From the *J. Dept. Agric., Kyushu Imp. Univ.*, 1931, 3.)

KOWALKE, O. L., HOUGEN, O. A., and WATSON, H. M. Transfer coefficients of ammonia in absorption towers. (*Bull. Univ. Wisconsin Eng. Exper. Stat.*, Ser. No. 68.) Madison 1915. pp. 86. ill.

KRÄNZLEIN, GEORG. Aluminiumchlorid in der organischen Chemie. (Systematische Übersicht.) Berlin 1930. pp. 47.

KRCZIL, FRANZ. Untersuchung und Bewertung technischer Adsorptionsstoffe. Leipzig 1931. pp. x + 504. ill.

KREISINGER, HENRY. See UNITED STATES. Department of Commerce. Bureau of Mines. Bulletin 302.

KRISHMAN, M. S., and MAHADEVAN, C. Pleochroic "giant" halos. (From the *Indian J. Physics*, 1931, 5.) ill.

KÜHL, HANS. Cement chemistry in theory and practice. Translated by JOSEPH WILLIAM CHRISTELOW. London [1931]. pp. vi + 64. ill.

KUNZMANN, TH. Die Bedeutung der wissenschaftlichen Tätigkeit Friedrich Wöhlers für die Entwicklung der deutschen chemischen Industrie. Berlin 1930. pp. 90.

KURRIS, FRANCISCUS JOANNES JOSEPHUS HUBERTUS. Evenwichten van vast calcium en magnesium carbonaat met koolzuur-oplossingen. Maastricht 1930. pp. 94. ill.

LABBÉ, HENRI. Le cacao et le chocolat au point de vue alimentaire et hygiénique. Bruxelles 1930. pp. 24.

LAMPITT, LESLIE HERBERT. *See INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND.*

LANDER, GEORGE DRUCE. *See CAVEN, ROBERT MARTIN.*

LANE, E. C. *See UNITED STATES. Department of Commerce. Bureau of Mines. Bulletin 291.*

LANE, F. W. *See UNITED STATES. Department of Commerce. Bureau of Mines. Technical Paper 477.*

LARSEN, B. M. *See UNITED STATES. Department of Commerce. Bureau of Mines. Technical Paper 466.*

LAVOISIER, ANTOINE LAURENT. *See COCHRANE, J. A.*

— *See FOSTER, MARY LOUISE.*

LEGGE, SIR THOMAS. *See INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND.*

LEK, JOHANNES BARTHELOMEUS VAN DER. Onderzoeken over de butylalkoholgisting. Delft 1930. pp. viii + 143.

LEVENE, PHOEBUS AARON, and BASS, LAWRENCE W. Nucleic acids. (American Chemical Society Monograph Series.) New York 1931. pp. 337. ill.

LIER, HEIN. Het caseïnesol. Amsterdam 1924. pp. viii + 113. ill.

LIESCHE, OTTO. Rechenverfahren und Rechenhilfsmittel mit Anwendungen auf die analytische Chemie. (Die chemische Analyse, Vol. XXX.) Stuttgart 1932. pp. viii + 203. ill. (Reference.)

LIESEGANG, RAPHAEL ED. *See KOLLOIDCHEMISCHE TECHNOLOGIE.*

LIPPmann, EDMUND OSKAR VON. Entstehung und Ausbreitung der Alchemie. Mit einem Anhange: zur älteren Geschichte der Metalle. 2 vols. Berlin 1919-31. pp. xvi + 742, viii + 258.

LLEWELLYN, HERBERT MERVYN. *See SCIENTIFIC AND INDUSTRIAL RESEARCH. Building Research.*

LOEB, LEONARD B. The nature of a gas. New York 1931. pp. x + 153. ill.

LÖFQUIST, HELGE. *See BENEDICKS, CARL.*

LUNGE, GEORGE and KEANE, CHARLES ALEXANDER. Technical methods of chemical analysis. 2nd edition. Edited by C. A. KEANE and PERCY CYRIL LESLEY THORNE. Vol. III. London 1931. pp. xx + 678. ill. (Reference.)

LUTHER, [ROBERT THOMAS DIEDRICH]. *See* OSTWALD, [WILHELM].

LUTZ, H. F. Viticulture and brewing in the ancient Orient. Leipzig 1922. pp. viii + 166. ill.

MA, WEN-CHAO. A cytopathological study of acute and chronic morphinism in the albino rat. (From the *Chinese J. Physiol.*, 1931, 5.) ill.

MCBAIN, JAMES WILLIAM. The sorption of gases and vapours by solids. London 1932. pp. xii + 577. ill.

McCoy, G. W. *See* PROBEY, T. F.

MAERZ, A., and PAUL, M. REA. A dictionary of color. New York 1930. pp. 207. ill. (*Reference*.)

MAHADEVAN, C. *See* KRISHMAN, M. S.

MAILLERAYE, LA. *See* SOCIÉTÉ DE LA MAILLERAYE.

MAKKUS, W. *See* FRANCK, H. HEINRICH.

MARCHAND, BERNARD DE COLIGNY. *See* SOUTH AFRICA, UNION OF. *Department of Agriculture*. (Division of Chemistry Series, No. 113.)

MARK, HERMANN. *See* MEYER, KURT H.

MARK, H., and WIERL, R. Die experimentellen und theoretischen Grundlagen der Elektronenbeugung. (Fortschritte der Chemie, Physik und physikalischen Chemie, Vol. XXI.) Berlin 1931. pp. iv + 126. ill.

MARLOW, GEORGE STANLEY WITHERS. *See* INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND.

MASON, CLYDE WALTER. *See* CHAMOT, ÉMILE MONNIN.

MASON, T. N. *See* MINES DEPARTMENT. *Safety in Mines Research Board*. Paper No. 64.

MAXIMOV, N. A. A textbook of plant physiology. Edited by A. E. MURNEEK and R. B. HARVEY. New York 1930. pp. xvi + 381. ill.

MAYOW, JOHN. *See* PATTERSON, THOMAS STEWART.

MEDICAL RESEARCH COUNCIL. Special Report Series, No. 146. The antiscurvy vitamin in apples. By MARY F. BRACEWELL, EDWARD HOYLE, and SYLVESTER SOLOMON ZILVA. London 1930. pp. 45. ill.

MEIER, (AUGUST) WILLI (ALBERT). Untersuchungen über Dispersion und Absorption bei Metallen für das sichtbare und ultraviolette Spektrum. Leipzig 1909. pp. 70. ill.

MELDRUM, ANDREW NORMAN. The eighteenth century revolution in science—the first phase. Calcutta 1930. pp. x + 60.

MÉMORIAL DES POUDRES ET SALPÈTRÉS. Vols. I—XVII. Paris 1882—1914.

MENDLIK, FERENCZ. Over de structuur van yohimbine. Rotterdam 1930. pp. viii + 94.

- MEREWETHER, EDWARD ROWLAND ALWORTH. *See* HOME OFFICE.
- MERZ, ALBERT R. *See* UNITED STATES. *Department of Agriculture.* Circular No. 185.
- METZGER, HANS. Starrpunkt und Viskosität bituminöser Stoffe. Halle (Saale) 1930. pp. viii + 59. ill.
- MEYER, KURT H., and MARK, HERMANN. Der Aufbau der hochpolymeren organischen Naturstoffe auf Grund molekularmorphologischer Betrachtungen. Leipzig 1930. pp. viii + 264. ill.
- MIAULL, STEPHEN. A history of the British chemical industry. London 1931. pp. xvi + 273. ill.
- MICHEL, JACQUES. Coloration des métaux. Paris 1931. pp. iv + 272. ill.
- MIHOLIĆ, STANKO STANKOV. Odredjivanje magnezija kao magnezijev pirofosfat. (From the *Bull. Soc. Chim. Yougoslav.*, 1930, 1.) ill.
- Kemijska analiza alkaličnih kiselica u Gornjem Gaberniku. (From the *Bull. Soc. Chim. Yougoslav.*, 1931, 2.)
- MINES DEPARTMENT. *Safety in Mines Research Board.* Paper No. 62. The ignition of firedamp by the heat of impact of hand picks against rocks. By MAURICE JOHN BURGESS and RICHARD VERNON WHEELER. London 1930. pp. 21. ill.
- — — Paper No. 63. The propagation of combustion in powdered coal. By HAROLD EARLE NEWALL and FRANK STURDY SINNATT. London 1930. pp. 58. ill.
- — — Paper No. 64. The inflammation of coal dusts: the effect of the presence of firedamp. By T. N. MASON and RICHARD VERNON WHEELER. London 1931. pp. 32. ill.
- — — Paper No. 65. A flame safety-lamp of high candle-power. By DONALD WHITLEY WOODHEAD. London 1931. pp. 15. ill.
- — — Paper No. 67. The pressures produced on blowing electric fuse links: the effect of the surrounding atmosphere. By G. ALLSOP and P. B. SMITH. London 1931. pp. 19. ill.
- — — Paper No. 68. A routine test of the inflammability of mine dusts. London 1931. pp. 9. ill.
- — — Paper No. 69. The ignition of firedamp by coal-mining explosives. I. Gallery experiments. By H. C. GRIMSHAW and WILLIAM PAYMAN. London 1931. pp. 45. ill.
- — — Paper No. 70. The ignition of firedamp by the heat of impact of coal cutter picks against rocks. By MAURICE JOHN BURGESS and RICHARD VERNON WHEELER. London 1931. pp. 21. ill.
- — — Paper No. 71. Spontaneous electrification in coal-dust clouds. By SAMUEL CYRIL BLACKTIN and H. ROBINSON. London 1931. pp. 17. ill.

MINISTRY OF AGRICULTURE AND FISHERIES. *Standing Committee on River Pollution.* River pollution and fisheries. A non-technical report of the work during 1926, 1927 and 1928. London 1930. pp. 69.

— *Joint Advisory Committee on River Pollution.* Second report. The reception of trade effluents into the sewers of the local sanitary authorities. London 1930. pp. 29.

— See MINISTRY OF TRANSPORT.

MINISTRY OF HEALTH. *Departmental Committee on Ethyl Petrol.* Final report. London 1930. pp. 91.

MINISTRY OF TRANSPORT and MINISTRY OF AGRICULTURE AND FISHERIES. *Joint Committee on Damage to Fisheries.* Detailed biological and chemical reports on tars used for road-surfacing. London 1930. pp. 171. ill.

MIYAGAWA, ICHIRO. Pyritic oxidation in relation to spontaneous combustion of coal. (From the *Mem. Coll. Eng. Kyushu Imp. Univ.*, 1930, 5.)

MIYAGAWA, ICHIRO, YAMADA, M., and INABA, J. The spontaneous combustion of coal. (From the *J. Fuel Soc. Japan*, 1929, 8.)

MOLES, E. Solubilidad de gases en soluciones acuosas de glicerina y ácido isobutírico. (From the *An. Junta amp. est. inv. científicas*, 1911, 4.) ill.

MORRIS, T. N. See SCIENTIFIC AND INDUSTRIAL RESEARCH. *Food Investigation.*

MOSS, H. See AERONAUTICAL RESEARCH COMMITTEE. Reports and Memoranda. No. 1318.

MÜLLER, ERICH. A laboratory manual of electrochemistry. Translated from the 4th edition by HARRY JOHANN THOMAS ELLINGHAM. London 1931. pp. xiv + 363. ill.

MULDER, CORNELIS HARMANUS KLAAS. Arsoncarbonzuren. Groningen 1929. pp. viii + 103. ill.

MUNCH, JAMES C. Bioassays: a handbook of quantitative pharmacology. London 1931. pp. x + 958. ill.

MURNEEK, A. E. See MAXIMOV, N. A.

NASH, ALFRED WILLIAM. The work of the physicist and chemist in the petroleum industry. (From the *School Sci. Rev.*, 1931.)

NATIONAL FEDERATION OF IRON AND STEEL MANUFACTURERS. See IRON AND STEEL INSTITUTE.

NEEDHAM, JOSEPH. Chemical embryology. 3 vols. London 1931. pp. xxii + 614, xvi, 615 to 1254, xvi, 1255 to 2022. ill.

NEW INTERNATIONAL ASSOCIATION FOR THE TESTING OF MATERIALS. First Communications. Vols. I and II. Zurich 1930. pp. xvi + 368, xvi + 282. ill. (Reference.)

NEWALL, HAROLD EARLE. See MINES DEPARTMENT. *Safety in Mines Research Board.* Paper No. 63.

NEWITT, DUDLEY MAURICE. *See* CHEMICAL ENGINEERING AND CHEMICAL CATALOGUE.

NEWMAN, F. H. Electrolytic conduction. London 1930. pp. xii + 441. ill.

NIERENSTEIN, MAXIMILIAN. The early history of the first chemical reagent. (From *Isis*, 1931, 16.)

NORTH, FREDERICK JOHN. Limestones: their origins, distribution, and uses. London 1930. pp. xxiv + 467. ill.

NOUVEL, OTTO. Die Industrie der Phenol-Aldehyd-Harze. Halle (Saale) 1931. pp. viii + 128. ill.

NOWAK, ALFRED. Ueber die chemische Wirkung dunkler elektrische Entladungen auf Kohlenoxyd und kohlenoxydhaltige Gasgemenge. München 1910. pp. 69. ill.

OBINATA, ICHIJI. On the nature of eutectoid-transformation of aluminium-bronze. Parts III and IV. X-ray analysis. (From the *Mem. Ryojun Coll. Eng.*, 1931, 3.) ill.

— See IMAI, HIROSHI.

OBOLD, WALTER LORD. *See* SMYTH, HENRY FIELD.

ONSLOW, MURIEL WHELDALE. The principles of plant biochemistry. Part I. Cambridge 1931. pp. viii + 326. ill.

ORGANIC SYNTHESES. An annual publication of satisfactory methods for the preparation of organic chemicals. Vol. XI. New York 1931. pp. viii + 106.

OSTWALD, WILHELM. Die Maltechnik jetzt und künftig. Leipzig 1930. pp. viii + 160. ill.

OSTWALD, [WILHELM], and LUTHER, [ROBERT THOMAS DIEDRICH]. Hand- und Hilfsbuch zur Ausführung physikochemischer Messungen. 5th edition. Edited by CARL DRUCKER. Leipzig 1931. pp. xx + 979. ill.

OTT, FRIEDRICH. Elektrolytische Reduktion der Niobsäure. München 1911. pp. vi + 73. ill.

PALMÆR, WILHELM. The corrosion of metals. Part II. Some researches concerning the dissolving of metals. (*Ingenjörsvetenskapsakademiens Handlingar*, No. 108.) Stockholm 1931. pp. 198 + iv. ill.

PARKINSON, S. T., and FIELDING, W. L. The microscopic examination of cattle foods. Ashford 1930. pp. viii + 97. ill.

PARLIAMENTARY REPORTS. *Departmental Committee on the Poisons and Pharmacy Acts*. Report. London 1930. pp. 59.

PARTINGTON, JAMES RIDDICK. A text-book of inorganic chemistry for university students. 3rd edition. London 1930. pp. viii + 1083. ill.

— A school course of chemistry. London 1930. pp. x + 388. ill.

PATTERSON, THOMAS STEWART. John Mayow in contemporary setting. A contribution to the history of respiration and combustion. (From *Isis*, 1931, 15.) ill.

PAUL, M. REA. *See* MAERZ, A.

PAULI, WILHELM EDWARD. Über ultraviolette und ultrarote Phosphorescenz. (From the *Sitz. Heidelberger Akad. Wiss.*, 1911, i.)

PAYMAN, WILLIAM. *See* MINES DEPARTMENT. *Safety in Mines Research Board.* Paper No. 69.

PEINTURES-PIGMENTS-VERNIS. Year VIII, etc. Paris 1931 +. (*Reference.*)

PERKIN, [WILLIAM HENRY, JUNR.], and KIPPING, [FREDERIC STANLEY]. Organic chemistry. New edition. By F. S. KIPPING and FREDERIC BARRY KIPPING. London 1931. pp. xii + 614 + xxix. ill.

PETERS, JOHN P., and VAN SLYKE, DONALD D. Quantitative clinical chemistry. Vol. I. Interpretations. [Baltimore] 1931. pp. xvi + 1264. ill.

PIATTI, LUIGI. Dampfdrucke binärer Gemische und ihre Bedeutung für die Absorption flüchtiger Stoffe. (Sammlung, New Series, Vol. I.) Stuttgart 1931. pp. 53. ill. (*Reference.*)

PICKARD, HERBERT. *See* SOUTH METROPOLITAN GAS COMPANY.

PING-KUN, CHEN. *See* SHINODA, JUNZO.

PIRANI, MARCELLO VON. [Editor.] Elektrothermie. Die elektrische Erzeugung und technische Verwendung hoher Temperaturen. Berlin 1930. pp. viii + 293. ill.

PLANCK, MAX. Einführung in die Theorie der Wärme. Zum Gebrauch bei Vorträgen, sowie zum Selbstunterricht. Leipzig 1930. pp. viii + 251. ill.

PLATOU, EILIF. Calorimetrische Untersuchungen über Stickoxydbildung aus Luft mittels Hochspannungswechselstromentladungen verschiedener Frequenz. Karlsruhe 1910. pp. 73. ill.

PLÜCKER, WILHELM. Tabellen- und Rechenbuch für Nahrungsmittelchemiker. Berlin 1931. pp. iv + 231.

— Untersuchung der Nahrungs- und Genussmittel. Allgemeine Methoden. Berlin 1931. pp. xii + 1046. ill.

POPE, SIR WILLIAM JACKSON. *See* BRITISH SCIENCE GUILD.

PREISLER, PAUL W. *See* COHEN, BARNETT.

PREScott, SAMUEL CATE, and WINSLOW, CHARLES-EDWARD A. Elements of water bacteriology with special reference to sanitary water analysis. 5th edition. New York 1931. pp. x + 219.

PRICE, C. W. *See* HOME OFFICE.

PRIESTLEY, JOSEPH. *See* HARTOG, SIR PHILIP.

PROBEY, T. F., and McCOY, G. W. Relation between trypanocidal and spirocheticidal activities of neoarsphenamine. (From the *U.S. Public Health Reports*, 1930, 45.)

PRYDE, JOHN. Recent advances in biochemistry. 3rd edition. London 1931. pp. x + 393. ill.

RABALD, ERICH. Werkstoffe: physikalische Eigenschaften und Korrosion. 2 vols. Leipzig 1931. pp. xxii + 976, x + 392. ill.

RABAS, A. See DUBSKY, J. V.

RAITT, WILLIAM. The digestion of grasses and bamboo for paper-making. London 1931. pp. xii + 116. ill.

RALSTON, OLIVER C. See UNITED STATES. Department of Commerce. Bureau of Mines. Bulletin 296.

READ, JOHN. Chemistry as a career. (From the *Alumnus Chronicle*, 1931.)

REDGROVE, HERBERT STANLEY. The cream of beauty. London 1931. pp. xii + 184.

REINKOBER, (FRANZ FRIEDRICH WILHELM) OTTO. Über Absorption und Reflexion ultraroter Strahlen durch Quarz, Turmalin und Diamant. Leipzig 1910. pp. 38. ill.

RICE, GEORGE S. See UNITED STATES. Department of Commerce. Bureau of Mines. Technical Paper 464.

RICE, W. E. See UNITED STATES. Department of Commerce. Bureau of Mines. Bulletin 302.

RICHARDSON, A. E. V. See AUSTRALIA, COMMONWEALTH OF. Council for Scientific and Industrial Research. Bulletin No. 49.

RIECHE, ALFRED. Alkylperoxyde und Ozonide. Studien über peroxydischen Sauerstoff. Dresden 1931. pp. viii + 172. ill.

RIJN, JACOBUS JOSEPH LOUIS VAN. Die Glykoside. Chemische Monographie der Pflanzenglykoside. 2nd edition. By HUGO DIETERLE. Berlin 1931. pp. viii + 620.

ROBINSON, H. See MINES DEPARTMENT. Safety in Mines Research Board. Paper No. 71.

ROBINSON, R. A. See BELL, [SIR WILLIAM JAMES].

ROSENHOLTZ, JOSEPH L., and SMITH, DUDLEY T. Tables and charts of specific gravity and hardness for use in the determination of minerals. (*Rensselaer Poly. Inst. Bull., Eng. Sci. Ser. No. 34.*) Troy 1931. pp. 83.

ROSENTHAL, SANFORD M. See VOEGTLIN, CARL.

ROSENTHAL, SANFORD M., and VOEGTLIN, CARL. The action of sulphhydryl, iron, and cyanide compounds on the oxygen consumption of living cells. (From the *U.S. Public Health Reports*, 1931, 46.) ill.

ROSS, HILARY. See WOOLEY, JERALD G.

RUSSELL, ANNIE ROBERTS. See FRIEND, JOHN NEWTON.

RUSSIAN PHYSICAL AND CHEMICAL SOCIETY. Journal. Vol. LXI. Leningrad 1929. (For circulation.)

RUTHERFORD, LORD, CHADWICK, JAMES, and ELLIS, CHARLES DRUMMOND. Radiations from radioactive substances. Cambridge 1930. pp. xii + 588. ill.

SACHS, STANISLAUS. Über die Wirkung des ultravioletten Lichtes auf Gase und über die dabei erzeugten Nebelkerne. Heidelberg 1910. pp. 47. ill.

SAGER, GEORGE F. Investigation of the thermal conductivity of the system copper-nickel. (*Rensselaer Poly. Inst. Bull., Eng. Sci. Ser. No. 27.*) 1930. pp. 48. ill.

SATO, D. See SHINODA, JUNZO.

SAYERS, R. R., and DAVENPORT, SARA J. Review of carbon monoxide poisoning. (*U.S. Public Health Bull. No. 195.*) Washington 1930. pp. ii + 97.

SCHAY, GÉZA. Hochverdünnte Flammen. (Fortschritte der Chemie, Physik und physikalischen Chemie. Vol. XXI.) Berlin 1930.

SCHEELE, CARL WILHELM. Collected papers. Translated from the Swedish and German originals by LEONARD DOBBIN. London 1931. pp. xvi + 367. ill.

SCHIEBOLD, ERNST. See KÖRBER, FRIEDRICH.

SCHMITT, N. *Derris elliptica* Benth., ein vegetabilischer und ungiftiger Insecticidlieferant. (From *Angew. Bot.*, 1930, 12.) ill.

SCHNEIDEWIND, RICHARD. Commercial chromium plating. (*Univ. Michigan Eng. Research Circular, No. 3.*) Ann Arbor 1930. pp. 60. ill.

SCHÖNFIELD, H. Neuere Verfahren zur Raffination von Oelen und Fetten. Berlin 1931. pp. 110. ill.

SCHUETTE, H. A. See HARVEY, ELLERY H.

SCHURINK, HENDRIK BEREND JOHANNES. Spirocyclische verbindungen. Groningen 1929. pp. viii + 188. ill.

SCIENTIFIC AND INDUSTRIAL RESEARCH, Department of. Report of test . . . on a retort of the Bussey Coal Distillation Company, Ltd., at Glenboig, Lanarkshire. London 1931. pp. vi + 28. ill.

— Report of test . . . on the plant of the Leicestershire (L. & N.) Coal Distillation Company, Ltd., at Newbold, near Ashby-de-la-Zouch. London 1931. pp. vi + 27. ill.

— The application of X-ray crystal analysis to industrial problems. London 1931. pp. iv + 13. ill.

— *Building Research.* Bulletin No. 10. The prevention of pattern staining of plasters. By D. G. R. BONNELL and L. W. BURRIDGE. pp. iv + 8.

— — Bulletin No. 11. The effect of building materials on paint films. By HERBERT MERVYN LLEWELLYN. London 1931. pp. iv + 4.

SCIENTIFIC AND INDUSTRIAL RESEARCH, Department of. *Food Investigation*. Special Report No. 40. The corrosion of the tin-plate container by food products. By T. N. MORRIS and J. M. BRYAN. London 1931. pp. viii + 85. ill.

— — *Fuel Research*. Physical and chemical survey of the national coal resources No. 18. The Yorkshire, Nottinghamshire and Derbyshire coalfield. South Yorkshire area. The Barnsley seam. London 1931. pp. iv + 67. ill.

— — — Physical and chemical survey of the national coal resources No. 19. The Lancashire coalfield. The Burnley, Accrington, Darwen and Bacup area. The Lower Mountain Mine. London 1931. pp. vi + 90. ill.

— — — Physical and chemical survey of the national coal resources, No. 20. The Yorkshire, Nottinghamshire and Derbyshire coalfield. South Yorkshire area. Analysis of commercial grades of coal. Part I. London 1931. pp. vi + 73. ill.

— — — Technical Paper No. 29. The action of hydrogen upon coal. I. By A. CRAWFORD [and others]. London 1931. pp. vi + 37. ill.

— — — Technical Paper No. 30. The water gas process : a study of the carbon and thermal balances. By JAMES GRIEVE KING and B. H. WILLIAMS. London 1931. pp. vi + 31. ill.

— — — Technical Paper No. 31. The sulphur compounds in water-gas and their removal. By WILLIAM EDGAR BAKES, JAMES GRIEVE KING, and FRANK STURDY SINKATT. London 1931. pp. vi + 35. ill.

— — — Technical Paper No. 32. A study of the tars and oils produced from coal. London 1931. pp. viii + 123. ill.

— — — Technical Paper No. 33. The oxidation of hydrogen, carbon monoxide and the paraffin hydrocarbons by copper oxide. By JAMES GRIEVE KING and L. J. EDGCOMBE. London 1931. pp. vi + 28. ill.

— — — Technical Paper No. 34. Light spirits from the low-temperature carbonisation of coal. By D. HICKS and JAMES GRIEVE KING. London 1931. pp. vi + 26. ill.

— — *Springs Research Committee*. Report. London 1931. pp. iv + 75. ill.

— — *Steel Structures Research Committee*. First report. London 1931. pp. xii + 276. ill. (Reference.)

SCOTLAND. *Department of Health*. Scottish Advisory Committee on Rivers Pollution Prevention. First report. Edinburgh 1931. pp. 58.

SEN, HEMENDRA KUMAR. High temperature flames and their thermodynamics. Calcutta 1931. pp. x + 135. ill.

SERONO, CESARE. *Memorie e comunicazioni scientifiche (1894-1930).* Roma 1931. pp. xii + 701.

SHAPTER, R. E. *See AUSTRALIA, COMMONWEALTH OF. Council for Scientific and Industrial Research.* Bulletin No. 49.

SHERMAN, HENRY CLAPP, and SMITH, SYBIL LAURA. *The vitamins.* 2nd edition. (American Chemical Society Monograph Series.) New York 1931. pp. 575. ill.

SHINODA, JUNZO, and PING-KUN, CHEN. Ein Bestandteil der *Euphorbia formosana* Hay. (From the *J. Pharm. Soc. Japan*, 1931, 51.) [In Japanese. German summary.]

SHINODA, JUNZO, KAWAGOYE, M., and SATO, D. Neue Methode zur Synthese von Polyoxychalkon, Polyoxyhydrochalkon und Polyoxyflavanon. VIII and IX. (From the *J. Pharm. Soc. Japan*, 1931, 51.) [In Japanese. German summary.]

SIM, ARTHUR HENRI. *See AUSTRALIA, COMMONWEALTH OF. Council for Scientific and Industrial Research.* Pamphlet No. 18.

SIMONSEN, JOHN LIONEL. *The terpenes.* Vol. I. *The simpler acyclic and monocyclic terpenes and their derivatives.* Cambridge 1931. pp. xvi + 420.

SINGER, DOROTHEA WALEY, assisted by ANNIE ANDERSON and ROBINA ADDIS. *Catalogue of Latin and vernacular alchemical manuscripts in Great Britain and Ireland dating from before the XVI century.* Vols. I and II. Brussels 1928-30. pp. xxvii + 328, viii, 329 to 756. (Reference.)

SINNATT, FRANK STURDY. *See MINES DEPARTMENT. Safety in Mines Research Board.* Paper No. 63.

— *See SCIENTIFIC AND INDUSTRIAL RESEARCH. Fuel Research.*

SLATER, C. S. *See UNITED STATES. Department of Agriculture.* Technical Bulletin No. 232.

SLOTTA, KARL HEINRICH. *Grundriss der modernen Arzneistoff-Synthese.* Stuttgart 1931. pp. x + 202 + 25 tables.

SMITH, DUDLEY T. *See ROSENHOLTZ, JOSEPH L.*

SMITH, MAURICE I. A quantitative colorimetric reaction for the ergot alkaloids and its application in the chemical standardization of ergot preparations. (From the *U.S. Public Health Reports*, 1930, 45.)

SMITH, MAURICE I., and ELVOVE, ELIAS. The epidemic of so-called ginger paralysis in Southern California in 1930-31. (From the *U.S. Public Health Reports*, 1931, 46.)

SMITH, MAURICE I., ELVOVE, ELIAS, and FRAZIER, W. H. The pharmacological action of certain phenol esters with special reference to the etiology of so-called ginger paralysis. (From the *U.S. Public Health Reports*, 1930, 45.)

SMITH, MAURICE I. [and others]. Pharmacological and chemical studies of the cause of so-called ginger paralysis. A preliminary report. (From the *U.S. Public Health Reports*, 1930, 45.)

SMITH, N. A. C. See UNITED STATES. *Department of Commerce. Bureau of Mines. Bulletin* 291.

SMITH, P. B. See MINES DEPARTMENT. *Safety in Mines Research Board. Paper No. 67.*

SMITH, SYBIL LAURA. See SHERMAN, HENRY CLAPP.

SMYTH, CHARLES PHELPS. Dielectric constant and molecular structure. (American Chemical Society Monograph Series.) New York 1931. pp. 214. ill.

SMYTH, HENRY FIELD, and OBOLD, WALTER LORD. Industrial microbiology. The utilization of bacteria, yeasts and molds in industrial processes. [Baltimore] 1930. pp. x + 313. ill.

SOCIÉTÉ DE LA MAILLERAYE. La Mailleraye. Bulletin technique. No. 2, etc. Paris 1924+. (Reference.)

SOUTH AFRICA, UNION OF. *Department of Agriculture. (Division of Chemistry Series, No. 113.) The sticky point water of soils.* By BERNARD DE COLIGNY MARCHAND. (From the *S. African J. Sci.*, 1930, 27.)

— — — (Division of Chemistry Series, No. 114.) A note on the abnormalities in the composition of oranges. By P. R. v.d. R. COPEMAN. (From the *S. African J. Sci.* 1930, 27.)

— — — (Division of Chemistry Series, No. 115.) Changes in the composition of oranges during ripening. By P. R. v. d. R. COPEMAN. (From the *Trans. Roy. Soc. S. Africa*, 1931, 19.)

— — — (Division of Chemistry Series, No. 118.) Fertilizing citrus trees. By J. J. THERON. From *Farming in S. Africa*, 1931.)

SOUTH METROPOLITAN GAS COMPANY. *Chemical Department.* An investigation into the nature and properties of coal tar. By EDWARD VICTOR EVANS and HERBERT PICKARD. [London] 1931. pp. 41. ill.

SPARN, ENRIQUE. Las asociaciones químicas con más de 500 socios. (From *Temas de Químicas*, 1930, 3.)

SPRINGER, LUDWIG. Laboratoriumsbuch für die Glasindustrie. Ergänzungsband. Halle (Saale) 1931. pp. x + 149. ill.

STÄGER, HANS. Elektrotechnische Isoliermaterialien. (Chemie in Einzeldarstellungen, Vol. XV.) Stuttgart 1931. pp. 354. ill.

STARK, JOHANNES. Fortschritte und Probleme der Atomforschung. Leipzig 1931. pp. viii + 112. ill.

STERNER-RAINER, LUDWIG. Die Edelmetall-Legierungen in Industrie und Gewerbe. Leipzig 1930. pp. 154. ill.

STREETER, H. W. Experimental studies of water purification. IV and V. (From the *U.S. Public Health Reports*, 1930, 45.)

SULLIVAN, JOHN D. *See UNITED STATES. Department of Commerce.* Bureau of Mines. Technical Papers 453, 472, and 473.

SULLIVAN, MICHAEL XAVIER, HESS, W. C., and JONES, DAVID BREESE. Studies on the biochemistry of sulphur. IV, VI and VII—X. (*U.S. Public Health Reports*, 1930, Supplements Nos. 78, 82, and 86.)

SUVERN, KARL. Die künstliche Seide. 5th edition. I Ergänzungsband (1926 bis einschliesslich 1928). Berlin 1931. pp. xvi + 642. ill.

SWEENEY, O. R. *See UNITED STATES. Department of Commerce.* Bureau of Standards. Miscellaneous Publication No. 112.

SWEET, ALVIN J. *See UNITED STATES. Department of Commerce.* Bureau of Mines. Technical Paper 453.

SYDNEY, UNIVERSITY OF. Reprints. Series III. (Chemistry, organic and inorganic.) Vol. I, etc. Sydney 1924 +. (Reference.)

SYLVESTER, HAROLD MACTAVISH. An investigation of pressures and vacua produced on structures by wind. (*Rensselaer Poly. Inst., Eng. Sci. Ser.*, No. 31.) Troy 1931. pp. 53. ill.

TABLES ANNUELLES DE CONSTANTES ET DONNÉES NUMÉRIQUES. Table des Matières des Vols I à V. Années 1910 à 1922. Paris 1930. pp. lxiv + 382. (Reference.)

TAKAMIYA, ETSUO. On the chemical nature of vitamin D. (From the *J. Dept. Agric., Kyushu Imp. Univ.*, 1930, 3.)

TALBERT, E. J. *See UNITED STATES. Department of Commerce.* Bureau of Mines. Technical Paper 480.

TAYLOR, HUGH STOTT. [Editor]. A treatise on physical chemistry. 2nd edition. 2 vols. New York 1931. pp. xvi + 852 + 48, xii, 901 to 1766 + 48. ill.

TECHNIKAI KURIR. Vol. II, etc. Budapest 1931 +. (Reference.)

THONON, J. J. *See SOUTH AFRICA, UNION OF. Department of Agriculture.* (Division of Chemistry Series, No. 118.)

THOMAS, HERMANN. [Editor.] Handbuch der praktischen und wissenschaftlichen Pharmazie. Vol. V, parts vii and viii. Berlin 1930—1931. pp. 1349 to 1702, 280, viii. ill.

THORNE, PERCY CYRIL LESLEY. *See LUNGE, GEORGE.*

TITLESTAD, NICOLAY. Photo-Volta-Ketten mit Urano-Uranyl-sulfat. Leipzig 1910. pp. 55. ill.

TOCHER, JAMES FOWLER. *See INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND.*

TRAVERS, A. Leçons de chimie. 2 vols. Paris 1931. pp. viii + 176, iv + 213. ill.

TROTMAN, EDWARD RUSSELL. *See TROTMAN, SAMUEL RUSSELL.*

TROTMAN, SAMUEL RUSSELL, and TROTMAN, EDWARD RUSSELL. Artificial silks. London 1931. pp. x + 274. ill.

TRUMBLE, H. C. *See* AUSTRALIA, COMMONWEALTH OF. *Council for Scientific and Industrial Research.* Bulletin No. 49.

TSCHITSCHIBABIN, ALEXEJ EUGENIEVITSCH. Fundamental principles of organic chemistry. 3rd edition. Moscow 1931. pp. xxiv + 727. ill. [In Russian.]

TUSSEN BROEK, MARINUS JOHANNES VAN. Eenige technische adsorptieprocessen en hierbij optredende chemische omzettingen electrische kleurmeting. Delft 1929. pp. 143. ill.

TWISS, DOUGLAS FRANK. *See* FRIEND, JOHN NEWTON.

UNION INTERNATIONALE DE CHIMIE. Dixième conférence, Liège 1930. Rapports sur les hydrates de carbone (glucides). Paris [1931.] pp. 287. ill. (Reference.)

UNITED STATES. *Department of Agriculture.* Circular No. 129. Survey of the fertilizer industry. By P. E. HOWARD. Washington 1931. pp. 22.

— — — Circular No. 138. Development and use of baking powder and baking chemicals. By LORIN H. BAILEY. London 1930. pp. 15.

— — — Circular No. 139. Method and procedure of soil analysis used in the Division of Soil Chemistry and Physics. Washington 1930. pp. 19.

— — — Circular No. 167. Moss peat, its uses and distribution in the United States. By A. P. DACHNOWSKI-STOKES. Washington 1931. pp. 11. ill.

— — — Circular No. 183. Factors for converting percentages of nitrogen in foods and feeds into percentages of proteins. By D. BREESE JONES. Washington 1931. pp. 21.

— — — Circular No. 185. New fertilizer materials. By ALBERT R. MERZ. Washington 1931. pp. 14. ill.

— — — Technical Bulletin No. 212. Mechanical analysis of finely divided phosphates. By LYLE T. ALEXANDER and K. D. JACOB. Washington 1930. pp. 24. ill.

— — — Technical Bulletin No. 214. The physical and chemical characteristics of certain American peat profiles. By IRVIN C. FEUSTEL and HORACE G. BYERS. Washington 1930. pp. 26. ill.

— — — Technical Bulletin No. 228. Character of the colloidal materials in the profiles of certain major soil groups. By M. S. ANDERSON and HORACE G. BYERS. Washington 1931. pp. 24.

— — — Technical Bulletin No. 229. Variations of the colloidal material extracted from the soils of the Miami, Chester, and Cecil series. By R. S. HOLMES and GLEN EDGINGTON. Washington 1930. pp. 23. ill.

— — — Technical Bulletin No. 232. A laboratory study of

the field percolation rates of soils. By C. S. SLATER and H. G. BYERS. Washington 1931. pp. 23. ill.

UNITED STATES. *Department of Agriculture*. Food and Drug Administration. Service and Regulatory Announcements. Food and Drug No. 4. Amendment of July 8, 1930, to Federal Food and Drugs Act and requirements thereunder. Washington 1931. pp. 6.

— *Department of Commerce*. Bureau of Mines. Bulletin 279. Limits of inflammability of gases and vapors. By HUBERT FRANK COWARD and G. W. JONES. Revised edition. Washington 1931. pp. vi + 114. ill.

— — — Bulletin 291. Tabulated analyses of representative crude petroleums of the United States. By N. A. C. SMITH and E. C. LANE. Washington 1928. pp. ii + 69.

— — — Bulletin 296. Iron oxide equilibria: a critique from the standpoint of the phase rule and thermodynamics. [By OLIVER C. RALSTON.] Washington 1929. pp. x + 326. ill.

— — — Bulletin 300. Coal-washing investigations: methods and tests. By H. F. YANCEY and THOMAS FRASER. Washington 1929. pp. viii + 259. ill.

— — — Bulletin 302. Fuel-efficiency tests on batch oil stills. By HENRY KREISINGER, W. R. ARGYLE, and W. E. RICE. Washington 1929. pp. vi + 94. ill.

— — — Bulletin 308. Oxides in pig iron: their origin and action in the steel-making process. By C. H. HERTY, Jr., and J. M. GAINES, Jr. Washington 1929. pp. iv + 56. ill.

— — — Bulletin 312. Bauxite: float-and-sink fractionations and flotation experiments. By B. W. GANDRUD and FRED D. DE VANNEY. Washington 1929. pp. iv + 101. ill.

— — — Bulletin 317. Rock-strata gases of the Cripple Creek district, Colo. and their effect on mining. By E. H. DENNY [and others]. Washington 1930. pp. iv + 66. ill.

— — — Bulletin 321. Innovations in copper leaching employing ferric sulphate-sulphuric acid. By HARMON E. KEYES. Washington 1930. pp. iv + 67. ill.

— — — Bulletin 327. Potash bibliography to 1928 (annotated). By J. F. T. BERLINER. Washington 1930. pp. ii + 578. (Reference.)

— — — Miners Circular 33. Advanced mine rescue training. Part I. Mine gases and methods for their detection. By J. J. FORBES and G. W. GROVE. Washington 1929. pp. 65. ill.

— — — Technical Paper 453. Factors governing removal of soluble copper from leached ores. By JOHN D. SULLIVAN and ALVIN J. SWEET. Washington 1929. pp. 26. ill.

— — — Technical Paper 464. Coal-dust explosibility

factors indicated by experimental mine investigations 1911 to 1929. By GEORGE S. RICE and H. P. GREENWALD. Washington 1929. pp. 45. ill.

UNITED STATES. *Department of Commerce*. Bureau of Mines. Technical Paper 466. Effect of manganese on distribution of carbon in steel. By B. M. LARSEN. Washington 1929. pp. iv + 31. ill.

— — — — Technical Paper 472. Acceleration of extraction of soluble copper from leached ores. By MORRIS GUGGENHEIM and JOHN D. SULLIVAN. Washington 1930. pp. 30. ill.

— — — — Technical Paper 473. Chemistry of leaching chalcocite. By JOHN D. SULLIVAN. Washington 1930. pp. 24. ill.

— — — — Technical Paper 476. Stock distribution and gas-solid contact in the blast furnace. By C. C. FURNAS and T. L. JOSEPH. Washington 1930. pp. iv + 73.

— — — — Technical Paper 477. A study of the lubrication fractions of Cabin Creek (W. Va.) petroleum. With chapters on the action of solvents on the heavy constituents of petroleum. By F. W. LANE [and others]. Washington 1930. pp. iv + 48. ill.

— — — — Technical Paper 479. A study of the production of activated carbon from various coals and other raw materials. By A. C. FIELDNER, R. E. HALL, and A. E. GALLOWAY. Washington 1930. pp. 30. ill.

— — — — Technical Paper 480. Intensities of odors and irritating effects of warning agents for inflammable and poisonous gases. By S. H. KATZ and E. J. TALBERT. Washington 1930. pp. 37. ill.

— — — Bureau of Standards. Feldspar. Commercial Standard CS23-30. Washington 1930. pp. vi + 14.

— — — Circular No. 389. The making of mirrors by the deposition of metal on glass. Washington 1931. pp. ii + 17. ill.

— — — — Miscellaneous Publication No. 110. Standards and specifications for non-metallic minerals and their products. Prepared by JOHN Q. CANNON, Jr. Washington 1930. pp. x + 680. ill. (*Reference*.)

— — — — Miscellaneous Publication No. 112. Manufacture of insulating board from cornstalks. By O. R. SWEENEY and W. E. EMLEY. Washington 1930. pp. 27. ill.

— — — — Miscellaneous Publication No. 114. Filters for the reproduction of sunlight and daylight and the determination of color temperature. By RAYMOND DAVIS and K. S. GIBSON. Washington 1931. pp. 165. ill.

[UNITED STATES] NATIONAL RESEARCH COUNCIL. Industrial research laboratories of the United States, including consulting

research laboratories. 4th edition. Compiled by CLARENCE JAY WEST and CALLIE HULL. (National Research Council Bulletin No. 81.) Washington 1931. pp. 267. (*Reference.*)

VALLANCE, REECE HENRY. *See FRIEND, JOHN NEWTON.*

VAN SLYKE, DONALD D. *See PETERS, JOHN P.*

VENNIN, L., and CHESNEAU, GABRIEL. Les poudres et explosifs et les mesures de sécurité dans les mines de houille. Paris 1914. pp. xx + 573. ill.

VEREIN DEUTSCHER CHEMIKER. Von den Kohlen und den Mineralölen. Ein Jahrbuch für Chemie und Technik der Brennstoffe und Mineralöle. Vol. I, 1928, etc. Berlin 1929+. (*Reference.*)

VIGOUREUX, P. Quartz resonators and oscillators. London 1931. pp. 217. ill.

VLISSOPOULOS, VLISSIOS. Über die sterische Hinderung bei Reaktionen von Aminosäuren und Polypeptiden, zugleich ein Beitrag zum Wesen der sterischen Hinderung. Leipzig 1931. pp. 31.

VOEGTLIN, CARL. *See ROSENTHAL, SANFORD M.*

VOEGTLIN, CARL, ROSENTHAL, SANFORD M., and JOHNSON, J. M. The influence of arsenicals and crystalline glutathione on the oxygen consumption of tissues. (From the *U.S. Public Health Reports*, 1931, 46.)

VOGEL, HANS, and GEORG, ALFRED. Tabellen der Zucker und ihrer Derivate. Berlin 1931. pp. xii + 663. (*Reference.*)

VON DEN KOHLEN UND DEN MINERALÖLEN. *See VEREIN DEUTSCHER CHEMIKER.*

WALDEN, PAUL. Mass, Zahl und Gewicht in der Chemie der Vergangenheit. Ein Kapitel aus der Vorgeschichte des sogenannten quantitativen Zeitalters der Chemie. (Sammlung, New Series. Vol. I.) Stuttgart 1931. pp. 106.

WALEY, ARTHUR. *See CHIH-CH'ANG, LI.*

WARREN, H. Electrical insulating materials. London 1931. pp. 516. ill.

WASHINGTON, HENRY STEPHENS. The chemical analysis of rocks. 4th edition. New York 1930. pp. xvi + 296.

WATSON, H. M. *See KOWALKE, O. L.*

WEIHE, ADOLF. *See BIANCHI, CALISTO.*

WEISS, (WOLFGANG) WALTER (FEODOR). Untersuchung von Baumwollsamenöl. Dresden 1931. pp. 43. ill.

WELDON, WALTER. On the ratios one to another of the atomic weights of the elements. Chapter I.—The glucinum family. London 1885. pp. 37. (*Reference.*)

WERTHER, MATTHEUS HENDRIKUS. Nitratie van ortho- en para-xenylamine-derivaten. Leiden 1931. pp. xvi + 118.

WEST, CLARENCE JAY. *See* UNITED STATES NATIONAL RESEARCH COUNCIL.

WHEELER, RICHARD VERNON. *See* MINES DEPARTMENT. *Safety in Mines Research Board.* Papers No. 62, 64, and 70.

WIERL, R. *See* MARK, H.

WILCOX, SIR WILLIAM [HENRY]. Toxic jaundice. (From *The Lancet*, 1931.) ill.

— *See* INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND.

WILLIAMS, B. H. *See* SCIENTIFIC AND INDUSTRIAL RESEARCH. *Fuel Research.*

WILSON, WILLIAM. Theoretical physics. Vol. I. Mechanics and heat. Newton-Carnot. London 1931. pp. x + 332. ill.

WINKLER, LUDWIG WILHELM. Ausgewählte Untersuchungsverfahren für das chemische Laboratorium. (Die chemische Analyse, Vol. XXIX.) Stuttgart 1931. pp. xviii + 155. ill. (*Reference.*)

WINSLOW, CHARLES-EDWARD A. *See* PRESCOTT, SAMUEL CATE.

WÖHLER, FRIEDRICH. *See* KUNZMANN, TH.

WOKER, GERTRUD. Die Katalyse. II. Spezieller Teil. Abt. 2. Biologische Katalysatoren. ii. Atmungsfermente. (Die chemische Analyse, Vol. XXVII/XXVIII.) Stuttgart 1931. pp. xx + 592. (*Reference.*)

WOLF, K. L. *See* BRIEGLEB, G.

WOODHEAD, DONALD WHITLEY. *See* MINES DEPARTMENT. *Safety in Mines Research Board.* Paper No. 65.

WOOLEY, JERALD G., with the technical assistance of HILARY ROSS. Phosphorus, total calcium, and diffusible calcium content of the blood sera of lepers and their relation to bone changes. (From the *U.S. Public Health Reports*, 1931, 46.)

YAMADA, M. *See* MIYAGAWA, ICHIRO.

YAMAFUJI, KAZUO. Changes of the chemical composition of proteins on heating. I. (From the *Bul. Fak. Terkultura, Kyushu Imp. Univ.*, 1930, 4.)

— Über die chemischen Bestandteile des Tabaks. I. (From the *Bull. Agric. Chem. Soc. Japan*, 1931, 7.)

YANCEY, H. F. *See* UNITED STATES. *Department of Commerce.* Bureau of Mines. Bulletin 300.

ZERNIK, FRANZ. *See* FLURY, FERDINAND.

ZIEREN, MAGDALENA. Bijdrage tot de kennis van de invloed van vergiften op de waterstofpotentiaal en de waterstoddiffusie. Purmerend 1929. pp. viii + 104. ill.

ZILVA, SYLVESTER SOLOMON. *See* MEDICAL RESEARCH COUNCIL Special Report Series, No. 146.