

# AUTHOR INDEX

## INDUSTRIAL AND ENGINEERING CHEMISTRY

### VOLUME 21—1929

AARONSON, H. A., AND OLSEN, FRED. Control of Viscosity of Solutions of Cellulose.....	1178	BICHOWSKY, FOORD VON. Titanium White.....	1061
ADAMS, G. O., AND CLARK, H. W. Sludge Digestion and pH Control.....	258	BIEDERMANN, RUDOLF, AND ROTH, W. A. Chemiker-Kalender 1929. I—Taschenbuch. II—Dichten, Löslichkeiten, Analyse. III—Theoretischer Teil. (Book Review, by Merz).....	393
ADAMS, J. R., AND MERZ, A. R. Hygroscopicity of Fertilizer Materials and Mixtures.....	305	BIERER, J. M., AND DAVIS, C. C. Relation between Artificial Aging Tests and Natural Aging. Symposium on Aging.....	1008
SMITH, D. P., AND GRIFFIN, H. K. Rate of Burning of Individual Particles of Solid Fuel. Symposium on Boiler Room Chemistry..	808	BIRCH, S. F., AND NORRIS, W. S. Action of Sulfuric Acid on Mercaptans.....	1087
ADAMS, L. V., AND KIENLE, R. H. Mechanism of Baking Process of Oil Varnishes.....	1279	BIRDSEYE, CLARENCE. Some Scientific Aspects of Packaging and Quick-Freezing Perishable Flesh Products: I—More Rapid Freezing Means Better Preservation.....	414
ALEXANDER, JEROME, editor. Colloid Chemistry, Theoretical and Applied. Vol. II—Biology and Medicine. (Book Review, by Weiser).....	194	II—Packaging Flesh Products for Quick-Freezing.....	573
ALLEN, E. W. Homer J. Wheeler. (American Contemporaries).....	510	III—Sanitary Measures in a Fish Dressing Plant.....	854
ALLEN, J. S., AND SEYER, W. F. Iodine Numbers of Lubricating Oils before and after Use in Automobile Engines.....	793	BLACHLY, F. E., AND JONES, L. D. Some Characteristics of Amorphous Wax.....	318
ALLGEIER, R. J., PETERSON, W. H., AND FRED, E. B. Production of Acetic and Lactic Acids from Mill Sawdust.....	1039	BLACK, C. K., AND GOSHORN, J. H. Study of Lithopone Darkening..	348
AMBLER, J. A. Reaction between Amino Acids and Glucose.....	47	BLACKWOOD, O. H., AND EXLINE, P. G. Lubrication of Gas Mains by Means of Oil Fog.....	1258
AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS. 1928 Yearbook of the American Association of Textile Chemists and Colorists. (Book Review, by Mitscherling).....	612	BLAKE, J. T. Adsorption of Stearic Acid by Carbon. Stearic Acid Symposium (Discussion by Boggs, 719).....	718
AMERICAN GAS ASSOCIATION. Gas Chemists' Handbook. (Book Review, by Harper).....	612	BLOOM, E. B., AND CHAMBERLIN, D. S. Thermal Treatment of Natural Gas.....	945
AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS. Petroleum Development and Technology, 1928-29. (Book Review, by Rittman).....	1149	BOBRANSKI, BOGUSLAW, AND SUCHARDA, EDUARD. Halbmikromethoden zur automatischen Verbrennung organischer Substanzen und ebullioskopischen Molekulargewichtsbestimmung. (Book Review, by Chamot).....	514
ANABLE, A. Complete Sludge-Washing Plant in Single Unit.....	223	BOORD, C. E., AND SCHAAD, R. E. Effects of Knock-Suppressing and Knock-Inducing Substances on Ignition and Partial Combustion of Certain Fuels.....	756
ANDERSON, H. G. Rapid-Indicating Continuous-Reading Vacuum and Pressure Gages.....	795	BORUFF, C. S., AND BUSWELL, A. M. Fermentation Products of Cellulose.....	1181
ANDERSON, H. V., AND CLARK, G. L. Application of X-Rays in Classification of Fibrous Silicate Minerals Commonly Termed Asbestos.....	924	BOSNJAKOVIC, FR., AND MERKEL, FR. Diagramme und Tabellen zur Berechnung der Absorptions-Kaltemaschinen. (Book Review, by Ehrenfeld).....	802
X-Ray Study of Zonal Structure of Silica Brick from Roof of Basic Open-Hearth Furnace.....	781	BOUTON, G. M., FERGUSON, LAWRENCE, AND SCHUMACHER, E. E. Effect of Small Quantities of Third Elements on Aging of Lead-Antimony Alloys.....	1042
AND LONG, J. S. Chemical Calculations. (Book Review, by Popoff).....	94	BOWLUS, J. L., AND MERRILL, H. B. Absorption by Leather of Sulfur Compounds from Spruce Extract.....	1291
AUDIBERT, ETIENNE, AND RAINEAU, ANDRÉ. Action of Iron Catalysts on Mixtures of Carbon Monoxide and Hydrogen.....	880	BRANARD, S. W., AND RHODES, F. H. Detergent Action of Soap.....	60
AUDUBERT, R., AND QUINTIN, M. Données numériques sur les colloïdes et l'adsorption. (Book Review, by Mathews).....	513	BRANFOT, M. H. Critical and Historical Study of the Pectic Substances of Plants. (Book Review, by Eckerson and Denny)....	1303
AYRES, E. E. Amyl Alcohols from the Pentanes.....	899	BRAY, J. L. Principles of Metallurgy. (Book Review, by Johnson).....	887
<b>BADGER, W. L., AND BAKER, E. M. Inorganic Chemical Technology. (Book Review, by Coover).....</b>	1303	BRAY, M. W., AND SCHAFER, E. R. Pulping Flax Straw. VI—Properties of Flax Straw Cellulose and Its Value in the Cellulose Industries.....	278
AND MONRAD, C. C. Boiling Points of Electrolytic Caustic Solutions.....	40	BRIFFER, M. Photometric and Electrometric Measurements of Gelatin Behavior.....	266
BAHLKE, W. H., AND KAY, W. B. Specific Heats of Petroleum Vapors.....	942	AND COHEN, J. H. Food Gelatin Values Relative to Concentrations.....	264
BAILEY, K. C., AND DOROTHY. Etymological Dictionary of Chemistry and Mineralogy. (Book Review, by Patterson).....	611	BRITAIN, C. L. Chart for Estimation of Equivalent Cures.....	362
BAKER, E. M. Automatic Plating Machinery.....	400	BROUSE, DON. Consistency of Animal Glue.....	242
AND BADGER, W. L. Inorganic Chemical Technology. (Book Review, by Coover).....	1303	AND BROWNE, F. L. Nature of Adhesion between Glue and Wood. TRUAX, T. R., AND BROWNE, F. L. Significance of Mechanical Wood-Joint Tests for Selection of Woodworking Glues.....	74
AND PETTIBONE, E. E. Rapid Graphical Method for Calculation of Steam Distillation Problems.....	562	BROWN, B. K., AND CRAWFORD, F. M. Survey of Nitrocellulose Lacer. (Book Review, by Cullane).....	93
BALDWIN, J. T. Additive Quality of Oil Absorption.....	326	BROWN, C. E., THEIS, E. R., AND LONG, J. S. Studies in the Drying Oils. XII—Changes in Linseed Oil, Lipase, and Other Constituents of the Flaxseed as It Matures.....	1244
Mobility-Concentration Intercept.....	1121	BROWN, G. G., AND CARR, M. S. Gaseous Explosions. VII—Effect of Tetraethyl Lead on Rate of Rise of Pressure.....	1071
BALKE, C. W. Metals of the Tungsten and Tantalum Groups.....	1002	AND POBBELNIAK, W. J. Vaporization of Complex Mixtures....	773
BALL, J. M., SOMERVILLE, A. A., AND COPE, W. H. Aging of Vulcanized Rubber under Varying Elongation.....	1183	AND SODERS, MOTT, JR. Gaseous Explosions. VIII—Effect of Tetraethyl Lead, Hot Surfaces, and Spark Ignition on Flame and Pressure Propagation.....	1261
BARDORF, C. F. Cane-Wax Complex in Juices from Cane-Sugar Mills.....	366	BROWN, R. J., AND DAHLBERG, H. W. Inversion of Sucrose in Beet-House Sirups.....	282
BARNES, J. W. Sampling Apples in Orchard for Determination of Arsenical Spray Residue.....	172	BROWN, R. L., AND GALLOWAY, A. E. Methanol from Hydrogen and Carbon Monoxide. II—Dimethyl Ether.....	310
AND MURRAY, C. W. Sampling Cleaned Apples for Determination of Arsenical Spray Residue.....	1146	AND POLLOCK, R. N. Composition of Tar from Low-Temperature Carbonization of Utah Coal. II—Heavy Portions.....	234
BARRETT, O. W. The Tropical Crops. A Popular Treatment of the Practice of Agriculture in Tropical Regions, with Discussion of Cropping Systems and Methods of Growing the Leading Products. (Book Review, by Alsberg).....	293	BROWNE, C. A. Spontaneous Decomposition of Sugar-Cane Molasses.....	600
BARTELL, F. E., AND GRAEGER, O. H. Relation of Adhesion Tension to "Liquid Absorption".....	1248	BROWNE, F. L., AND BROUSE, DON. Nature of Adhesion between Glue and Wood.....	80
AND SMITH, C. N. Adhesion Tension Values of Different Types of Carbon Black against Water and against Benzene.....	1102	TRUAX, T. R., AND BROUSE, DON. Significance of Mechanical Wood-Joint Tests for Selection of Woodworking Glues.....	74
BARTLETT, W. J. Chemistry in Incandescent Lamp Manufacture.....	970	BUFFUM, W. W. Acceptance for Mr. Garvan. Priestley Medal Award.....	897
BASCH, E. J., AND SCHUMACHER, E. E. Lead-Tin-Cadmium as Substitute for Lead-Tin Wiping Solder.....	16	BUGGE, GUNTHER. Das Buch der grossen Chemiker. Vol. I—From Zosimos to Schoenbein. (Book Review, by Dains).....	1150
BAXTER, R. A. Refining of Shale Gasoline. I—Relation of Oxidation to Colors and Gums Produced in Gasoline from Colorado Oil Shales.....	1096	BURDITT, A. K., AND SCHAPHORST, W. F. Mechanical Handling of Materials in and about the Chemical Plant—1, 489; II—Belt Conveyors, 649; III—Other Types of Conveyors and Mechanical Handling Equipment.....	844
BEAKES, H. L. Settling of Pigments in House Paint—II.....	1118	BURKE, S. P., AND PLUMMER, W. B. Gas Flow through Packed Columns. [See IND. ENG. CHEM., 20, 1196 (1928)] Correction.....	238
BEAR, F. E. The Fertilizer Triangle.....	382	BUSENBERG, E. B., AND WINKELMANN, H. A. Effect of Stearic Acid on Reclaimed Rubber. Stearic Acid Symposium.....	730
BEAUMONT, A. B., AND KNUDSEN, H. R. Computation of No-Filler Fertilizer Mixtures.....	385	BUSWELL, A. M. Control of Scum in Sewage Tanks.....	322
BECK, A. J., AND MOHLMAN, J. W. Disposal of Industrial Wastes. Wastes from Corn Products and Paint and Dye Works.....	205	AND BORUFF, C. S. Fermentation Products of Cellulose.....	1181
BECK, D. W., KROHNKE, O., AND MAASS, E. Die Korrosion unter Berücksichtigung des Materialschutzes. I Band—Allgemeiner und theoretischer Teil. (Book Review, by Gillett).....	1304	AND ELDER, A. L. Changes of Sulfur Compounds during Sewage Treatment.....	560
BEHRE, ALFRED. Chemische Laboratorien. Ihre neuzeitliche Einrichtung und Leitung. (Book Review, by Bartow).....	95	BUTTLER, HOWLAND, EOFF, J. R., JR., AND MELCHIOR, WILLIAM. Some Unusual Alcoholic Fermentations.....	1277
BEHRMAN, A. S. Laboratory Experiments with a Foaming Boiler Water. Symposium on Boiler Room Chemistry.....	817		
BENNETT, H. T., STORY, L. G., AND PROVINE, R. W. Chemistry of Gum Formation by Cracked Gasoline.....	1079		
BIBB, C. H., AND LUCAS, H. J. Air Oxidation of Hydrocarbons Catalyzed by Nitrogen Oxides. I—Natural Gas; II—Benzene.....	633		

CADWELL, S. M. Correlation of Various Aging Tests with Natural Shelf Aging. Symposium on Aging.....	1017	III—X-Ray Examination of Methanol Catalysts Composed of Copper and Zinc.....	109
CALVERT, ROBERT. Relation of Composition to Properties of Lacquer Solvents.....	213	DAVIDSON, W. M., AND GERSDORFF, W. A. New Solvents for Active Principles of Pyrethrum.....	1251
CAMERON, F. K., AND CLIFFORD, A. T. Solid Solutions of Lime and Arsenic Acid.....	69	DAVIS, C. C., AND BIERER, J. M. Relation between Artificial Aging Tests and Natural Aging. Symposium on Aging.....	1008
CARLETON, R. A. Electrical Heating by the Container-Resistance Method.....	525	DAVIS, J. D., AND REYNOLDS, D. A. Benzene-Pressure Extraction of Coal.....	1295
CARNEGIE INSTITUTE OF TECHNOLOGY. Proceedings of Second International Conference on Bituminous Coal, November 19-24, 1928. (Book Review, by McBride).....	800	DEMING, W. E., AND MEHRING, A. L. Gravitational Flow of Fertilizers and Other Comminuted Solids.....	661
CARR, M. S., AND BROWN, G. G. Gaseous Explosions. VII—Effect of Tetraethyl Lead on Rate of Rise of Pressure.....	1071	DEPEW, H. A. Influence of Pigments on Some Physical Properties of Unvulcanized Rubber.....	1027
CARSON, C. M., AND SEBRELL, L. B. Some Observations on Carbon Black.....	911	DESBLEDS, L. B. Exact Colour Matching and Specifying. (Book Review, by Olney).....	1148
CARSWELL, T. S. Sulfamide Derivatives as Plasticizers for Acetyl Cellulose.....	1176	DESCROIX, L. Art de l'ingénieur et métallurgie resistance des matériaux et données numériques diverses. Tables annuelles de constantes et données numériques, Extrait du Volume VI, 1923-1924. (Book Review, by Thompson).....	294
CHAMBERLIN, D. S., AND BLOOM, E. B. Thermal Treatment of Natural Gas.....	945	DEUTSCHE FÄRBER-ZEITUNG. Deutscher Färberkalender für das Jahr 1929. (Book Review, by Herrick).....	393
SIMMONS, C. W., THORPE, M. A., AND ULLMANN, H. M. Petroleum Wash-Oil Thickening in the Scrubbing of Coke-Oven Gas.....	313	DE WOLF, PHILIP. Evaporation.....	451
THEIS, E. R., SCHLINGMAN, P. F., AND LONG, J. S. Studies in the Drying Oils. X—Fumes from Oil Kettles.....	333	DICKIE, W. S. Calcination.....	461
CHEMICAL CATALOG CO., INC. Chemical Engineering Catalog. (Book Review, by Redman), 93; (Book Review, by Helfrich).....	1302	DITERICH, E. O. Time and Temperature-Plasticity Relations for Crude Rubber as Measured with Goodrich Plastometer.....	768
CHEMICAL ENGINEERS, INSTITUTION OF. Transactions of the Institution of Chemical Engineers. Vol. 5—1927. (Book Review, by McBride).....	392	DINSMORE, R. P. Stearic and Oleic Acids as Rubber-Compounding Ingredients. Stearic Acid Symposium.....	722
CHEMICAL INDUSTRY, SOCIETY OF. Annual Reports of Society of Chemical Industry on Progress of Applied Chemistry. Vol. XIII—1928. (Book Review).....	888	DODGE, B. F., AND HUFFMAN, J. R. Decomposition of Methanol over Catalysts Composed of Oxides of Zinc and Chromium.....	1056
CHERNOJOKOV, N. I. Carbonization of Lubricating Oils and Fuel Oils.....	315	DORR, J. V. N. Conversion of Batch into Continuous Processes.....	465
CHIMIE ET INDUSTRIE. La grande oeuvre de la chimie. (Book Review, by Zanetti).....	1304	DOW, H. H. Lord Kelvin's Law in Chemical Manufacture.....	368
CHIPMAN, JOHN, AND PELTIER, S. B. Vapor Pressure and Heat of Vaporization of White Phosphorus.....	1106	DUFTON, A. F., AND FISHERDEN, MARGARET. Heat Transmission. (Book Review, by Lathrop).....	512
CLARK, C. L., AND WHITNEY, A. E. Stability of Metals at Elevated Temperatures. (Book Review, by French). (See White, 511).....	193	DUNN, E. T., AND HOWARD, F. C. Crystalline Changes in Copper Due to Annealing.....	550
CLARK, G. L. X-Ray Contributions to Problem of Polymerization. AND ANDERSON, H. V. Application of X-Rays in Classification of Fibrous Silicate Minerals Commonly Termed Asbestos.....	128	DUNSTAN, A. E., AND PITKETHLY, R. Some Aspects of Cracking.....	643
X-Ray Study of Zonal Structure of Silica Brick from Roof of Basic Open-Hearth Furnace.....	924	EASTER, S. S., AND WILLAMAN, J. J. Factors Affecting Color in Sorghum Sirup.....	1138
AND TSCHENTKE, H. L. Physico-Chemical Studies on Mechanism of Drying of Linseed Oil. I—Changes in Density of Films.....	781	EDDY, W. H., KOHMAN, E. F., AND HALLIDAY, NELLIE. Vitamins in Canned Foods. VII—Effect of Storage on Vitamin Value of Canned Spinach.....	347
CLARK, H. W., AND ADAMS, G. O. Sludge Digestion and pH Control. CLIFFORD, A. T., AND CAMERON, F. K. Solid Solutions of Lime and Arsenic Acid.....	258	KOHMAN, E. F., AND KRAMER, M. M. Vitamins in Canned Foods. VIII—Home Canning and Commercial Canning Contrasted in Their Effect on Vitamin Values of Pears.....	859
69	EGGE, W. S., SCOTT, L. K., KITTELBERGER, W. W., AND LONG, J. S. Studies in the Drying Oils. XI—Monomolecular Films of Blown and Heat-Bodied Oils and Their Constituent Fatty Acids and Esters on Water Surfaces.....	950	
CLOW, BERTHA, AND MARLATT, ABBY. Antirachitic Factor in Burbot-Liver Oil.....	281	EGLOFF, GUSTAV, AND LOWRY, C. D., JR. Distillation Methods, Ancient and Modern.....	920
COCHRANE CORPORATION. Finding and Stopping Waste in Modern Boiler Rooms. (Book Review, by Work).....	94	AND MORRELL, J. C. Motor Fuels and Other Products from the Cracking of Wood Tars.....	537
COHEN, J. H., AND BRIEFER, M. Food Gelatin Values Relative to Concentrations.....	264	SCHAAD, R. E., AND LOWRY, C. D., JR. Oxidation Mechanisms of Paraffin Hydrocarbons.....	785
COLLINS, L. F., AND WALKER, J. H. Zeolite Water-Treating System of the Beacon Street Heating Plant.....	1020	EHLERS, CURT. Schmiermittel und ihre richtige Verwendung. (Book Review, by Gruse).....	95
CONANT, J. B. Organic Syntheses. An Annual Publication of Satisfactory Methods for Preparation of Organic Chemicals. Vol. IX. (Book Review, by Raiford).....	513	ELDER, A. L., AND BUSWELL, A. M. Changes of Sulfur Compounds during Sewage Treatment.....	560
CONNELL, L. H., AND SCHOEPFLE, C. S. Effect of Cathode Rays on Hydrocarbon Oils and on Paper.....	529	HOLMES, H. N., AND RAMSAY, JAMES. Platinized Silica Gels as Catalysts for Oxidation of Sulfur Dioxide.....	850
CONOVER, F. S. Practical Method for Obtaining Dry Air for Humidity Control in Rubber Laboratory.....	162	ELLIOTT, R. D., ELSENBAST, ARTHUR, AND SULLIVAN, E. J. Use of Super-Cel in the Sugar Refining Industry.....	676
COOPER, C. M., AND WIEZEVICH, P. J. Effects of Temperature and Pressure on Upper Explosive Limit of Methane-Oxygen Mixtures.....	1210	ELSENBAST, ARTHUR, ELLIOTT, R. D., AND SULLIVAN, E. J. Use of Super-Cel in the Sugar Refining Industry.....	676
COPE, W. H., SOMERVILLE, A. A., AND BALL, J. M. Aging of Vulcanized Rubber under Varying Elongation.....	1183	ENGINEERING FOUNDATION, INC. Popular Research Narratives. Tales of Discovery, Invention and Research. Vol. III. (Book Review).....	1150
COPSON, R. L., AND FROLICH, P. K. Vapor Pressure Chart for Lower Aliphatic Hydrocarbons.....	1116	EOFF, J. R., JR., BUTTLER, HOWLAND, AND MELCHOR, WILLIAM. Some Unusual Alcoholic Fermentations.....	1277
CORLIOS, E. G. DE, AND COWAN, R. J. Effect of Atmospheres on Heat Treatment of Metals.....	1164	ESSEX, J. L., MORRELL, J. C., AND FARAGHER, W. F. Relationship between Calorific Value and Other Characteristics of Residual Fuel Oils and Cracked Residuum. (Correction, 1287).....	933
COWAN, R. J., AND CORLIOS, E. G. DE. Effect of Atmospheres on Heat Treatment of Metals.....	1164	EXLINE, P. G., AND BLACKWOOD, O. H. Lubrication of Gas Mains by Means of Oil Fog.....	1258
COWLES, H. C., JR., FERRIS, S. W., AND HENDERSON, L. M. Composition of Paraffin Wax.....	1090	FAGER, E. P., AND REYNOLDS, A. H. Absorption of Oxygen by Alkaline Tannates.....	357
CRANOR, D. F. Nature, Manufacture, and General Use of Stearic Acid. Stearic Acid Symposium.....	719	FAIR, G. M., KLEIN, LOUIS, AND WHIPPLE, M. C. Effect of Pressure upon Sludge Digestion.....	254
CRATER, W. DEC. Vapor Pressures of Glycerol Trinitrate and Certain Glycol Dinitrates.....	674	FALES, A. L. Treatment of Industrial Wastes from Paper Mills and Tannery on Neponset River.....	216
CRAWFORD, F. M., AND BROWN, B. K. Survey of Nitrocellulose Lacquer. (Book Review, by Culhane).....	93	FARAGHER, W. F., AND MORRELL, J. C. Cracking of Tars from Cannel Coal.....	1084
CRENNELL, J. T., AND LEA, F. M. Alkaline Accumulators. (Book Review, by Vinal).....	294	MORRELL, J. C., AND ESSEX, J. L. Relationship between Calorific Value and Other Characteristics of Residual Fuel Oils and Cracked Residuum. (Correction, 1287).....	933
CRUESS, W. V., AND JEFFREY, R. N. Effect of Hydrogen-Ion Concentration in the Dyeing of Cherries.....	1268	FARLEY, H. B., REED, H. M., AND JOSLYN, M. A. Effect of Temperature and Time of Heating on Extraction of Color from Red-Juice Grapes.....	1135
AND PITMAN, G. A. Hydrolysis of Pectin by Various Microorganisms. A Comparative Study.....	1292	FELSING, W. A., AND THOMAS, A. R. Vapor Pressures and Other Physical Constants of Methylamine and Methylamine Solutions.....	1269
CRUYDER, D. S., AND FROLICH, P. K. Catalysts for Formation of Alcohols from Carbon Monoxide and Hydrogen. IV—Decomposition and Synthesis of Methanol by Catalysts Composed of Zinc and Chromium Oxides.....	867	FENSKE, M. R., AND FROLICH, P. K. Catalysts for Formation of Alcohols from Carbon Monoxide and Hydrogen. V—Decomposition and Synthesis of Methanol with Zinc-Copper-Chromium Oxide Catalyst.....	1052
CUMMINGS, A. D., AND SEBRELL, L. B. Some Observations on Rubbers with Low Nitrogen Content.....	553	FROLICH, P. K., AND DAVIDSON, R. L. Catalysts for Formation of Alcohols from Carbon Monoxide and Hydrogen. III—X-Ray Examination of Methanol Catalysts Composed of Copper and Zinc.....	109
CUNO, C. W. Economic Factors in Chemical Plant Location.....	738	FERGUSON, C. S., AND KIENLE, R. H. Alkyd Resins as Film-Forming Materials.....	349
CURTIN, L. P. Zinc Meta-Arsenite—A (Proposed) New American Wood Preservative. [See IND. ENG. CHEM., 19, 878, 993, 1159, 1231, 1340 (1927); 20, 28 (1928)].....	707	FERGUSON, LAWRENCE, AND SCHUMACHER, E. E. Diffusion of Water through Rubber.....	158
CURTIS, C. A. Künstliche organische Pigmentfarben und ihre Anwendungsgebiete. (Book Review, by Herrick).....	710	SCHUMACHER, E. E., AND BOUTON, G. M. Effect of Small Quantities of Third Elements on Aging of Lead-Antimony Alloys.....	1042
DADSWELL, H. E., AND HAWLEY, L. F. Chemical Composition of Wood in Relation to Physical Characteristics.....	973	FERRIS, S. W., COWLES, H. C., JR., AND HENDERSON, L. M. Composition of Paraffin Wax.....	1090
DAHLBERG, H. W., AND BROWN, R. J. Inversion of Sucrose in Beet-House Sirups.....	282	FINK, G. J., AND HOLMES, J. A. Sodium Aluminate as Coagulant in Chemical Treatment of Cannery Waste Waters.....	150
DANCKWORTT, P. W. Lumineszenz-Analyse im filtrierten ultravioletten Licht. Ein Hilfsbuch beim Arbeiten mit den Analysen-Lampen. (Book Review, by Nitchie).....	294	FINN, A. N. Making the Glass Disk for a 70-Inch Telescope Reflector.....	744
DANIELSON, I. S., AND NORRIS, E. R. Ratfish-Liver Oil as Source of Vitamin A. (Correction, 1299).....	1304	FISCHER, W., AND HOUBEN, J. Das Anthracen und die Anthrachi-	
DAVIDSON, R. L., FROLICH, P. K., AND FENSKE, M. R. Catalysts for Formation of Alcohols from Carbon Monoxide and Hydrogen.....	1078		

none mit den zugehörigen vielkernigen Systemen. (Book Review, by Jaeger).....	95	HAN, J. E. S. Monosodium Glutamate as a Chemical Condiment....	984
FISHENDEN, MARGARET, AND DUTTON, A. F. Heat Transmission. (Book Review, by Lathrop).....	512	HANKS, W. V., AND MCADAMS, W. H. Studies in Absorption. I—Very Soluble Gases.....	1034
FITTERER, G. R., AND HERTY, C. H., JR. The System Ferrous Oxide-Silica.....	51	HARDING, E. P. Distribution of Sulfur in Oil Shale—III.....	818
FOLLANSBEE, E. M. Accelerated Aging vs. Shelf Aging. Symposium on Aging.....	1012	HARRIS, F. W. Patents and Court Procedure. (See Editorial "More on Patents," 299).....	609
FOOTE, P. D., AND SMITH, W. O. Capillary Phenomena in Non-Circular Cylindrical Tubes.....	567	HART, EDWARD, George Purselove Adamson. (American Contemporaries).....	1299
FORREST, H. O., ROBERTS, J. K., AND ROETHLI, B. E. Effect of Additions of Lime and Soda Ash to Brackish Water on Corrosion of Iron and Steel.....	33	HART, RALPH. Study of Water-Miscible Mineral-Oil Preparations..	85
FORREST, J. W. Bausch and Lomb Optical Company. (American Chemical Industries).....	191	HATCH, B. F. Phenol Recovery and Treatment Works of the Hamilton Coke and Iron Company.....	431
FOTH, GEORG. Handbuch der Spiritusfabrikation. (Book Review, by Haner).....	711	HAUSER, E. A. Importance of Colloid-Chemical and Colloid-Physical Research in Future Problems of Chemical Industry....	102
FOULK, C. W. Theory of Liquid Film Formation. Symposium on Boiler Room Chemistry.....	815	Rubber Structure Research and Its Bearing on Elastic Properties of Colloids in General.....	249
FRAZER, C. E., AND TRIMBLE, H. M. Solubility of Ethylene Glycol. Some Tertiary Systems.....	1063	What the X-Ray Tells Us of the Structure of Cellulose.....	124
FRED, E. B., ALLGEIER, R. J., AND PETERSON, W. H. Production of Acetic and Lactic Acids from Mill Sawdust.....	1039	HAWLEY, L. F., AND DADSWELL, H. E. Chemical Composition of Wood in Relation to Physical Characteristics.....	973
FROLICH, P. K., AND COPSON, R. L. Vapor Pressure Chart for Lower Aliphatic Hydrocarbons.....	1116	HAWORTH, W. N. Constitution of the Sugars. (Book Review, by Coates).....	709
AND CRYDER, D. S. Catalysts for Formation of Alcohols from Carbon Monoxide and Hydrogen. IV—Decomposition and Synthesis of Methanol by Catalysts Composed of Zinc and Chromium Oxides.....	867	HAYNES, WILLIAMS. Chemical Prices React to Technical Advances. HELLBACH, R., MOYER, A. J., MAY, O. E., AND HERRICK, H. T. Semi-Plant Scale Production of Gluconic Acid by Mold Fermentation.....	1198
DAVIDSON, R. L., AND FENSKE, M. R. Catalysts for Formation of Alcohols from Carbon Monoxide and Hydrogen. III—X-Ray Examination of Methanol Catalysts Composed of Copper and Zinc.....	109	HELLER, HANS, editor. Ubbelohde's Handbuch der Chemie und Technologie der Öle und Fette. Band I. (Book Review, by Bosart).....	711
AND FENSKE, M. R. Catalysts for Formation of Alcohols from Carbon Monoxide and Hydrogen. V—Decomposition and Synthesis of Methanol with Zinc-Copper-Chromium Oxide Catalyst.....	1052	HENDERSON, L. M., FERRIS, S. W., AND COWLES, H. C., JR. Composition of Paraffin Wax.....	1090
FROST, W., AND STAUDINGER, H. Anleitung zur organischen qualitativen Analyse. (Book Review, by Marvel).....	1151	HENDRICK, ELLWOOD. Maximilian Toch. (American Contemporaries).....	704
FÜRTH, A. Die Werkstoffe für den Bau chemischer Apparate. (Book Review, by Zeisberg).....	392	HERRICK, H. T., AND MAY, O. E. Molds and Chemical Manufacture. MAY, O. E., MOYER, A. J., AND HELLBACH, R. Semi-Plant Scale Production of Gluconic Acid by Mold Fermentation.....	618
FULLER, E. W. Effect of Stearic Acid on Various Crude Rubbers. Stearic Acid Symposium.....	723	HERTY, C. H., JR., AND FITTERER, G. R. The System Ferrous Oxide-Silica.....	1198
FULREADER, R. E. Refining of Light Oil with Silica Gel at Rochester, N. Y.....	691	HESSE, ALBERT. Enzymatische Technologie der Gärungsindustrien. (Book Review, by Gore).....	51
FURNESS, J. W., AND ASSOCIATES. Mineral Raw Materials. Survey of Commerce and Sources in Major Industrial Countries. (Book Review, by Willard).....	888	HEUKELERIAN, H. Losses Caused by Heating Liquefied Sewage Solids.....	889
GALLOWAY, A. E., AND BROWN, R. L. Methanol from Hydrogen and Carbon Monoxide. II—Dimethyl Ether.....	310	HILDEBRANDT, F. M. Adjustment of Acidity of Cane-Molasses Fermentations for Maximum Alcohol Yields.....	324
GAMBLE, D. L., AND STUTZ, G. F. A. Ultra-Violet Light Transmission Characteristics of Some Synthetic Resins.....	330	HILDITCH, T. P. Catalytic Processes in Applied Chemistry. (Book Review, by Brown).....	779
GARDNER, H. A., KNAUSS, C. A., AND VAN HEUCKEROOTH, A. W. Light-Colored Condensation Resin.....	57	HILL, T. G., AND HAAS, P. Introduction to Chemistry of Plant Products. Vol. I. (Book Review, by Willaman), 194; Vol. II—Metabolic Processes. (Book Review, by LeClerc).....	1149
GARDNER, W. H., AND WHITMORE, W. F. Nature and Constitution of Shellac. I—Preliminary Investigation of Action of Organic Solvents.....	226	HILL, W. L., REYNOLDS, D. S., AND JACOB, K. D. Ratio of Fluorine to Phosphoric Acid in Phosphate Rock.....	1150
GARVAN, F. P. Random Thoughts of a Lay Chemist. Priestley Medal Award.....	898	Reduction of Tricalcium Phosphate by Carbon.....	1253
GEHART, F. C. Chemistry and the Cocoa and Chocolate Industry. [See IND. ENG. CHEM., 20, 1295 (1928)] Correction.....	241	HOCKENYOS, G. L. Triethanolamine Oleate for Oil Sprays.....	1126
GERSDORFF, W. A., AND DAVIDSON, W. M. New Solvents for Active Principles of Pyrethrum.....	1251	HODGE, H. B., JR., AND RHODES, F. H. Viscosity Relationships in the System Sulfuric Acid-Nitric Acid-Water.....	647
GESELLSCHAFT FÜR LINDE'S EISMASCHINEN A. G. 50 Jahre Kältetechnik. (Book Review, by Gooman).....	410	HODGMAN, C. D., AND LANGE, N. A. Handbook of Chemistry and Physics. (Book Review).....	142
GINSBERG, ISMAR. Automatic Control in the Chemical Industries..	348	HOFMANN, H. E., AND REID, E. W. Cellulose Acetate Lacquers... Lifting of Varnishes by Lacquer Solvents.....	292
GOSHORN, J. H., AND BLACK, C. K. Study of Lithopone Darkening..	801	1,4-Dioxan.....	955
GRADWOHL, R. B. A., AND I. E. Blood and Urine Chemistry. (Book Review, by Griffith).....	1248	HOLLAND, MAURICE, WITH PRINGLE, H. F. Industrial Explorers. Word Portraits of Industrial Research Leaders. (Book Review)	247
GRABER, O. H., AND BARTELL, F. E. Relation of Adhesion Tension to "Liquid Absorption".....	607	HOLLER, H. D. Corrosiveness of Soils with Respect to Iron and Steel. Preliminary Studies.....	695
GRAFF, M. B. Ernst Twitchell. (American Contemporaries).....	889	HOLMES, H. N., RAMSAY, JAMES, AND ELDER, A. L. Platinized Silica Gels as Catalysts for Oxidation of Sulfur Dioxide.....	750
GRAFFIGNY, H. DE. Les industries du caoutchouc. Production-culture. Fabrication des objets en caoutchouc. Travail de la gomme brute et manufacture. Caoutchouc artificiel et de synthèse. (Book Review, by Wiegand).....	889	HOLMES, J. A., AND FINK, G. J. Sodium Aluminate as Coagulant in Chemical Treatment of Cannery Waste Waters.....	850
GRAHAM, J. J. T., AND McDONNELL, C. C. Deterioration of Soap-Nicotine Preparations—II.....	70	HOLMYARD, E. V. The Works of Geber. (Book Review, by Browne)	150
GREENLEAF, C. A., AND NELSON, E. K. Investigation of Cane-Molasses Distillery Slop.....	857	HOLVEN, A. L. Experimental Application of Automatic pH Recorders to Sugar-Refinery Alkalinity Control.....	391
GREER, E. J. Removal of Mercaptans from Solution by Adsorption on Metallic Sulfides.....	1033	HOLWAY, HOPE. Story of Water Supply. (Book Review, by Collins).....	965
GRENQUIST, E. A. Dispersion of Pigments in Rubber—II.....	665	HOOPER, HERBERT. Greetings from President of the United States. Priestley Medal Award.....	1150
GRIER, W. D. Identification of Rayon.....	168	HOOPER, E. S. Composition and Use of Ferric Hydroxide as a Coagulant.....	897
GRIFFIN, H. K., ADAMS, J. R., AND SMITH, D. F. Rate of Burning of Individual Particles of Solid Fuel. Symposium on Boiler Room Chemistry.....	808	HOUBEN, J., AND FISCHER, W. Das Anthracen und die Anthrachinone mit den zugehörigen vielkernigen Systemen. (Book Review, by Jaeger).....	58
GRIFFITHS, EZER. Heat Insulators. (Book Review).....	1304	HOUSEMAN, P. A., AND LACEY, H. T. Licorice Root in Industry....	95
GROGGINS, P. H., AND NEWTON, H. P. 2-Aminoanthraquinone from Chlorobenzene and Phthalic Anhydride.....	369	HOWARD, F. C., AND DUNN, E. T. Crystalline Changes in Copper Due to Annealing.....	915
GRUSE, W. A., AND LIVINGSTONE, C. J. Carbon Deposits from Lubricating Oils. Experiments with Heavy-Duty Engines.....	904	HOWK, B. W., AND MARVEL, C. S. Fatty Acids of Filter-Press Cake from Spent Soap Lye.....	550
GUBELMANN, IVAN, AND WEILAND, H. J. Fusion Curve of System Alpha-Naphthylamine-Beta-Naphthylamine.....	1239	HUDSON, J. H., AND SHEPPARD, S. E. Contribution to Preparation of Standard Gelatin.....	1137
WEILAND, H. J., AND STALLMANN, O. 1-Amino-2,4-Dichloroanthraquinone.....	1231	HUFFMAN, J. R., AND DODGE, B. F. Decomposition of Methanol over Catalysts Composed of Oxides of Zinc and Chromium.....	263
HAAS, P., AND HILL, T. G. Introduction to Chemistry of Plant Products. Vol. I. (Book Review, by Willaman), 194; Vol. II—Metabolic Processes. (Book Review, by LeClerc).....	1150	HUNT, J. K., WILLIAMSON, R. V., AND PATTERSON, G. D. Estimation of Brushing and Flowing Properties of Paints from Plasticity Data.....	1056
HALL, R. E. Some Examples and Precepts of Water Conditioning. Symposium on Boiler Room Chemistry.....	824	HURD, C. D. Pyrolysis of Carbon Compounds. (Book Review, by Bass).....	1111
HALLIDAY, NELLIE, EDDY, W. H., AND KOHMAN, E. F. Vitamins in Canned Foods. VII—Effect of Storage on Vitamin Value of Canned Spinach.....	347	HYDEN, W. L. Manufacture and Properties of Regenerated Cellulose Films. (Correction, 572).....	800
HAMILTON, T. S., AND MITCHELL, H. H. Biochemistry of the Amino Acids. (Book Review, by Leech).....	612	IKI, SADAŌ. Relation between Caking and Moisture-Absorbing Power of Some Japanese Coals.....	405
HAMILTON, W. F., AND MASSON, H. J. Study of Auto-Ignition Temperatures. III—(a) Mixtures of Pure Substances, (b) Gasolines.....	544	INMAN, M. T., JR. Sulfonated Oxidation Products of Petroleum as Insecticide Activators.....	239
HAMMETT, L. P. Solutions of Electrolytes. With Particular Application to Qualitative Analysis. (Book Review, by Popoff).....	1303	JACOB, K. D., REYNOLDS, D. S., AND HILL, W. L. Ratio of Fluorine to Phosphoric Acid in Phosphate Rock.....	542
		Reduction of Tricalcium Phosphate by Carbon.....	1253
		ROSS, W. H., AND MERZ, A. R. Preparation and Properties of the Ammonium Phosphates.....	1126
		JAEGER, A. O. New Contact Sulfuric Acid Process.....	286
		JEBENS, W. J., AND OLIN, H. L. Metallic Colloids and Knock Suppression.....	627
		JEFFREY, R. N., AND CRUICK, W. V. Effect of Hydrogen-Ion Concentration in the Dyeing of Cherries.....	43
		JOHNSON, C. R. Carbon Black. II—Role of Oxygen.....	1268
		JOHNSTON, A. C. Ethyl Abietate.....	1288
			688

- JONES, G. W., AND KLICK, J. R. Inflammability of Mixtures of Ethyl Alcohol, Benzene Furfural, and Acetone..... 791
- JONES, L. D., AND BLACHLY, F. E. Some Characteristics of Amorphous Wax..... 318
- JORDAN, H. E. Factors Contributing to Quality of Public Water Supplies..... 152
- JOSLYN, M. A., FARLEY, H. B., AND REED, H. M. Effect of Temperature and Time of Heating on Extraction of Color from Red-Juice Grapes..... 1135
- KARRER, E. Meaning and Measurement of Plasticity..... 770
- KAUSCH, OSCAR. Der Schwefelkohlenstoff. Seine Eigenschaften, Herstellung und Verwendung. (Book Review, by Fieldner)..... 392
- KAY, W. B., AND BAHLKE, W. H. Specific Heats of Petroleum Vapors. 942
- KEENAN, R. L., SHEPPARD, S. E., AND NIETZ, A. H. Supermolecular State of Polymerized Substances in Relation to Thin Films and Interfaces..... 126
- KELLEY, K. K. Thermodynamic Consideration of the Synthetic Methanol Process..... 353
- KELLY, M. W., AND THOMAS, A. W. Effect of Pretreatment upon Hydrolysis of Hide Powder by Saturated Calcium Hydroxide Solutions..... 701
- Influence of Acids upon Fixation of Wattle Tannin by Hide Powder. 697
- Syntan Tannage..... 698
- KENDALL, E. C. Thyroxine. (Book Review, by Cameron)..... 291
- KERSHAW, S. H. Safety in Manufacture of Sulfuric Acid by Contact Process..... 762
- KEYES, D. B. Manufacture of Anhydrous Ethyl Alcohol..... 998
- KING, E. P., AND SWANN, SHERLOCK, JR. Studies in Liquid Partial Oxidation—I..... 1227
- KEYES, F. G. Renaissance of the Absorption Refrigeration Cycle..... 477
- KIENLE, R. H., AND ADAMS, L. V. Mechanism of Baking Process of Oil Varnishes..... 1279
- AND FERGUSON, C. S. Alkyd Resins as Film-Forming Materials. 349
- KILLHEFFER, E. H. The Newport Company. (American Chemical Industries)..... 1300
- KING, E. P., SWANN, SHERLOCK, JR., AND KEYES, D. B. Studies in Liquid Partial Oxidation—II..... 1227
- KITTEMBERGER, W. W., LONG, J. S., SCOTT, L. K., AND EGGE, W. S. Studies in the Drying Oils. XI—Monomolecular Films of Blown and Heat-Bodied Oils and Their Constituent Fatty Acids and Esters on Water Surfaces..... 950
- KLEIN, LOUIS, WHIPPLE, M. C., AND FAIR, G. M. Effect of Pressure upon Sludge Digestion..... 254
- KLICK, J. R., AND JONES, G. W. Inflammability of Mixtures of Ethyl Alcohol, Benzene Furfural, and Acetone..... 791
- KNAUSS, C. A., GARDNER, H. A., AND VAN HEUCKEROOTH, A. W. Light-Colored Condensation Resin..... 57
- KNUDSEN, H. R., AND BEAUMONT, A. B. Computation of No-Filler Fertilizer Mixtures..... 385
- KOITSCHAU, RUDOLF. Einführung in die theoretische Wirtschaftschemie. (Book Review, by Carlton)..... 1151
- KOHMAN, E. F., HALLIDAY, NELLIE, AND EDDY, W. H. Vitamins in Canned Foods. VII—Effect of Storage on Vitamin Value of Canned Spinach..... 347
- KRAMER, M. M., AND EDDY, W. H. Vitamins in Canned Foods. VIII—Home Canning and Commercial Canning Contrasted in Their Effect on Vitamin Values of Pears..... 859
- KRALL, STANLEY. Natural vs. Artificial Aging. Symposium on Aging..... 1009
- KRAMER, M. M., EDDY, W. H., AND KOHMAN, E. F. Vitamins in Canned Foods. VIII—Home Canning and Commercial Canning Contrasted in Their Effect on Vitamin Values of Pears..... 859
- KROHNKE, O., MAASS, E., AND BECK, D. W. Die Korrosion unter Berücksichtigung des Materialschutzes. I Band—Allgemeiner und theoretischer Teil. (Book Review, by Gillett)..... 1304
- KUHN, W. E., AND RHODES, F. H. Inhibitors in Action of Acid on Steel..... 1066
- LACFY, H. T., AND HOUSEMAN, P. A. Licorice Root in Industry... 915
- LACEY, W. N., AND WOODS, HUBERT. Method of Studying Reactions in Portland Cement Kiln..... 1124
- LACHMAN, ARTHUR. Felix Lengfeld. (American Contemporaries)..... 1148
- LANGE, N. A., AND HODGMAN, C. D. Handbook of Chemistry and Physics. (Book Review)..... 292
- LANGE, OTTO. Technik der Emulsionen. (Book Review, by Holmes)..... 802
- LANGMUIR, IRVING. Presentation Address. Priestley Medal Award 896
- LARISON, E. L. Manufacture of High-Analysis Phosphate..... 1172
- LASSAR-COHN. Organic Laboratory Methods. (Book Review, by Whitmore)..... 392
- LAUBENGAYER, A. W. Collapsing Temperatures of Various Kinds of Laboratory Glass Tubing..... 174
- LEA, F. M., AND CRENNELL, J. T. Alkaline Accumulators. (Book Review, by Vinal)..... 294
- LEHNE, ADOLF. Textilchemische Erfindungen. Lieferung II—1 Juli—1 Dezember, 1927. Lieferung III—1 Januar—30 Juni, 1928. (Book Review, by Beattie)..... 514
- Lieferung IV—1 Juli—1 Dezember, 1928. (Book Review, by Fuoss)..... 889
- LEVINE, MAX. Biological Purification of Creamery Wastes..... 1223
- LIESCHKE, OTTO. Chemische Nomogramme. Erste Sammlung: Nr. 001—006. (Book Review, by Willard)..... 802
- LINDSAY, D. C. Manufactured Weather. An Aid to Modern Industry, Health, and Efficiency..... 502
- LINHAN, R. E., AND WHITMORE, W. F. Transparent Emulsions of Some Essential Oils..... 878
- LISTER, WALTER. Practical Steel Making. (Book Review, by French)..... 992
- LITTLE, A. D. The Handwriting on the Wall. A Chemist's Interpretation. (Book Review, by Roth)..... 292
- LIVINGSTONE, C. J., AND GRUSE, W. A. Carbon Deposits from Lubricating Oils. Experiments with Heavy-Duty Engines..... 904
- LOESBECK, HARRY VON. Preparation of Banana Vinegar..... 175
- LONG, J. S., AND ANDERSON, H. V. Chemical Calculations. (Book Review, by Popoff)..... 94
- CHAMBERLIN, D. S., THEIS, E. R., AND SCHLINGMAN, P. F. Studies in the Drying Oils. X—Fumes from Oil Kettles..... 333
- KITTEMBERGER, W. W., SCOTT, L. K., AND EGGE, W. S. Studies in the Drying Oils. XI—Monomolecular Films of Blown and Heat-Bodied Oils and Their Constituent Fatty Acids and Esters on Water Surfaces..... 950
- THEIS, E. R., AND BROWN, C. E. Studies in the Drying Oils. XII—Changes in Linseed Oil, Lipase, and Other Constituents of the Flaxseed as It Matures..... 1244
- LOWE, F. Atlas der letzten Linien der wichtigsten Elemente. (Book Review, by Davey and Nitchie)..... 801
- LOWRY, C. D., JR., AND EGLOFF, GUSTAV. Distillation Methods, Ancient and Modern..... 920
- EGLOFF, GUSTAV, AND SCHAAD, R. E. Oxidation Mechanisms of Paraffin Hydrocarbons..... 785
- LUCAS, H. J., AND BIBB, C. H. Air Oxidation of Hydrocarbons Catalyzed by Nitrogen Oxides. I—Natural Gas; II—Benzene 633
- LUSK, GRAHAM. Russell Henry Chittenden. (American Contemporaries)..... 91
- LUTTRINGER, A. D. La gomme de balata. Un volume de l'encyclopédie du caoutchouc et des matières plastiques. (Book Review, by Dinsmore)..... 514
- LUTZ, J. A., AND THEIS, E. R. Effect of Nitrate Oxygen upon Tannery Effluent..... 763
- MAASS, E., KROHNKE, O., AND BECK, D. W. Die Korrosion unter Berücksichtigung des Materialschutzes. I Band—Allgemeiner und theoretischer Teil. (Book Review, by Gillett)..... 1304
- MAILHE, A. Les combustibles liquides artificiels. (Book Review, by Egloff)..... 888
- MANTRELL, C. L. Industrial Carbon. (Book Review, by Batchelor) 293
- Tin. Its Mining, Production, Technology, and Applications. (Book Review, by Whetzel)..... 1303
- MARLATT, ABBY, AND CLOW, BERTHA. Anthracitic Factor in Burbot-Liver Oil..... 281
- MARLING, P. E. Effect of Age on Apparent Gain in Weight of Drying-Oil Films..... 346
- Effect of Various Driers on Linseed Oil Films during Aging..... 594
- MARKEL, C. S., AND HOWK, B. W. Fatty Acids of Filter-Press Cake from Spent Soap Lye..... 1137
- MASSON, H. J., AND HAMILTON, W. F. Study of Auto-Ignition Temperatures. III—(a) Mixtures of Pure Substances, (b) Gasolines..... 544
- MATHEWS, J. A. Recent Developments in Heat Resistant and Corrosion Resistant Steels..... 1158
- MAY, O. E., AND HERRICK, H. T. Molds and Chemical Manufacture 618
- HERRICK, H. T., MOYER, A. J., AND HELLBACH, R. Semi-Plant Scale Production of Gluconic Acid by Mold Fermentation..... 1198
- MAYER, A. W. Chemisches Fachwörterbuch für Wissenschaft, Technik, Industrie und Handel. Band I—Deutsch-Englisch-Französisch. (Book Review, by Merz)..... 612
- MCADAMS, W. H., AND HANKS, W. V. Studies in Absorption. I—Very Soluble Gases..... 1034
- MCAFEE, A. M. Manufacture of Commercial Anhydrous Aluminum Chloride..... 670
- MCCABE, W. L. Crystal Growth in Aqueous Solutions. I—Theory, 30; II—Experimental..... 112
- MCDONNELL, C. C., AND GRAHAM, J. J. T. Deterioration of Soap-Nicotine Preparations—II..... 70
- MCLEROY, K. P. Elements in Patent Law..... 608
- Passing the Patent Office Buck..... 799
- MCKAY, R. J. Corrosion. Round-Table Discussion..... 35
- Properties of Nickel in Caustic Evaporation..... 1283
- MCKECHNIE, A. B. Progress of Industrial Heating by Oil Circulation..... 496
- MCKITTRICK, D. S. Sulfur Compounds in Pressure-Cracked Naphtha and Cracked Naphtha Sludge..... 585
- MCMLLEN, E. L. Wetting of Pigments and Its Relation to Various Paint Characteristics..... 1237
- MEADE, R. K. Charles F. McKenna. (American Contemporaries) 987
- Chemists Pocket Manual. Practical Handbook Containing Tables, Formulas, Etc. (Book Review, by Smith)..... 1303
- MECKE, R. Bandenspektren und ihre Bedeutung für die Chemie. (Book Review, by Mulliken)..... 710
- MEERBOTT, P. B., AND STANISLAUS, I. V. S. American Soap Maker's Guide. An Up-to-Date Treatise on the Art and Science of the Manufacture of Soaps, Candles, and Allied Toilet Preparations. (Book Review, by Campbell)..... 291
- MEHRING, A. L. Factors Affecting the Drillability of Fertilizers... 1219
- AND DEMING, W. E. Gravitational Flow of Fertilizers and Other Comminuted Solids..... 661
- ROSS, W. H., AND MERZ, A. R. Preparation of Potassium Nitrate 379
- MELCHIOR, WILLIAM, BUTTLER, HOWLAND, AND EOFF, J. R., JR. Some Unusual Alcoholic Fermentations..... 1277
- MELHARDT, HANS. Die Wandstärkenberechnung druckbeanspruchter Gefässe aus Schweisstahl-, Flusstahl-, Kupfer- und Aluminiumblech im Apparatenbau. (Book Review, by Riegel)..... 802
- MELLON, M. G. Chemical Publications. Their Nature and Use. (Book Review, by Smith)..... 94
- MELLOR, J. W. Comprehensive Treatise on Inorganic and Theoretical Chemistry. Vol. IX—Arsenic, Antimony, Bismuth, Vanadium, Columbium, and Tantalum. (Book Review, by Hulett)..... 513
- MERKEL, FR., AND BOSNJAKOVIC, FR. Diagramme und Tabellen zur Berechnung der Absorptions-Kaltemaschinen. (Book Review, by Ehrenfeld)..... 802
- MERRILL, H. B., AND BOWLUS, J. L. Absorption by Leather of Sulfur Compounds from Spruce Extract..... 1291
- AND NIEDERCORN, J. G. Effect of Neutralization of Chrome Leather upon Fat Absorption..... 364
- State of Combination of Acid Sulfate in Chrome Leather..... 252
- AND SCHROEDER, HOWARD. Effect of Temperature upon Chrome Tanning..... 1225
- MERZ, A. R., AND ADAMS, J. R. Hygroscopicity of Fertilizer Materials and Mixtures..... 305
- JACOB, K. D., AND ROSS, W. H. Preparation and Properties of the Ammonium Phosphates..... 286
- MEHRING, A. L., AND ROSS, W. H. Preparation of Potassium Nitrate..... 379
- MILLER, A. B., AND ROHRBACH, K. L. Atmospheric Oxidation of Esters of Beta-Eleostearic Acid with Monohydric Alcohols..... 338
- MINAIEFF, M. G., AND WRIGHT, J. H. Mothproofing..... 1187
- MITCHELL, C. A. Allen's Commercial Organic Analysis. Vol. VII—Vegetable Alkaloids. (Book Review, by Carter)..... 709
- MITCHELL, H. H., AND HAMILTON, T. S. Biochemistry of the Amino Acids. (Book Review, by Leech)..... 612
- MITCHELL, W. M. Stainless-Iron Nitric Acid Equipment..... 442
- MOHAMMAD, ALI, AND RANDALL, MERLE. Synthesis and Free Energy of Methane..... 1048

MOHLMAN, F. W., AND BECK, A. J. Disposal of Industrial Wastes. Wastes from Corn Products and Paint and Dye Works.....	205	PETERSON, J. M., AND PICKETT, O. A. Terpenes and Terpene Alcohols. I—Vapor Pressure—Temperature Relationships.....	325
MONRAD, C. C. Correlation of Freezing Points and Vapor Pressures of Aqueous Solutions by Dühring's Rule.....	139	PETERSON, W. H., FRED, E. B., AND ALLGEIER, R. J. Production of Acetic and Lactic Acids from Mill Sawdust.....	1039
AND BADGER, W. L. Boiling Points of Electrolytic Caustic Solutions.....	40	PETROLEUM TECHNOLOGISTS, INSTITUTION OF. Standard Methods of Testing Petroleum and Its Products. (Book Review, by Penniman and Browne).....	992
MORRELL, J. C., AND EGILOFF, GUSTAV. Motor Fuels and Other Products from the Cracking of Wood Tars.....	537	PETTIBONE, E. E., AND BAKER, E. M. Rapid Graphical Method for Calculation of Steam Distillation Problems.....	562
AND FARAGHER, W. F. Cracking of Tars from Cannel Coal.....	1084	PFLUG, HANS, AND WOLMAN, K. H. Zinc Meta-Arsenite—A (Proposed) New American Wood Preservative. [See IND. ENG. CHEM., 19, 878, 993, 1159, 1231, 1340 (1927); 20, 28 (1928)].	705
FARAGHER, W. F., AND ESSER, J. L. Relationship between Calorific Value and Other Characteristics of Residual Fuel Oils and Cracked Residuum. (Correction, 1287).....	933	PFLUKE, F. J. Dry Quencher Operation at Rochester, N. Y.....	457
MORRIS, V. N., AND STREET, J. N. Permeability of Rubber to Air. I—Effect of Temperature, Pressure, and Humidity.....	1215	PICKETT, O. A. Solvents for Waxes.....	767
MOTSINGER, A. V. Stirrer from Windshield Wiper.....	192	AND PETERSON, J. M. Terpenes and Terpene Alcohols. I—Vapor Pressure—Temperature Relationships.....	325
MOULTON, C. R. Meat through the Microscope—Applications of Chemistry and the Biological Sciences to Some Problems of the Meat Packing Industry. (Book Review, by Kerr).....	992	PIERRON, L. Procédés modernes de fabrication de l'acide sulfurique. Chambers de plomb. (Book Review, by Fairlie).....	710
MOYER, A. J., HELLBACH, R., MAY, O. E., AND HERRICK, H. T. Semi-Plant Scale Production of Gluconic Acid by Mold Fermentation.....	1198	PIKE, R. D. Fuel Economy in the Rotary Kiln Burning Portland Cement Clinker.....	307
MÜLLER, W. J. Unterrichtsprobleme in Chemie und chemischer Technologie im Hinblick auf die Anforderungen der Industrie. (Book Review, by Jennings).....	711	AND WEST, G. H. Thermal Characteristics and Heat Balance of a Large Oil-Gas Generator.....	104
MURRAY, C. W., AND BARNES, J. W. Sampling Cleaned Apples for Determination of Arsenical Spray Residue.....	1146	PITKETHLY, R., AND DUNSTAN, A. E. Some Aspects of Cracking.....	643
MURRAY, W. J. Compression of Refinery and Casinghead Gases.....	917	PITMAN, G. A., AND CRUICK, W. V. Hydrolysis of Pectin by Various Microorganisms. A Comparative Study.....	1292
NAOUM, PHOKION. Nitroglycerine and Nitroglycerine Explosives. (Book Review, by Munroe).....	92	PLATT, WASHINGTON. Organization of Industrial Research. Two Examples of the Smaller Industrial Research Organizations.....	655
NELLEN, A. H., AND SELLERS, H. M. Correlation between Geer Oven and Natural Aging of Selected Tire Compounds. Symposium on Aging.....	1019	PLUMMER, W. B., AND BURKE, S. P. Gas Flow through Packed Columns. [See IND. ENG. CHEM., 20, 1196 (1928)] Correction.....	659
NELSON, E. K., AND GREENLEAF, C. A. Investigation of Cane-Molasses Distillery Slop.....	857	PODBIELNIAK, W. J., AND BROWN, G. G. Vaporization of Complex Mixtures.....	238
NELSON, O. A., AND YOUNG, H. D. Vapor Pressures of Fumigants. III—Vapor Pressure of Nicotine. (Correction, 572).....	321	POLLOCK, R. N., AND BROWN, R. L. Composition of Tar from Low-Temperature Carbonization of Utah Coal. II—Heavy Portions.....	773
NEVILLE, H. A., AND THEIS, E. R. Hydration of Animal Skin by Volume-Change Method.....	377	POOLE, J. W. Solubilities of Oils and Waxes in Organic Solvents.....	234
NEWTON, H. P., AND GROGGINS, P. H. 2-Aminoanthraquinone from Chlorobenzene and Phthalic Anhydride.....	369	PORTER, C. W. Molecular Rearrangements. (Book Review, by Johnson).....	1098
NIEDERCORN, J. G., AND MERRILL, H. B. Effect of Neutralization of Chrome Leather upon Fat Absorption.....	364	PRINGLE, H. F., WITH HOLLAND, MAURICE. Industrial Explorers. Word Portraits of Industrial Research Leaders. (Book Review).....	193
NIELSEN, R. F. Free Energy Charts for Predicting Equilibrium Pressures and Concentrations.....	252	PROCHAZKA, G. A. Accounting and Cost Finding for Chemical Industries. (Book Review, by Mullikin).....	195
NIEZT, A. H., KEENAN, R. L., AND SHEPPARD, S. E. Supermolecular State of Polymerized Substances in Relation to Thin Films and Interfaces.....	568	PROVINE, R. W., STORY, L. G., AND BENNETT, H. T. Chemistry of Gum Formation by Cracked Gasoline.....	391
NOACK, F. New Freezing Mixture.....	126	QUAM, G. N. Solubility of Metals in Milk.....	1079
NORRIS, E. R., AND DANIELSON, I. S. Ratfish-Liver Oil as Source of Vitamin A. (Correction, 1299).....	1001	QUINTIN, M., AND AUDUBERT, R. Données numériques sur les colloïdes et l'adsorption. (Book Review, by Mathews).....	703
NORRIS, W. S., AND BIRCH, S. F. Action of Sulfuric Acid on Mercaptans.....	1078	RAINEAU, ANDRÉ, AND AUDIBERT, ETIENNE. Action of Iron Catalysts on Mixtures of Carbon Monoxide and Hydrogen.....	513
NORTH, C. O. Effect of Increased Quantities of Stearic Acid on Tread Abrasions. Stearic Acid Symposium.....	1087	RAMSAY, JAMES, HOLMES, H. N., AND ELDER, A. L. Platinized Silica Gels as Catalysts for Oxidation of Sulfur Dioxide.....	880
OEEMAN, ERIK. Maszanalytische Verfahren und deren Anwendung in Zellstofffabriken; mit Anhang chemische Einwirkung der schwefligen Säuer auf organische Stoffe in der Sulfitablaue. (Book Review, by Koltzoff).....	725	RANDALL, MERLE. Charts for Predicting Equilibria.....	850
OLIN, H. L., AND JEBENS, W. J. Metallic Colloids and Knock Suppression.....	43	AND MOHAMMAD, ALI. Synthesis and Free Energy of Methane.....	571
OLNEY, L. A. Winthrop Carver Durfee. (American Contemporaries).....	390	AND SHIFFLER, W. H. Deposition of Carbon in Reaction between Carbon Dioxide and Hydrogen.....	1048
OLSEN, FRED. Specifications for Cellulose for Use in Manufacture of Smokeless Powder.....	354	RATHBUN, JOHN. Locating the Obstruction in a Clogged Line of the Compressor.....	941
AND AARONSON, H. A. Control of Viscosity of Solutions of Cellulose.....	1178	RAVENSCROFT, EDW. A., JR. Line Coordinate Charts for Representing Chemical Engineering Data.....	1257
OLSEN, J. C. David Wesson. (American Contemporaries).....	290	RAWLINS, F. I. G., AND TAYLOR, A. M. Infra-Red Analysis of Molecular Structure. (Book Review, by Clark).....	1203
OSANN, BERNHARD. Leitfaden für Giessereilaboratorien. (Book Review, by Lundell).....	392	REBER, R. K., AND WINCHESTER, GEORGE. Variation of Surface Tensions of Lubricating Oils with Temperature.....	801
OTHMER, D. F. All-Glass Evaporator.....	376	REED, H. M., JOSLYN, M. A., AND FARLEY, H. B. Effect of Temperature and Time of Heating on Extraction of Color from Red-Juice Grapes.....	1093
Condensation of Steam.....	576	REED, M. C. Effect of Antioxidants in Typical Rubber Stocks.....	1135
PAGE, A. W., AND PAGE, R. O. Influence of Hydrogen-Ion Concentration on the Color of Vegetable Tanned Leather.....	584	REID, M. C. Effect of Antioxidants in Typical Rubber Stocks.....	316
PAGE, R. O., AND PAGE, A. W. Influence of Hydrogen-Ion Concentration on the Color of Vegetable Tanned Leather.....	584	RÉGNAULD, M. Méthodes et procédés métallurgiques. (Book Review, by Johnston).....	513
PALKIN, S., AND WATKINS, H. R. Purification and Preservation of Ether for Anesthetic Use.....	863	REID, E. W., AND HOFMANN, H. E. Cellulose Acetate Lacquers.....	955
PALLEMAERTS, F. A. F. Synthetic Ammonia Plant at Ostend.....	22	Lifting of Varnishes by Lacquer Solvents.....	247
PARKER, H. C. In Behalf of the Patent Office. (See McElroy, 608; Hattis, 609).....	886	1,4-Dioxan.....	695
PARKS, G. S., AND TODD, S. S. Heats of Fusion of Some Paraffin Hydrocarbons.....	1235	REINTHALER, FRANZ. Artificial Silk. (Book Review, by Hoff).....	710
PARR, S. W. Low-Temperature Carbonization of Coal.....	164	REMFRY, J., AND TAPSELL, H. J. Properties of Materials at High Temperatures. 5—The "Creep" Strength of a "High Nickel-High Chromium Steel" between 600° C. and 800° C. (Book Review, by Mitchell).....	887
PARTIDGE, E. M. Chemical Proportioning of Internal Feed Water Treatment. Symposium on Boiler Room Chemistry.....	819	REYNOLDS, A. H., AND FAGER, E. P. Absorption of Oxygen by Alkaline Tannates.....	357
PARTIDGE, E. P. Continuous Process for Plate Glass at the Ford River Rouge Plant.....	1168	REYNOLDS, D. A., AND DAVIS, J. D. Benzene-Pressure Extraction of Coal.....	1295
Developments in Nitrocellulose Production.....	1044	REYNOLDS, D. S., JACOB, K. D., AND HILL, W. L. Ratio of Fluorine to Phosphoric Acid in Phosphate Rock.....	1253
Industrial Measurements. I—Weighing.....	740	Reduction of Tricalcium Phosphate by Carbon.....	1126
Machine-Blown Bottles at 300 Tons a Day.....	638	RHODES, F. H., AND BRAINARD, S. W. Detergent Action of Soap.....	60
Metallic Materials of Construction for Chemical Engineering Equipment.....	471	AND HODGE, H. B., JR. Viscosity Relationships in the System Sulfuric Acid-Nitric Acid-Water.....	142
Present Trends in Dust Recovery.....	446	AND KUHN, W. E. Inhibitors in Action of Acid on Steel.....	1066
Research within an Industry Creates the Demand—and Supplies It AND WHITE, A. H. Mechanism of Formation of Calcium Sulfate Boiler Scale. Symposium on Boiler Room Chemistry.....	37	AND STARR, J. V. Reflection Factors of White Paints.....	596
Boiler Scale. Symposium on Boiler Room Chemistry.....	834	AND WELLS, J. H. Plasticity of Paint.....	1273
Thermal Effects of Boiler Scale. Symposium on Boiler Room Chemistry.....	839	RITTER, G. J. Dissection of Wood Fibrils by Chemical Means.....	289
PATTERSON, G. D., HUNT, J. K., AND WILLIAMSON, R. V. Estimation of Brushing and Flowing Properties of Paints from Plasticity Data.....	1111	ROBERTS, J. K., FORREST, H. O., AND ROETHLI, B. E. Effect of Additions of Lime and Soda Ash to Brackish Water on Corrosion of Iron and Steel.....	33
PELTIER, S. B., AND CHIPMAN, JOHN. Vapor Pressure and Heat of Vaporization of Diphenyl.....	1106	ROBERTSON, G. R. The Trona Enterprise. Plant of the American Potash and Chemical Corporation at Searles Lake.....	520
PERLEY, G. A. Intensive Production of 60° Bé. Sulfuric Acid.....	202	ROBINSON, R. H. New Solvents for Removal of Arsenical Spray Residue.....	1132
AND VARRELL, M. W. Gauze Catalyst in Ammonia Oxidation.....	222	ROETHLI, B. E., FORREST, H. O., AND ROBERTS, J. K. Effect of Additions of Lime and Soda Ash to Brackish Water on Corrosion of Iron and Steel.....	33
AND WHITE, W. P. Oxidation of Ammonia from Crude By-Product Liquors.....	564	ROHRBACH, K. L., AND MILLER, A. B. Atmospheric Oxidation of Esters of Beta-Eleostearic Acid with Monohydric Alcohols.....	338
		ROMMEL, G. M. Farm Products in Industry. (Book Review, by Abrams).....	292
		ROSS, B. B. Richard Newman Brackett. (American Contemporaries).....	885
		ROSS, W. H., MERZ, A. R., AND JACOB, K. D. Preparation and Properties of the Ammonium Phosphates.....	286
		MERZ, A. R., AND MEHRING, A. L. Preparation of Potassium Nitrate.....	379

- ROTH, W. A., AND BIEDERMANN, RUDOLF. Chemiker-Kalender 1929. I—Taschenbuch. II—Dichten, Löslichkeiten, Analyse. III—Theoretischer Teil. (Book Review, by Merz)..... 393
- RUDOLFS, WILHEM. Chemical and Biological Correlations in Polluted Stream..... 256
- RUSSELL, W. F. Early Experiments with Stearic Acid in Rubber Compounding. Stearic Acid Symposium..... 727
- SANDIG, KURT, AND SCHEIBER, JOHANNES. Die künstlichen Harze. (Book Review, by Schmidt)..... 801
- SCARRITT, E. W. Zeolite-Deconcentrator Combination for Boiler Water Purification. Symposium on Boiler Room Chemistry..... 821
- SCHAAD, R. E., AND BOORD, C. E. Effects of Knock-Suppressing and Knock-Inducing Substances on Ignition and Partial Combustion of Certain Fuels..... 756
- EGLOFF, GUSTAV, AND LOWRY, C. D., JR. Oxidation Mechanisms of Paraffin Hydrocarbons..... 785
- SCHAFER, E. R., AND BRAY, M. W. Pulping Flax Straw. VI—Properties of Flax Straw Cellulose and Its Value in the Cellulose Industries..... 278
- AND SIMMONDS, F. A. Physical and Chemical Characteristics of Hemp Stalks and of Seed Flax Straw..... 1241
- SCHAPHORST, W. F., AND BURDITT, A. K. Mechanical Handling of Materials in and about the Chemical Plant—I, 489; II—Belt Conveyors, 649; III—Other Types of Conveyors and Mechanical Handling Equipment..... 844
- SCHIEBER, JOHANNES, AND SANDIG, KURT. Die künstlichen Harze. (Book Review, by Schmidt)..... 801
- SCHLINGMAN, P. F., LONG, J. S., THEIS, E. R., AND CHAMBERLIN, D. S. Studies in the Drying Oils. X—Fumes from Oil Kettles..... 333
- SCHNEIDWIND, RICHARD. Study of Chromium Plating. (Book Review, by Blum)..... 193
- SCHOEPFLE, C. S., AND CONNELL, L. H. Effect of Cathode Rays on Hydrocarbon Oils and on Paper..... 529
- SCHRODER, ARTHUR. Works Control and Laboratory Equipment..... 481
- SCHROEDER, HOWARD, AND MERRILL, H. B. Effect of Temperature upon Chrome Tanning..... 1225
- SCHUCK, HENRIK, AND SOHLMAN, RAGNAR. Nobel—Dynamite and Peace. (Book Review, by Reese)..... 611
- SCHULTZ, J. W. Calculation of Latent Heats of Vaporization of Hydrocarbons and Alcohols..... 557
- SCHUMACHER, E. E., AND BASCH, E. J. Lead-Tin-Cadmium as Substitute for Lead-Tin Wiping Solder..... 16
- BOUTON, G. M., AND FERGUSON, LAWRENCE. Effect of Small Quantities of Third Elements on Aging of Lead-Antimony Alloys. AND FERGUSON, LAWRENCE. Diffusion of Water through Rubber..... 1042
- SCIENTIFIC AND INDUSTRIAL RESEARCH, DEPARTMENT OF. Report of Fuel Research Board for Period Ended 31st March, 1928. (Book Review, by Fieldner)..... 93
- SCOTT, L. K., KITTELBERGER, W. W., LONG, J. S., AND EGGE, W. S. Studies in the Drying Oils. XI—Monomolecular Films of Blown and Heat-Bodied Oils and Their Constituent Fatty Acids and Esters on Water Surfaces..... 950
- SEBRELL, L. B., AND CARSON, C. M. Some Observations on Carbon Black..... 911
- AND CUMMINGS, A. D. Some Observations on Rubbers with Low Nitrogen Content..... 553
- SELLERS, H. M., AND NELLEN, A. H. Correlation between Geer Oven and Natural Aging of Selected Tire Compounds. Symposium on Aging..... 1019
- SEYER, W. F., AND ALLEN, J. S. Iodine Numbers of Lubricating Oils before and after Use in Automobile Engines..... 793
- SHEPPARD, J. R. Stearic Acid in Litharge-Cured Rubber Compounds. Stearic Acid Symposium..... 732
- SHEPPARD, S. E., AND HUDSON, J. H. Contribution to Preparation of Standard Gelatin..... 263
- NIEZT, A. H., AND KEENAN, R. L. Supermolecular State of Polymerized Substances in Relation to Thin Films and Interfaces..... 126
- SHERWOOD, T. K. Drying of Solids—I, 12; II..... 976
- SHIFFLER, W. H., AND RANDALL, MERLE. Deposition of Carbon in Reaction between Carbon Dioxide and Hydrogen..... 941
- SIEMENS & HALSKE, SCIENTIFIC-TECHNICAL DEVELOPMENT DEPARTMENT OF. Wissenschaftliche Veröffentlichungen aus dem Siemens-Konzern. Band VIII, Heft 1, Beryllium-Arbeiten. (Book Review, by Pulsifer)..... 889
- SILBERSTEIN, JAMES. Experimental Demonstration of Refining of Metals by Oxidation..... 172
- SIMMONDS, F. A., AND SCHAFER, E. R. Physical and Chemical Characteristics of Hemp Stalks and of Seed Flax Straw..... 1241
- SIMMONS, C. W., THORPE, M. A., ULLMANN, H. M., AND CHAMBERLIN, D. S. Petroleum Wash-Oil Thickening in the Scrubbing of Coke-Oven Gas..... 313
- SLATER, E. O. Protection of Underground Pipe from Corrosion. A Method Used in Southern California..... 19
- SMALLEY, H. R. Observations on Recent European Fertilizer Developments..... 375
- SMITH, C. N., AND BARTELL, F. E. Adhesion Tension Values of Different Types of Carbon Black against Water and against Benzene..... 1102
- SMITH, D. F., GRIFFIN, H. K., AND ADAMS, J. R. Rate of Burning of Individual Particles of Solid Fuel. Symposium on Boiler Room Chemistry..... 808
- SMITH, W. O., AND FOOTE, P. D. Capillary Phenomena in Non-Circular Cylindrical Tubes..... 567
- SMITHELLS, C. J. Impurities in Metals. Their Influence on Structure and Properties. (Book Review, by Alexander)..... 291
- SNELL, F. D. Chemical Treatment of Trade Waste. V—Waste from Wool Washing..... 210
- SOARES, J. P. DE M. Le caoutchouc. Étude économique et statistique. (Book Review, by Davis)..... 195
- SOHLMAN, RAGNAR, AND SCHUCK, HENRIK. Nobel—Dynamite and Peace. (Book Review, by Reese)..... 611
- SOMERVILLE, A. A., BALL, J. M., AND COPE, W. H. Aging of Vulcanized Rubber under Varying Elongation..... 1183
- SOUDERS, MOTT, JR., AND BROWN, G. G. Gaseous Explosions. VIII—Effect of Tetraethyl Lead, Hot Surfaces, and Spark Ignition on Flame and Pressure Propagation..... 1261
- SOULE, K. J. Aging of Mechanical Rubber Goods Stocks by Various Methods. Symposium on Aging..... 1013
- SOWDER, A. M. Toxicity of Water-Soluble Extractives and Relative Durability of Water-Treated Wood Flour of Western Red Cedar..... 981
- SPANGLER, S. F. Recent Developments in Manufacture of Sulfuric Acid..... 417
- SPELLER, F. N. Corrosion—A Problem in Protective Coatings..... 506
- SPRARRAGEN, W. Welding in the Chemical and Process Industries..... 425
- STALLMANN, O., GUBELMANN, IVAN, AND WEILAND, H. J. 1-Amino-2,4-Dichloroanthraquinone..... 1231
- STANISLAUS, I. V. S., AND MEERBOTT, P. B. American Soap Maker's Guide. An Up-to-Date Treatise on the Art and Science of the Manufacture of Soaps, Candles, and Allied Toilet Preparations. (Book Review, by Campbell)..... 291
- STARR, J. V., AND RHODES, F. H. Reflection Factors of White Paints..... 596
- STAUDINGER, H., AND FROST, W. Anleitung zur organischen qualitativen Analyse. (Book Review, by Marvel)..... 1151
- STEVENS, D. R., AND TABER, G. H. Miscibility of Castor Oil with Gasoline Hydrocarbons. [See IND. ENG. CHEM., 20, 1185 (1928)]..... 42
- STIEGLITZ, JULIUS. Address. Priestley Medal Award..... 897
- Chemistry in Medicine. (Book Review, by Sayers)..... 195
- STINE, C. M. A. Recovery of Bromine from Sea Water. (Correction, 669)..... 434
- Structure of an Industrial Research Organization..... 657
- STORY, L. G., PROVINCE, R. W., AND BENNETT, H. T. Chemistry of Gum Formation by Cracked Gasoline..... 1079
- STREET, J. N., AND MORRIS, V. N. Permeability of Rubber to Air. I—Effect of Temperature, Pressure, and Humidity..... 1215
- STUTZ, G. F. A., AND GAMBLE, D. L. Ultra-Violet Light Transmission Characteristics of Some Synthetic Resins..... 330
- SUCHARDA, EDUARD, AND BOBRANSKI, BOGUSLAW. Halbmikromethoden zur automatischen Verbrennung organischer Substanzen und ebullioskopischen Molekulargewichtsbestimmung. (Book Review, by Chamot)..... 514
- SULLIVAN, E. C. The Many-Sidedness of Glass. Perkin Medal Award..... 177
- SULLIVAN, E. J., ELSENBAST, ARTHUR, AND ELLIOTT, R. D. Use of Super-Cel in the Sugar Refining Industry..... 676
- SURFACE COMBUSTION COMPANY. Data on Industrial Heating Processes. (Book Review)..... 194
- SUTERMHEISTER, EDWIN. Chemistry of Pulp and Paper Making. (Book Review, by Skinner)..... 710
- SWANN, SHERLOCK, JR., KING, E. P., AND KEYS, D. B. Studies in Liquid Partial Oxidation—I..... 1227
- SWANSON, C. O. Wheat Flour and Diet. (Book Review, by Aisberg)..... 194
- TABER, G. H., AND STEVENS, D. R. Miscibility of Castor Oil with Gasoline Hydrocarbons. [See IND. ENG. CHEM., 20, 1185 (1928)]..... 42
- TALBOT, FRANK, AND WATSON, W. N. Progress in Synthetic Organic Chemical Industry in 1928..... 8
- TANNER, F. W. Practical Bacteriology. An Introduction to Bacteriological Technic. (Book Review, by Smith)..... 94
- TAPSELL, H. J., AND REMFRY, J. Properties of Materials at High Temperatures. 5—The "Creep" Strength of a "High-Nickel—High Chromium Steel" between 600° C. and 800° C. (Book Review, by Mitchell)..... 887
- TAYLOR, A. M., AND RAWLINS, F. I. G. Infra-Red Analysis of Molecular Structure. (Book Review, by Clark)..... 801
- TEPPE, J. E. Industrial Development of Searles Lake Brines. (Book Review, by Forrest)..... 709
- THEIS, E. R., LONG, J. S., AND BROWN, C. E. Studies in the Drying Oils. XII—Changes in Linseed Oil, Lipase, and Other Constituents of the Flaxseed as It Matures..... 1244
- AND LUTZ, J. A. Effect of Nitrate Oxygen upon Tannery Effluent and NEVILLE, H. A. Hydration of Animal Skin by Volume Change Method..... 377
- SCHLINGMAN, P. F., LONG, J. S., AND CHAMBERLIN, D. S. Studies in the Drying Oils. X—Fumes from Oil Kettles..... 333
- THERIAULT, E. J. Chemical Aspects of Stream Pollution by Phenols..... 343
- THOM, W. T. Petroleum and Coal—The Keys to the Future. (Book Review, by Fieldner)..... 391
- THOMAS, A. R., AND FELSING, W. A. Vapor Pressures and Other Physical Constants of Methylamine and Methylamine Solutions..... 1269
- THOMAS, A. W., AND KELLY, M. W. Effect of Pretreatment upon Hydrolysis of Hide Powder by Saturated Calcium Hydroxide Solutions..... 701
- Influence of Acids upon Fixation of Wattle Tannin by Hide Powder..... 697
- Syantan Tannage..... 698
- THOMPSON, J. G. Pure Carbon Monoxide for Experimental Purposes..... 389
- THOMPSON, N. J. Auto-Ignition Temperatures of Flammable Liquids. (Correction, 512)..... 134
- THOMSON, G. P., AND THOMSON, J. J. Conduction of Electricity through Gases. Vol. I—General Properties of Ions, Ionization by Heat and Light. (Book Review, by Langmuir)..... 512
- THOMSON, J. J., AND THOMSON, G. P. Conduction of Electricity through Gases. Vol. I—General Properties of Ions, Ionization by Heat and Light. (Book Review, by Langmuir)..... 512
- THORPE, M. A., ULLMANN, H. M., CHAMBERLIN, D. S., AND SIMMONS, C. W. Petroleum Wash-Oil Thickening in the Scrubbing of Coke-Oven Gas..... 313
- TODD, S. S., AND PARKS, G. S. Heats of Fusion of Some Paraffin Hydrocarbons..... 1235
- TRAVERS, M. W. Discovery of the Rare Gases. (Book Review, by Moore)..... 513
- TRAVIS, P. M. Mechanical Dispersion by Means of the Colloid Mill..... 421
- TRIMBLE, H. M., AND FRAZER, G. E. Solubility of Ethylene Glycol. Some Ternary Systems..... 1063
- TRUAX, T. R., BROWNE, F. L., AND BROUSE, DON. Significance of Mechanical Wood-Joint Tests for Selection of Woodworking Glues..... 74
- TRUSLER, R. B. Ethanolamine Soaps..... 685
- TSCHENTKE, H. L., AND CLARK, G. L. Physico-Chemical Studies on Mechanism of Drying of Linseed Oil. I—Changes in Density of Films..... 621
- TUCKER, R. P. Notes on Sublimation of Sulfur between 25° and 50° C..... 44
- TURNER, S. D. Quantitative Relations of Countercurrent Washing Process. [See Silberstein, IND. ENG. CHEM., 20, 899 (1928)]..... 190
- ULLMANN, FRITZ. Encyclopädie der technischen Chemie. Band I—Abasin—Ausdehnung. Band II—Auslaugapparate to Calcium

Carbid. (Book Review, by Parsons) 393; Band III—Calcium Cyanamid—Druckerei. (Book Review, by Parsons).....	889	AND CLARK, C. L. Stability of Metals at Elevated Temperatures. (Book Review, by French).....	193
ULLMANN, H. M., CHAMBERLIN, D. S., SIMMONS, C. W., AND THORPE, M. A. Petroleum Wash-Oil Thickening in the Scrubbing of Coke-Oven Gas.....	313	WHITE, A. H., AND PARTRIDGE, E. P. Mechanism of Formation of Calcium Sulfate Boiler Scale. Symposium on Boiler Room Chemistry.....	834
UNTIEDT, F. H. Some Aspects of Chemical Patent Searches.....	689	Thermal Effects of Boiler Scale. Symposium on Boiler Room Chemistry.....	839
VAIL, J. G. Soluble Silicates in Industry. (Book Review, by Sosman).....	193	WHITE, W. P., AND PERLEY, G. A. Oxidation of Ammonia from Crude By-Product Liquors.....	564
VAN BRUNT, CHARLES. Corrosion—Note on an Apparent Relation of Protective Film to Microstructure.....	352	WHITMORE, W. F., AND GARDNER, W. H. Nature and Constitution of Shellac. I—Preliminary Investigation of Action of Organic Solvents.....	226
VAN DOREN, LLOYD. Studies in Chemical Patent Procedure. I—Hall Patents for Aluminum Production.....	120	AND LINEHAN, R. E. Transparent Emulsions of Some Essential Oils.....	878
VAN HEUCKEROOTH, A. W., GARDNER, H. A., AND KNAUSS, C. A. Light-Colored Condensation Resin.....	57	WIEGAND, W. B. Foreword. Symposium on Aging.....	1008
VARBELL, M. W., AND PERLEY, G. A. Gauze Catalyst in Ammonia Oxidation.....	222	WIEZOVICH, P. J., AND COOPER, C. M. Effects of Temperature and Pressure on Upper Explosive Limit of Methane-Oxygen Mixtures.....	1210
VEREIN DEUTSCHER CHEMIKER, DIVISION OF FUEL AND MINERAL OIL CHEMISTRY OF. Von den Kohlen und den Mineralölen. Ein Jahrbuch für Chemie und Technik der Brennstoffe und Mineralöle. Band I—1928. (Book Review, by Fieldner).....	802	WIG, E. O. Acetonedicarboxylic Acid as Leavening Agent.....	1145
VEREIN DEUTSCHER CHEMIKER, DIVISION OF WATER CHEMISTRY. Vom Wasser. Ein Jahrbuch für Wasserchemie und Wasserreinigungstechnik. Band II. (Book Review, by Rudolfs).....	393	WILEY, H. W. History of a Crime against the Food Law. (Book Review, by Barnard).....	1149
VILLAVECCHIA, G. V. Dizionario di Merceologia e di Chimica Applicata. Vol. I—Abelmosco-Cuscuta. (Book Review, by Matusucci).....	393	WILKINSON, J. A. Calculations in Quantitative Chemical Analysis. (Book Review, by Griffin).....	93
VOGT, W. W. Some Notes on Artificial Aging Tests for Rubber. Symposium on Aging.....	1015	WILLAMAN, J. J., AND EASTER, S. S. Factors Affecting Color in Sorghum Sirup.....	1138
WAESER, BRUNO. Der Betriebs-Chemiker—Ein Hilfsbuch für die Praxis des chemischen Fabrikbetriebs. (Book Review, by Riegel).....	889	WILLIAMS, IRA. Transformation of Energy by Rubber.....	872
WAGNER, ALFRED. Die Riechstoffe und ihre Derivate. Aldehyde. Abteilung I. (Book Review, by Nelson).....	1151	WILLIAMS, R. C., AND YOUNG, H. C. Toxic Property of Sulfur. Chemistry in Relation to Toxic Factors.....	359
WAGNER, RICHARD. Die Bestimmung der Dauerfestigkeit der knetbaren, veredelbaren Leichtmetallegeringen. (Book Review, by Edwards).....	95	WILLIAMSON, R. V. Flow of Pseudoplastic Materials. Relation of Oil Absorption to Consistency of Pigment-Oil Pastes.....	1108
WALDSCHMIDT-LEITZ, ERNST. Enzyme Action and Properties. (Book Review, by May).....	293	PATTERSON, G. D., AND HUNT, J. K. Estimation of Brushing and Flowing Properties of Paints from Plasticity Data.....	1111
WALKER, J. H., AND COLLINS, L. F. Zeolite Water-Treating System of the Beacon Street Heating Plant.....	1020	WILSON, J. A. Chemistry and Leather. Chandler Lecture.....	180
WALL, E. J. Photographic Emulsions. Their Preparation and Coating on Glass, Celluloid, and Paper, Experimentally and on the Large Scale. (Book Review, by Mathews).....	1150	Chemistry of Leather Manufacture. Vol. II. (Book Review, by Gustavson).....	1302
WARDNER, H. S. George C. Stone. (American Contemporaries).....	798	WILSON, M. M., AND WORSTER, F. J. Place of Synthetic Amyl Products among Lacquer Solvents.....	592
WARRICK, L. F. Stream-Pollution Control Activities in Wisconsin.....	261	WILSON, OTTO. Our Foreign Trade in Chemicals and Related Products in 1928.....	300
WASHBURN, E. W. International Critical Tables of Numerical Data, Physics, Chemistry, and Technology. Vol. V. (Book Review, by Edgar) 512; Vol. VI. (Book Review, by LaMer).....	1304	WINCHESTER, GEORGE, AND REBER, R. K. Variation of Surface Tensions of Lubricating Oils with Temperature.....	1093
WATKINS, G. S. Labor Management. (Book Review, by Brissenden).....	194	WINKELMANN, H. A., AND BUSENBERG, E. B. Effect of Stearic Acid on Reclaimed Rubber. Stearic Acid Symposium.....	730
WATKINS, H. R., AND PALKIN, S. Purification and Preservation of Ether for Anesthetic Use.....	863	WOHRZEK, OSKAR. Chemie der Zuckerindustrie. Ein Handbuch für Wissenschaft und Praxis. (Book Review, by Browne).....	94
WATSON, W. N., AND TALBOT, FRANK. Progress in Synthetic Organic Chemical Industry in 1928.....	8	WOLF, E. F. Effect on Concrete of Acid Water from Stored Bituminous Coal.....	908
WATZL, ERNST. Superchlorination and Subsequent Dechlorination over Carbon of Water for Municipal Supply.....	156	WOLMAN, K. H., AND PFLUG, HANS. Zinc Meta-Arsenite—A (Proposed) New American Wood Preservative. [See IND. ENG. CHEM., 19, 878, 993, 1159, 1231, 1340 (1927); 20, 28 (1928)].....	705
WEBBER, H. A. Cellulose from Cornstalks.....	270	WOODS, HUBERT, AND LACEY, W. N. Method of Studying Reactions in Portland Cement Kiln.....	1124
WEICHERTZ, JOSEF. Die Malzextrakte. (Book Review, by Eoff).....	294	WOODWARD, G. E. Silica Gel as a Reagent for Extraction of High-Sulfur Oils from Crude Petroleum.....	693
WEILAND, H. J., AND GUBELMANN, IVAN. Fusion Curve of System Alpha-Naphthylamine—Beta-Naphthylamine.....	1239	Use of Organic Solvents for Extraction of High-Sulfur Oils from Crude Petroleum. Preliminary Paper.....	1233
GUBELMANN, IVAN, AND STALLMANN, O. 1-Amino-2,4-Dichloroanthraquinone.....	1231	WOOLRICH, W. R. Handbook of Refrigerating Engineering. (Book Review, by Ehrenfeld).....	293
WEISER, H. B., editor. Colloid Symposium Monograph. Vol. VI. (Book Review, by Kraemer).....	92	WORK, L. T. Crushing and Pulverization.....	498
WELLS, H. G. Chemical Aspects of Immunity. (Book Review, by White).....	991	WORSTER, F. J., AND WILSON, M. M. Place of Synthetic Amyl Products among Lacquer Solvents.....	592
WELLS, J. H., AND RHODES, F. H. Plasticity of Paint.....	1273	WRIGHT, ARTHUR. Trend of Filtration.....	493
WELLS, S. D. Cellulose from Cereal Straws.....	275	WRIGHT, J. H., AND MINAEFF, M. G. Mothproofing.....	1187
WEST, C. J. Annual Survey of American Chemistry. Vol. III—July 1, 1927, to July 1, 1928. (Book Review, by Cameron).....	92	YEAW, JESSE. Explosive Limits of Industrial Gases.....	1030
Bibliography of Pulp and Paper Making 1900—1928. (Book Review).....	391	YEE, J. Y. Converter for Oxidation of Ammonia with Pure Oxygen.....	1024
Reading List on Papermaking Materials. (Book Review, by Deming).....	195	YODER, J. D. Improved Equipment for Treatment of Feed Water for Modern Steam Boilers. Symposium on Boiler Room Chemistry.....	829
WEST, G. H., AND PIKE, R. D. Thermal Characteristics and Heat Balance of a Large Oil-Gas Generator.....	104	YOE, J. H. Photometric Chemical Analysis. Vol. II—Nephelometry. (Book Review, by Howe).....	512
WHIPPLE, M. C., FAIR, G. M., AND KLEIN, LOUIS. Effect of Pressure upon Sludge Digestion.....	254	YOUNG, H. C., AND WILLIAMS, R. C. Toxic Property of Sulfur. Chemistry in Relation to Toxic Factors.....	359
WHITE, A. E. Stability of Metals at Elevated Temperatures. (See book review by French, 193).....	511	YOUNG, H. D. Evolution of Hydrocyanic Acid from Calcium Cyanide.....	861
		AND NELSON, O. A. Vapor Pressures of Fumigants. III—Vapor Pressure of Nicotine. (Correction, 572).....	321
		ZANDER, H. H. Weltproduktion und Welthandel von ätherischen Ölen und die wirtschaftliche Entwicklung ihrer Industrie. (Book Review, by Nelson).....	393