

- SCARINO, L. See item 2195.
- SCHÄCK, C. H. See item 6881.
6858. SCHACK, C. H., AND BATTY, J. VANCE Concentration of Western Manganese Ore. Min. Cong. Jour., vol. 38, No. 10, October 1952, p. 118.
6859. SCHACK, C. H., AND CLEMMER, J. B. Iron-Ore Resources of the Intermountain States. Trans. 60th Nat. West. Min. Conf., vol. 1, 1957, pp. 211-215.
- SCHAEFFER, J. R. See Items 3692, 7520, 7521.
6860. SCHALLIS, ALVIN. Improved Dolomite Refractories. Rock Products, vol. 44, September 1941, p. 34; Trans. Brit. Ceram. Soc., vol. 41, 1942, p. 9A.
- SCHAPPERT, H. See Items 4638, 7299.
- SCHAUBLE, MARIE. See Items 788, 3888.
6861. SCHEER, MILTON D. Gas-Phase Oxidation of Formaldehyde. Jour. Chem. Phys., vol. 23, 1955, pp. 1357-1358.
6862. ——. Kinetics of the Gas Phase Oxidation of Formaldehyde. 5th Symposium (Internat.) on Combustion. Reinhold Pub. Corp., New York, 1955, pp. 435-445.
- . See Items 4465, 4466.
- SCHEFLAN, LEOPOLD. See Item 8549.
- SCHELLHARDT, M. A. See Item 597.
6863. SCHELLHARDT, M. A., AND RAWLINS, E. L. Comparison of Output and Intake Characteristics of Natural-Gas Wells in the Texas Panhandle Field. Oil Weekly, vol. 32, July 20, 1936, pp. 32, 34-36; July 27, 1936, pp. 25, 28, 30, 32; Aug. 3, 1936, pp. 38, 40, 42-44.
- SCHEROGA, HAROLD. See item 5133.
- SCHIERS, E. R. See item 4024.
6864. SCHIFFMAN, L. E., AND WHITE, E. D. Floating Fines With Kerosine. Coal Age, vol. 56, March 1951, pp. 78-82.
- SCHLAIN, DAVID. See item 6198.
6865. SCHLAIN, DAVID AND KENAHAN, CHARLES B. A Copper Coulometer For Use With Large Currents. Jour. Chem. Ed., vol. 35, p. 144, March, 1958.
6866. ——. Corrosion Resistance of Titanium Alloys Compared With Commercially Pure Titanium. Corrosion, vol. 14, No. 9, September 1958, pp. 405t-408t.
6867. ——. The Role of Oxydees in Decreasing the Passivity of Titanium in Certain Solutions. Corrosion, August 1958, pp. 422-426.
6868. SCHLAIN, DAVID, AND PRATER, JOEL D. Electro-deposition of Gamma Manganese. Trans. Electrochem. Soc., vol. 94, No. 2, August 1948, pp. 58-73.
6869. SCHLAIN, DAVID, AND SMATKO, JOSEPH S. Passivity of Titanium in Hydrochloric Acid Solutions. Jour. Electrochem. Soc., vol. 99, 1952, pp. 417-422.
6870. SCHLAIN, DAVID, KENAHAN, C.B., AND STEELE, D. V. Galvanic-Corrosion Behavior of Ti-Zr in Sulfuric Acid Solutions. Jour. Electrochem. Soc., vol. 102, 1955, pp. 102-109.
6871. SCHLAIN, DAVID, PRATER, JOHN D., AND LUKENS, BEATRICE L. Effect of Impurities on the Electrodeposition of Manganese. Mines Mag., vol. 36, No. 8, August 1946, pp. 354-358; vol. 36, No. 9, September 1946, pp. 401-404, 420.
6872. SCHLAIN, DAVID, PRATER, JOHN D., AND RAVITZ, S. F. Distribution of Impurities in the Crystallization of Ammonium and Potassium Alums. Ind. Eng. Chem., vol. 41, No. 4, April 1949, pp. 834-841.
6873. ——. Electrolytic Refining of Antimony Bullion. Trans. Electrochem. Soc., vol. 95, No. 3, March 1949, pp. 145-160.
6874. ——. Solubilities of Ammonium and Potassium Alums in Water and Densities of the Saturated Solutions. Ind. Eng. Chem., vol. 39, January 1947, pp. 74-76.
6875. SCHLECHTEN, A. W. Trends in Milling Methods. Min. Cong. Jour., vol. 32, February 1946, pp. 99-102.
- . See Items 4554-4557, 4563-4565.
6876. SCHLECHTEN, A. W., KROLL, W. J., AND TERKES, L. A. Distillation Apparatus for the Recovery of Zirconium. U.S. Patent 2,482,127, Sept. 20, 1949.
- SÖHLEICHER, J. A. See item 3265.
- SCHLESINGER, M. D. See item 3699.
6877. SCHLESINGER, M. D., AND BENSON, H. E. Upgrading Fischer-Tropsch Products. Ind. Eng. Chem., vol. 47, October 1955, pp. 2104-2108.
6878. SCHLESINGER, M. D., BENSON, H. E., MURPHY, E. M., AND STORCH, H. H. Chemicals From the Fischer-Tropsch Synthesis. Ind. Eng. Chem., vol. 46, No. 6, June 1954, pp. 1322-1326.
6879. SCHLESINGER, M. D., CROWELL, J. H., LEVA, M., AND STORCH, H. H. Fischer-Tropsch Synthesis in the Slurry Phase. Ind. Eng. Chem., vol. 43, No. 6, 1951, pp. 1474-1478.
6880. SCHLESINGER, M. D., DEMETER, J. J., AND GREYSON, M. Catalyst for Producing Methane From Hydrogen and Carbon Monoxide. Ind. Eng. Chem., vol. 48, No. 1, January 1956, pp. 68-70.
- SCHLOSS, C. M. See item 6212.
6882. SCHLUNDT, H., AND UNDERWOOD, J. E. Separation of Radium and Emantion and Its Determination Electroscopically. Trans. Am. Electrochem. Soc., vol. 34, 1918, pp. 203-209.
6883. SCHMID, MERLE D. Construction of a Model Correlating Four Variables. Rev. Sci. Instr., vol. 8, February 1937, p. 89.
6884. SCHMIDT, L. D. Changes in Coal During Storage. Chap. in Chemistry of Coal Utilization (H. H. Lowry, ed.), John Wiley & Sons, New York, vol. 1, 1945, pp. 627-678.
6885. ——. Cooperative Work of the Federal Bureau of Mines and West Virginia University. West Virginia Eng., vol. 12, No. 4, April 1960, pp. 6-8.
6886. ——. Decreasing Refinery Evaporation Losses of Gasoline. Proc. West. Petrol. Refiners Assoc., Ft. Worth, Tex., Mar. 3, 1928.
6887. ——. Effects of Storage and Oxidation of Coal Upon Coking Properties. Iron and Steel Eng., vol. 18, March 1941, pp. 64-72.
6888. ——. Effect of Tank Colors for Reducing Evaporation Losses. Chap. in The Science of Petroleum, Oxford University Press, England, vol. 1, 1938, pp. 834-830.
6889. ——. Evaporation Losses of Petroleum and Gasoline. Chap. in The Science of Petroleum, Oxford University Press, England, vol. 1, 1938, pp. 828-833.
6890. ——. Evaporation and Storage. Petrol. Eng. Handbook, 2d ed., 1931, pp. 226-237.
6891. ——. Reducing Evaporation Loss in the Petroleum Industry. Chem. Met. Eng., vol. 33, Nov., 1920, pp. 670-671.
6892. ——. Synthesis Gas from Pulverized Coal, Oxygen, and Highly Superheated Steam Is Produced in Pilot Plant. Am. Gas. Jour., vol. 175, No. 1, July 1951, pp. 10-14, 42.

6893. SCHMIDT, L. D. Testing Reduction of Breathing Losses. *Oil Gas Jour.*, vol. 26, Dec. 29, 1927, p. 194; *Nat. Petrol. News*, Dec. 21, 1927, p. 30.
6894. —. Underground Gasification of Coal. *Proc. West Virginia Acad. Sci., Univ. of West Virginia Bull.*, vol. 19, ser. 49, No. 8-I, February 1949, pp. 103-112.
6895. —. Use of Vapor-Tight Tankage in the Oil Fields. *Mid-Continent Year Book*, 1922.
6896. —. Disc. of "Conservation of Gravity in the Production of Oil," by S. F. Mauney, Jr., and George M. Vandaveer. *Oil Gas Jour.*, June 16, 1938, p. 65.
6897. —. Disc. of "Experimental Investigation of the Use of Oil for Treatment of Coal," by R. A. Sherman and J. M. Pilcher. *Trans. ASME*, vol. 60, 1938, pp. 693-696.
- . See items 68, 69, 383, 1859, 1811, 2018, 2071, 5046, 5047, 5834-5836, 6738, 6740, 7089, 7534, 7536.
6898. SCHMIDT, L. D., AND ELDER, J. L. Atmospheric Oxidation of Coal at Moderate Temperatures. I. Rates of the Oxidation Reaction for Representative Coking Coals. *Ind. Eng. Chem.*, Ind. ed., vol. 32, 1940, pp. 240-256.
6899. SCHMIDT, L. D., AND HOLDEN, J. H. Method for Filling Cavities With Granular Solids. U.S. Patent 2,710,232, June 7, 1955.
6900. SCHMIDT, L. D., AND WILHELM, C. J. Gasoline Bulk-Storage Stations. Reduction of Evaporation Losses. *Petrol. Times*, vol. 35, May 16, 1930, pp. 636-637, 639.
6901. SCHMIDT, L. D., ELDER, J. L., AND DAVIS, J. D. Atmospheric Oxidation of Coal at Moderate Temperatures. Effect of Oxidation on the Carbonizing Properties of Representative Coking Coals. *Ind. Eng. Chem.*, Ind. ed., vol. 32, 1940, pp. 548-555.
6902. —. Influence of Storage on Caking and Coking Properties of Coal. *Ind. Eng. Chem.*, vol. 35, 1943, pp. 150-155.
6903. —. Oxidation of Coal at Storage Temperatures. Effect on Carbonizing Properties. *Ind. Eng. Chem.*, vol. 28, November 1936, pp. 1346-1353.
6904. SCHMIDT, L. D., MCGEE, J. P., AND SLOANE, M. C. A Pilot Plant for Gasifying Powdered Coal Enclosed in Oxygen and Steam. *Chem. Eng. Prog.*, vol. 44, No. 10, October 1948, pp. 737-744.
6905. SCHMIDT, L. D., THORNE, H. M., AND WILHELM, C. J. Engineers Recommend Oil-Field Brine Disposal in Selected Surface Streams. *Oil Gas Jour.*, vol. 33, Mar. 7, 1935, pp. 15-16; *Petrol. World*, vol. 32, April 1935, pp. 103-106.
- SCHNEE, V. H. See item 2961.
- SCHNEIDER, E. J. See item 4359.
6907. SCHOEN, L. Photodecomposition of Formaldehyde. 5th Symposium on Combustion, Pittsburgh, 1954 (Pub. 1955), pp. 780-790.
6908. —. The Photodecomposition of Formaldehyde; The Stability of the HCO Radical. *Jour. Chem. Phys.*, vol. 24, May 1956, pp. 1094-1096.
- . See items 4464-4466.
- SCHOENFELD, M. H. See item 7376.
- SCHOENEWEIS, F. J. See items 7280, 7420.
6909. SCHOFF, JAMES M. Botanical Aspects of Coal Petrology: Coal from the Coos Bay Field in Southwestern Oregon. *Am. Jour. Botany*, vol. 34, No. 6, June 1947, pp. 335-345.
6910. —. Variable Coalification—the Processes Involved in Coal Formation. *Bull. Geol. Soc. America*, vol. 58, No. 12, part 2, 1947, pp. 1225-1226.
6911. SCHOFF, JAMES M., AND CROSS, AUREAL T. A Glacial Peat Deposit Near Pittsburgh. *Am. Jour. Sci.*, vol. 245, No. 7, July 1947, pp. 421-433.
- SCHRAMM, L. W. See items 1163, 3216.
6912. SCHRECK, A. E. Barite. *Sec. in Metal, Mineral and Mineral Fuel Review for 1958*. *State Geologists Jour.*, vol. 11, No. 2, October 1959, p. 11.
6913. —. Lithium. *Eng. Min. Jour.*, vol. 160, No. 2, February 1959, p. 105.
6914. —. Lithium. *Sec. in Metal, Mineral and Mineral Fuel Review for 1958*, *State Geologists Jour.*, vol. 11, No. 2, October 1959, p. 25.
- SCHREIBER, S. See item 1195.
6915. SCHRENK, H. H. The Alpha Chi Sigma Safety Program. Occupational Disease Hazards. II. Hexagon, vol. 37, No. 1, September 1946, pp. 15-17.
6916. —. Bureau of Mines Midget Impinger Dust Sampling Apparatus. *Min. Cong. Jour.*, vol. 24, No. 8, August 1938, pp. 23-25.
6917. —. How to Assure Safe Use of Methyl Chloride. *Standardization*, vol. 20, No. 3, March 1949, p. 77.
6918. —. Interpretation of Permissible Limits in the Breathing of Toxic Substances in the Air. *Am. Ind. Hyg. Assoc. Quart.*, vol. 8, No. 3, September 1947, pp. 55-60.
6919. —. Methods for Detection and Protection Against Toxic Gases. *Trans. 21st Ann. Conf. West. Pennsylvania Safety Coun. and Am. Soc. of Safety Eng., Western Pennsylvania Chapter*, April 23-25, 1946, pp. 38-42.
6920. —. National Silicosis Conference Report. *U.S. Dept. of Labor Bull.* 21, 1938, Part I, 112 pp.; Part II, 62 pp.; Part III, 80 pp.; Part IV, 64 pp.
6921. —. Occupational Disease Hazards—Another Safety Consideration. *Hexagon*, vol. 35, No. 5, May 1946, pp. 272-273.
6922. —. Rapid Methods for the Determination of Air Dustiness. *Am. Jour. Pub. Health*, vol. 30, No. 10, Oct. 1940, pp. 1183-1189.
6923. —. Safe Use of Refrigerants. *Proc. Nat. Safety Cong.*, 1941, pp. 628-631.
6925. —. Standard Helps Control Methanol Exposure. *Ind. Stand.*, vol. 15, No. 6, June 1944, pp. 116-117.
6926. —. Tests and Investigations by the Health Branch Relating to Health and Safety in Coal Mines. Pres. at 5th Internat. Conf., Directors of Mine Safety Research, Pittsburgh, Pa., Sept. 20-25, 1948.
6927. —. Universal (Type N) Gas Mask for Protection Against Gases Encountered at Fires. New York Fire Chiefs' Man.—Proc. Ann. Meeting New York State Assoc. of Fire Chiefs, May 1944, pp. 63-77.
6928. —. Rev. of "The Analytical Chemistry of Industrial Poisons, Hazards, and Solvents," by Morris Jacobs. *Jour. Am. Chem. Soc.*, vol. 66, 1944, p. 1993.
- . See items 360, 545, 546, 910, 4141, 4827, 5905, 5906, 6000-6002, 6040, 6849, 6852, 7264, 7265, 8544, 8550, 8552-8556.
6929. SCHRENK, H. H., AND BERGER, L. B. Composition of Diesel Engine Exhaust Gas. *Am. Jour. Pub. Health*, vol. 31, No. 7, July 1941, pp. 669-681.
6930. —. Oxygen Absorption by Oil-Well Drilling Mud. *Proc. API*, vol. 18, 1937, pp. 40-41.
6931. SCHRENK, H. H., AND PEARCE, S. J. Significance of Bureau of Mines Approval in Selection of Respiratory Devices. *Safety Eng.*, vol. 93, No. 1, January 1947, pp. 54-59.

6932. SCHRENK, H. H., AND PEARCE, S. J. Testing Respiratory Protective Devices. *Trans. 34th Nat. Safety Cong.*, vol. 1, 1940, pp. 145-152.
6933. SCHRENK, H. H., AND YANT, W. P. Toxicity of Dioxan. *Jour. Ind. Hygiene and Toxicol.*, vol. 18, September 1936, pp. 448-460.
6934. SCHRENK, H. H., PATTY, F. A., AND YANT, W. P. Acute Response of Guinea Pigs to Vapors of Some New Commercial Organic Compounds. VII. Dichloroethyl Ether. *U.S. Pub. Health Repts.*, vol. 48, No. 46, Nov. 17, 1933, pp. 1389-1398.
6935. ——. Studies in Asphyxia. II. Blood Chemistry Changes Resulting From Comparatively Rapid Asphyxia by Atmospheres Deficient in Oxygen. *Pub. Health Repts.*, vol. 47, Jan. 15, 1932, pp. 130-146.
6936. ——. Acute Response of Guinea Pigs to Vapors of Some New Commercial Organic Compounds. X. Hexanone (Methyl Butyl Ketone). *U.S. Pub. Health Repts.*, vol. 51, May 15, 1936, pp. 624-631.
6937. SCHRENK, H. H., YANT, W. P., AND SAYERS, R. R. A New Procedure for the Control of Benzene Exposure. *Jour. AMA*, vol. 107, Sept. 12, 1936, pp. 849-852; disc., p. 852.
6938. SCHRENK, H. H., YANT, W. P., CHORNYAK, JOHN, AND PATTY, F. A. Acute Response of Guinea Pigs to Vapors of Some New Commercial Organic Compounds. XIII. Methyl Formate. *U.S. Pub. Health Repts.*, vol. 51, Sept. 25, 1936, pp. 1329-1337.
6939. SCHRENK, H. H., YANT, W. P., PEARCE, S. J., AND SAYERS, R. R. Comparative Physiological Effects of Pure Commercial and Crude Benzenes. *Jour. Ind. Hygiene and Toxicol.*, vol. 22, No. 2, February 1940, pp. 53-63.
6940. SCHRENK, H. H., YANT, W. P., PEARCE, S. J., PATTY, F. A., AND SAYERS, R. R. Absorption, Distribution, and Elimination of Benzene by Body Tissues and Fluids of Dogs Exposed to Benzene Vapor. *Jour. Ind. Hygiene and Toxicol.*, vol. 23, No. 1, January 1941, pp. 20-34.
- SCHROEDER, F. W. See items 469, 5830, 8370.
6941. SCITTOEDER, W. C. Bureau of Mines Specialist Tells ASME of German Synthetic Liquid Fuels Manufacturing. *Black Diamond*, vol. 155, No. 13, Dec. 22, 1945, pp. 46, 48; *Gas Age*, vol. 96, No. 11, Nov. 29, 1945, p. 21; *Am. Gas Jour.*, vol. 163, No. 6, December 1945, p. 28; *Oil Gas Jour.*, vol. 44, No. 29, Nov. 24, 1945, pp. 112, 115, 116.
6942. ——. Chemicals, Pipeline Gas, and Liquid Fuels From Coal. *Trans. 10th Ann. Anth. Conf.*, May 8-9, 1952, pp. 37-58.
6943. ——. Capture of German Records Will Boost United States Synthetic-Fuel Development. *Oil Gas Jour.*, vol. 44, June 30, 1945, p. 78.
6944. ——. Causes and Prevention of Embrittlement in Boilers. *Ry. Mech. Eng.*, vol. 114, May 1940, pp. 182-185.
6945. ——. Comparison of Major Processes for Synthetic Liquid Fuels: Oil-Shale Coal Hydrogenation or Fischer-Tropsch From Natural Gas or Coal? *Chem. Ind.*, vol. 62, No. 4, 1948, pp. 574-577, 682.
6946. ——. Conversion of Coal to Oil; From Coal to Gas to Oil; Synthetic Fuels in Great Britain and the United States. Statement Before War Minerals Subcommittee, Committee on Public Lands and Surveys, U.S. Senate, 78th Cong., 1st sess., on S. 1243, Pittsburgh, Pa.; Aug. 6, 1943, pp. 213-224; Sheridan, Wyo.; Aug. 11, 1943, pp. 437-438.
6947. ——. Fischer-Tropsch Alcohol. *Chem. Eng. Prog.*, vol. 44, No. 1, January 1948, pp. 15-17.
6948. ——. Fuels and Fuel Research in Great Britain During the War. *Mech. Eng.*, vol. 65, December 1943, pp. 881-884, 892; author's closure, vol. 66, May 1944, p. 333; *Gas Age*, vol. 92, Dec. 10, 1943, p. 38; *Oil Gas Jour.*, vol. 42, Dec. 9, 1943, pp. 69-70.
6949. ——. Investigations by the United States Government Technical Oil Mission. *Chem. Met. Eng.*, vol. 53, January 1946, p. 220.
6950. ——. Manufacturing German Synthetic Liquid Fuels. *Gas Age*, vol. 96, Nov. 20, 1945, p. 21.
6951. ——. Mining Demonstration—Experimental Oil-Shale Mine. *Armed Forces Chem. Jour.*, vol. 3, October 1949, pp. 19-21.
6952. ——. Oil-Coal Mixture Proposed as Emergency Fuel for Industrial Oil Furnaces. *Nat. Petrol. News*, vol. 34, Oct. 28, 1942, sec. 2, pp. R303-R304, R308.
6953. ——. Opening Remarks, First International Conference on the Underground Gasification of Coal. *Proc. 1st Internat. Conf. on the Underground Gasification of Coal*, Birmingham and Gorgas, Ala., Alabama Power Co., Birmingham, Ala., 1952, pp. 7-8.
6954. ——. Organizing the Classification of Industrial Waters. Introduction to Round-Table Discussion. *Proc. ASTM*, vol. 44, 1944, pp. 1051-1056; author's closure, p. 1094.
6955. ——. Petroleum Reserves vs. Petroleum Conservation. *Chem. Eng.*, vol. 55, February 1948, p. 274.
6956. ——. Prototype Plants for Synthetic Liquid Fuels. *Am. Gas Assoc. Ann. Conv. of Operating Sec.*, Oct. 27-30, 1952, 11 pp.
6957. ——. Significance of Process for Direct Gasification of Coal. Chap. in *Gasification and Liquefaction of Coal*, AIME, New York, 1953, pp. 213, 214.
6958. ——. Synthetic Fuel Production. *Proc. United Nations Sci. Conf. on Conservation and Utilization of Resources, Fuels and Energy Resources* 1951, vol. 3, pp. 83-93; *Petrol. Eng.*, vol. 22, May 1950, pp. A-53, A-56, A-60, A-64, A-68, A-69.
6959. ——. Synthetic Liquid Fuels in the United States. *Mech. Eng.*, vol. 69, No. 2, December 1947, pp. 989-995; *Oil Gas Jour.*, vol. 46, No. 31, 1947, pp. 128.
6960. ——. Statement on Synthetic Liquid Fuels. Hearings Before House of Representatives Special Subcommittee on Armed Services, 80th Cong., 2d sess., Feb. 23, 1948, pp. 616-637.
6961. ——. Statement on Synthetic Liquid Fuels published in Hearings Before the Subcommittee on Mines and Mining of the Committee on Public Lands, House of Representatives, 80th Cong., 1st sess., on H.R. 2161. Demonstration Plants to Produce Synthetic Liquid Fuels, Committee Print 14, June 9, 1947, pp. 2-4.
6962. ——. Statement on Synthetic Liquid Fuels. Hearing Before House Committee on Interstate and Foreign Commerce, 80th Cong., 2d sess., Mar. 4 and 5, 1948, pp. 8-36.
6963. ——. Statement on Synthetic Liquid Fuels. Hearings Before a Subcommittee of the Committee on Interior and Insular Affairs, U.S. Senate, Synthetic Liquid Fuels, S. 134, 80th Cong., 2d sess., January 1948, pp. 8-14.
6964. ——. Synthesis of Chemicals From Coal and Oil Shale. *Chem. Eng. News*, vol. 29, 1951, p. 1830.
6965. ——. Synthetic Liquid and Gaseous Fuels From Coal. *Utilization*, vol. 4, December 1950, pp. 41-46.
6966. ——. Synthetic Liquid Fuels Can Assure Enough Oil. *World Oil*, vol. 129, July 1949, p. 30.
6967. ——. Synthetic Liquid Fuels and Lubricants in Germany. *Gas Age*, vol. 96, Nov. 20, 1945, p. 21; *Am. Gas Jour.*, vol. 103, December 1945, p. 28.

6988. SCHROEDER, W. C. Synthetic Liquid Fuels in the United States. Steam Eng., vol. 17, No. 197, February 1948, pp. 180-182, 188. Mech. Market, No. 2470, Mar. 19, 1948, pp. 141-142; No. 2471, Mar. 26, 1948, 157. Mech. Eng., vol. 70, No. 6, June 1948, pp. 555-556.
6989. ——. Synthetic Liquid Fuel: Two Coal-to-Oil Demonstration Plants Are Producing Liquid Fuels From Coal on the Minimum Scale, Enabling the Bureau of Mines To Make Available to Industry the Necessary Cost and Engineering Data for Commercial Operations. Armed Forces Chem. Jour., vol. 3, July 1949, pp. 12, 13.
6990. ——. Synthetics in Defense. Marketing and Refining Div., and Am. Petrol. Inst., Los Angeles, Calif., Nov. 15, 1950, 22 pp.
6991. ——. Technical Oil Mission Studies German Petroleum Research Activities. Oil Gas Jour., vol. 44, Nov. 24, 1945, p. 112.
6992. ——. Use of Coal, Oil Shale for Liquid Fuel Needs Urged. Nat. Petrol. News, vol. 42, No. 2, 1950, p. 16.
6993. ——. Use of Mixtures of Oil and Coal in Boiler Furnaces. Mech. Eng., vol. 64, November 1942, pp. 793-798; vol. 65, April 1943, p. 284; Steam Eng., vol. 12, May 1943, pp. 217-219; vol. 13, October 1943, pp. 3-5. Iron and Coal Trades Rev., vol. 147, August 13, 1943, p. 244.
6994. ——. Water Treatment To Prevent Intercrystalline Cracks in Locomotive Boilers. Off. Proc. Master Boilermakers' Assoc., 1941, pp. 131-136.
6995. ——. Rev. of "Our Oil Resources," Leonard M. Fanning (ed.). Chem. Eng. News, vol. 24, No. 20, Oct. 25, 1946, p. 2844.
6996. ——. Rev. of "Synthetic Petroleum From the Synthine Process," by B. H. Well and J. C. Lane. Chem. Eng. News, vol. 20, No. 39, Sept. 27, 1948, p. 2918.
- See items 583-586, 2435, 2504, 5633, 5878, 5894-5898.
6997. SCHROEDER, W. C., AND BERK, A. A. Action of Solutions of Sodium Silicate and Sodium Hydroxide at 250°C. on Steel Under Stress. Metals Technol., vol. 3, January 1936, 14 pp.; Trans. AIME, Iron and Steel Div., vol. 120, 1936, pp. 387-400; disc., pp. 400-403; Tech. Pub. 601, 1936, 14 pp.; Combustion, vol. 7, February 1936, pp. 20-33; Power Plant Eng., vol. 40, February 1936, p. 105; Engineering, vol. 141, May 22, 1936, pp. 573-574.
6998. ——. Caustic Embrittlement; Abstracts of Intercrystalline Cracking of Boiler Steel and Its Prevention. Symposium on Caustic Embrittlement by Joint Research Committee on Boiler Feedwater Studies, Subcommittee G. Metal. Prog., vol. 42, 1942, p. 1134.
6999. ——. Comparison of Hydrogen-Embrittlement and Selective-Corrosion Theories on Intercrystalline Cracking. Joint Research Committee on Boiler Feedwater Studies, Subcommittee G, 1941, 19 pp.
7000. ——. Embrittlement Detector Tests on Alloy Steel. Prog. Rept. 1 to Locomotive Inst., 1940, 12 pp.
7001. ——. Method of Protecting Boilers and the Like Against Embrittlement. U.S. Patent 2,297,870, Sept. 23, 1942.
7002. ——. Summary of Papers Composing the Embrittlement Symposium. ASME Prepr. 58, 1941, 4 pp.; Trans. ASME, vol. 64, July 1942, pp. 427-430.
7003. ——. Water Treatment to Prevent Embrittlement Cracking. U.S. Patent 2,454,258, Nov. 16, 1948.
7004. ——. Disc. of "Effect of Concentrated Sodium Hydroxide on Boiler Steel Under Tension," by A. S. Perry. Trans. ASME, vol. 58, 1936, p. 493.
6985. ——. Disc. of "A Method for Embrittlement Testing of Boiler Waters," by Frederick G. Straub and T. A. Bradbury. Proc. ASTM, vol. 38, Part II, 1938, pp. 624-629.
6986. SCHROEDER, W. C., AND FIELDNER, A. C. American Advances in the Manufacture of Synthetic Liquid Fuels. Internat. Chem. Eng. and Proc. Ind., vol. 31, No. 2, November 1950, pp. 503-506.
6987. ——. Synthetic Liquid Fuels, 4th World Pow. Conf., London, 1950, sec. C 2, paper 1, 11 pp.
6988. SCHROEDER, W. C., AND FRIES, M. H. Foreword to Proceedings First International Conference on the Underground Gasification of Coal, Birmingham and Gorgas, Ala. Alabama Power Co., Birmingham, Ala., 1952, p. 6.
6989. SCHROEDER, F. W., AND LARSEN, B. M. Effect of the Open-Hearth Process on Refractories. AIME Pamphlet 1578-C; Min. and Met., vol. 7, August 1926, p. 350; Fuels and Furnaces, vol. 4, November 1926, pp. 1333-1334.
6990. ——. Open Hearth Steel Furnace Conditions as They Affect Refractories. Fuels and Furnaces vol. 4, 1926, pp. 705-706.
6991. SCHROEDER, W. C., AND MOTE, RICHARD H. Dimensions and Changing Patterns of Supply and Demand. Economics of the Mineral Industries, AIME, New York, N.Y., July 1959, pp. 351-381.
6992. SCHROEDER, W. C., AND ORCHIN, M. Unit Processes; Oxo Reaction. Chem. Eng., vol. 58, No. 3, March 1951, pp. 135-136.
6993. SCHROEDER, W. C., AND PARTRIDGE, E. P. Effect of Solutions on the Endurance of Low-Carbon Steel Under Repeated Torsion at 482° F. (250° C.). Trans. ASME, vol. 58, April 1936, pp. 223-231; disc., pp. 494-496.
6994. ——. Solubility of Sodium Sulphate and Embrittlement. Combustion, vol. 5, December 1933, p. 11.
6995. ——. Disc. of "The Study of Calcium Sulphate Scale Prevention at High Steam Pressures" by Frederick G. Straub. Trans. ASME, vol. 56, May 1934, p. 381.
6996. SCHROEDER, W. C., AND RALSTON, O. C. Dissolved Oxygen and Embrittlement. Power, vol. 80, March 1930, p. 145.
6997. SCHROEDER, W. C., BENSON, H. E., AND FIELD, J. H. Hydrocarbon Synthesis and Hydroformylation. Chap. in Unit Processes in Organic Synthesis, P. H. Groggins, ed., McGraw-Hill Book Co., Inc., New York, N.Y., 1958, pp. 651-693.
6998. SCHROEDER, W. C., BERK, A. A., AND FELLOWS, C. H. Intercrystalline Cracking in Boiler Steel. Jour. Am. Water Works Assoc., vol. 30, April 1938, pp. 679-694.
6999. SCHROEDER, W. C., BERK, A. A., AND GABELL, ALTON. Solubility Equilibria of Sodium Sulphate at Temperatures from 150° to 350° C. II. Effect of Sodium Hydroxide and Sodium Carbonate. Jour. Am. Chem. Soc., vol. 58, May 1936, pp. 843-849.
7000. ——. Solubility Equilibria of Sodium Sulphate at Temperatures from 150° to 350° C. III. Effect of Sodium Hydroxide and Sodium Phosphate. Jour. Am. Chem. Soc., vol. 59, October 1937, pp. 1783-1790.
7001. SCHROEDER, W. C., BERK, A. A., AND O'BRIEN, R. A. Bureau of Mines Investigations on the Intercrystalline Cracking of Boiler Steel. Am. Ry. Assoc. Bull. 404, June-July 1938, pp. 76-90; Ry. Mech. Eng., vol. 112, 1938, pp. 331-336, 339; Iron and Coal Trades Rev., vol. 136, 1938, pp. 53, 218.

7002. SCHROEDER, W. C., BERK, A. A., AND O'BRIEN, R. A. The Embrittlement Alarm and the Embrittlement Detector. Joint Research Committee on Boiler Feedwater Studies, Subcommittee 6, 1939, 49 pp.
7003. ——. Embrittlement Detector. Combustion, vol. 12, August 1940, pp. 19-21.
7004. ——. Intercrystalline Cracking of Steel in Aqueous Solution. Metals and Alloys, vol. 8, November 1937, pp. 320-330.
7005. ——. Intercrystalline Cracks in Locomotive Boiler. Assoc. Am. Railroads, Circ. D. V.-080, 1940, 44 pp; Ry. Age, vol. 100, July 6, 1940, pp. 25-28.
7006. ——. Protecting Steel Against Intercrystalline Attack in Aqueous Solution. Trans. ASME, vol. 60, RP, 1938, pp. 35-42; Combustion, vol. 9, February 1938, pp. 27-30.
7007. SCHROEDER, W. C., BERK, A. A., AND PARTRIDGE, E. P. Effect of Solution Composition on the Failure of Boiler Steel Under Static Stress at 250° C. Proc. ASTM, vol. 30, pt. 2, 1930, pp. 721-750; disc., pp. 751-754.
7008. ——. Solubility Equilibrium of Sodium Sulphate at Temperatures from 150° to 350° C. IV. Comparison of Evaporation and Equilibrium Solubility Values. Jour. Am. Chem. Soc., vol. 59, October 1937, pp. 1790-1795.
7009. ——. Use of Solubility Data to Control the Deposition of Sodium Sulfate or its Complex Salts in Boiler Waters. Proc. ASTM, vol. 30, pt. 2, 1930, pp. 755-760.
7010. SCHROEDER, W. C., BERK, A. A., AND STODDARD, C. K. Embrittlement Detector Testing on Boilers. Power-Plant Eng., vol. 45, August 1941, pp. 76-79.
7011. SCHROEDER, W. C., GABRIEL, ALTON, AND PARTRIDGE, E. P. Solubility Equilibria of Sodium Sulphate at Temperatures of 150° to 350° C. I. Effect of Sodium Hydroxide and Sodium Chloride. Jour. Am. Chem. Soc., vol. 57, September 1935, pp. 1539-1546.
7012. SCHUETTE, C. N. Inductor Coils for the High Frequency Furnace. Ind. Eng. Chem., anal. ed., vol. 1, July 15, 1929, pp. 141-144.
7013. ——. Sampling and Estimation of Quicksilver Ore. Min. and Sci. Press, vol. 122, 1921, pp. 203-295.  
——. See Item 1980.
7014. SCHUETTE, C. N., AND MAIER, C. G. The High Frequency Induction Furnace for Chemical Preparations Above 1000° C. Jour. Electrochem. Soc., vol. 54, 1928.
- SCHULTZ, HAROLD. See Items 1140, 3181-3185.
- SCHULTZ, J. L. See Item 2754.
- SCHUNTER, W. E. See Item 1448.
7016. SCHURECHT, H. G. Automatic Direct-Reading Laboratory Scale for Weighing Briquettes. Jour. Am. Ceram. Soc., vol. 6, 1923, pp. 491-495.
7017. ——. Behavior of Firebrick in Malleable-Iron Bungs. Jour. Am. Ceram. Soc., vol. 3, 1920.
7018. ——. Burning Properties of Some American Refractory Clays. Trans. Am. Ceram. Soc., vol. 19, 1917, pp. 248-253.
7019. ——. Direct-Reading Overflow Volumeter. Jour. Am. Ceram. Soc., vol. 3, No. 9, 1920, pp. 730-734.
7020. ——. Effect of Electrolytes on Properties of Graphite Crucible Bodies. Jour. Am. Ceram. Soc., vol. 2, 1919, pp. 443-450.
7021. ——. Effect of Electrolytes on Some Properties of Clays. Jour. Am. Ceram. Soc., vol. 1, 1918, pp. 201-216.
7022. ——. Effect of Firing Temperatures on Strength of Fireclay and Stoneware Bodies. Jour. Am. Ceram. Soc., vol. 4, 1921, pp. 360-374.
7023. ——. Elutriation Tests on American Kaolins. Jour. Am. Ceram. Soc., vol. 3, No. 5, 1920, pp. 355-378.
7024. ——. Experiments in Dead-Burning Dolomite and Magnesite. Jour. Am. Ceram. Soc., vol. 4, 1921, pp. 127-151.
7025. ——. Fireclays of Maryland—Testing of the Clays. Maryland Geol. Survey, vol. 11, 1922, pp. 409-539.
7026. ——. Machine for Testing the Hot-Crushing Strength of Fire-Bricks. Jour. Am. Ceram. Soc., vol. 2, 1919, pp. 602-607.
7027. ——. Mechanical Movement of Wafer Through Certain Clays and its Control. Jour. Am. Ceram. Soc., vol. 5, No. 12, 1922, pp. 928-936.
7028. ——. Microscopic Examination of Mineral Constituents of Some American Clays. Jour. Am. Ceram. Soc., vol. 5, No. 1, 1922, pp. 3-24.
7029. ——. Properties of Some Ohio and Pennsylvania Stoneware Clays. Jour. Am. Ceram. Soc., vol. 1, 1918, pp. 207-286.
7030. ——. Pycnometer Operated as a Volumeter. Jour. Am. Ceram. Soc., vol. 1, 1918, pp. 556-558.
7031. ——. Relation of Salt Today in Purification of Clays. Trans. Am. Ceram. Soc., vol. 19, 1917, pp. 400-478.
7032. ——. Some Properties of Bodies and Glazes Used in Pottery Industry. With Notes on Lustres and Adventure Glazes. New Jersey Ceramist, vol. 1, No. 1, March 1921.
7033. ——. Sedimentation as a Means of Classifying Extremely Fine Clay Particles. Jour. Am. Ceram. Soc., vol. 4, 1921, pp. 812-821.
7034. ——. Separation of Lime From Dolomite. Jour. Am. Ceram. Soc., vol. 4, July 1921, pp. 558-569.
- 7034a. ——. Experiments in Dead-Burning Dolomite. Jour. Am. Ceram. Soc., vol. 2, 1919, pp. 291-305.
7035. ——. Use of Sulphuric Acid in Sedimentation of Kaolins. Trans. Am. Ceram. Soc., vol. 19, 1917, pp. 130-135.  
——. See item 7547.
7036. SCHURECHT, H. G., AND DOUDA, H. W. Behavior of Firebrick in Malleable-Iron Furnace Bungs. Jour. Am. Ceram. Soc., vol. 6, December 1923, p. 1232-1241.
7037. ——. Properties of Some Clay-Like Materials of the Bentonite Type. Jour. Am. Ceram. Soc., vol. 6, 1923, pp. 940-948.
7038. SCHURR, SAM H. (ed.) Economic Aspects of Atomic Power; an Exploratory Study. Cowles Commission for Research in Economics, Princeton University Press, 1950, 280 pp.
- SCHWARTZ, C. H. See Items 1432, 1435-1437, 1506, 5888.
- SCHWARTZ, F. G. See Items 8136, 8137, 8140.
7040. SCHWARTZ, F. G., GOODING, R. M., AND ECCLESTON, B. H. Superfractionation Studies; Naphtha From Santa Barbara, Venezuela, Crude Oil. Ind. Eng. Chem., vol. 40, November 1948, pp. 2160-2172.
- SCHWARZENBEK, F. X. See Items 4455, 7578.
7043. SCHWARZENBEK, F. X., ROSS, J. S., AND CARLE, J. H. Petroleum Engineering in the Slick Oil Field, Creek County, Okla. Distributed by the Bartlesville, Okla., Chamber of Commerce. 1922, 67 pp.
- SCHWERIN, L. See Item 5061.
- SCLATER, K. E. See Item 522.
7044. SCLATER, K. C. Gas as a Factor in the Production of Oil. Min. and Met., vol. 7, April 1926, pp. 160-171.

7045. SCOLLON, T. R. Are We Really Running Out of Fossil Fuels? *Power Ind.*, vol. 74, No. 6, June 1958, pp. 12-13, 16.  
SCOTT, ARDEN. See item 6177a.
7046. SCOTT, D. W. Technique for Photographing Different Subjects Through a Petrographic Microscope. *AIME Tech. Pub.* 2377, May 1948, 1 p.  
—. See items 2540, 2541, 3013, 3015, 3016, 3218-3221, 3848, 3850, 3856, 3857, 5012, 5020, 8099, 8100.
7047. SCOTT, D. W., AND McCULLOUGH, J. P. Characteristic Vibrational Frequencies of Organic Sulfur Compounds. *Jour. Am. Chem. Soc.*, vol. 80, July 20, 1958, pp. 3554-3558.
7048. SCOTT, D. W., AND WADDINGTON, GUY. Thermodynamic Functions of 2,2,3-Trimethyl Butane. *Jour. Am. Chem. Soc.*, vol. 75, 1953, pp. 2006-2007.
7049. —. Vapor Pressure of *cis*-2-Pentene, *trans*-2-Pentene, and 3-Methyl-1-Butene. *Jour. Am. Chem. Soc.*, vol. 73, September 1950, pp. 4310-4311.
7050. SCOTT, D. W., DOUSLIN, D. R., GROSS, M. E., OLIVER, G. D., AND HUFFMAN, H. F. 2,2,3,3-Tetramethylbutane: Heat Capacity; Heats of Transition, Fusion, and Sublimation; Vapor Pressure; Entropy, and Thermodynamic Functions. *Jour. Am. Chem. Soc.*, vol. 74, Feb. 20, 1952, pp. 863, 883-887.
7051. SCOTT, D. W., DOUSLIN, D. R., MESSERLY, J. F., TODD, S. S., HOSSENLOPP, I. A., KINCHELOE, T. C., AND McCULLOUGH, J. P. Benzotrifluoride: Chemical Thermodynamic Properties and Internal Rotation. *Jour. Am. Chem. Soc.*, 1959, vol. 81, pp. 1015-1020.
7052. SCOTT, D. W., FINKE, H. L., GROSS, M. E., GUTHRIE, G. B., AND HUFFMAN, H. F. 2,3-Dithiabutane: Low-temperature Heat Capacity, Heats of Fusion, Heat of Vaporization; Vapor Pressure, Entropy, and Thermodynamic Functions. *Jour. Am. Chem. Soc.*, vol. 72, 1950, pp. 2424-2430.
7053. SCOTT, D. W., FINKE, H. L., HUBBARD, W. N., McCULLOUGH, J. P., KATZ, C., GROSS, M. E., MESSERLY, J. F., PENNINGTON, R. E., AND WADDINGTON, GUY. Thiacyclobutane: Heat Capacity, Heats of Transition, Fusion, and Vaporization; Vapor Pressure, Entropy, Heat of Formation, and Thermodynamic Functions. *Jour. Am. Chem. Soc.*, vol. 75, Mar. 5, 1953, pp. 2785-2800.
7054. SCOTT, D. W., FINKE, H. L., HUBBARD, W. N., McCULLOUGH, J. P., GROSS, M. E., WILLIAMSON, K. D., WADDINGTON, GUY, AND HUFFMAN, H. M. Spiropentane: Heat Capacity, Heats of Fusion and Vaporization, Vapor Pressure, Entropy, and Thermodynamic Functions. *Jour. Am. Chem. Soc.*, vol. 72, October 1950, pp. 4664-4668.
7055. SCOTT, D. W., FINKE, H. L., HUBBARD, W. N., McCULLOUGH, J. P., OLIVER, G. D., GROSS, M. E., KATZ, CHARLES, WILLIAMSON, K. D., WADDINGTON, GUY, AND HUFFMAN, H. W. 3-Thiapentane: Heat Capacity, Heats of Fusion and Vaporization, Vapor Pressure, Entropy, Heat of Formation, and Thermodynamic Functions. *Jour. Am. Chem. Soc.*, vol. 74, 1952, pp. 4656-4662.
7056. SCOTT, D. W., FINKE, H. L., McCULLOUGH, J. P., GROSS, M. E., MESSERLY, J. F., PENNINGTON, R. E., AND WADDINGTON, GUY. 2,3-Dimethyl-2-Butene: Thermodynamic Properties in the Solid, Liquid, and Vapor States. *Jour. Am. Chem. Soc.*, vol. 77, 1955, pp. 4933-4938.
7057. SCOTT, D. W., FINKE, H. L., McCULLOUGH, J. P., GROSS, M. E., PENNINGTON, R. E., AND WADDINGTON, GUY. 2,4-Dithiahexane: Heat Capacity, Heats of Fusion and Vaporization, Vapor Pressure, Entropy, and Thermodynamic Function. *Jour. Am. Chem. Soc.*, vol. 74, 1952, p. 2478.
7058. SCOTT, D. W., FINKE, H. L., McCULLOUGH, J. P., GROSS, M. E., WILLIAMSON, K. D., WADDINGTON, GUY, AND HUFFMAN, H. M. Thermodynamic Properties and Rotational Isomerism of 2-Thiabutane. *Jour. Am. Chem. Soc.*, vol. 73, 1951, p. 261.
7059. SCOTT, D. W., FINKE, H. L., McCULLOUGH, J. P., MESSERLY, J. F., PENNINGTON, R. E., HOSSENLOPP, I. A., AND WADDINGTON, GUY. 1-Butanethiol and 2-Thiapentane. Experimental Thermodynamic Studies Between 12 and 500° K.; Thermodynamic Functions by a Refined Method of Increments. *Jour. Am. Chem. Soc.*, vol. 79, March 5, 1957, pp. 1062-1068.
7060. SCOTT, D. W., FINKE, H. L., WADDINGTON, GUY, AND HUFFMAN, H. M. Thermodynamic Properties of Spiropentane. *Jour. Am. Chem. Soc.*, vol. 72, 1950, p. 4664.
7061. SCOTT, D. W., GOOD, W. D., AND WADDINGTON, G. Tetraethyllead: Heat of Formation of Rotating-Bomb Calorimetry. *Jour. Phys. Chem.*, vol. 60, 1956, pp. 1000-1005.
7062. SCOTT, D. W., GUTHRIE, G. B., McCULLOUGH, J. P., AND WADDINGTON, GUY. Isomerization Equilibria. *Jour. Chem. Eng. Data*, vol. 4, No. 3, July 1959, pp. 240-251.
7063. SCOTT, D. W., McCULLOUGH, J. P., GOOD, W. D., MESSERLY, J. F., PENNINGTON, R. E., KINCHELOE, T. C., HOSSENLOPP, I. A., DOUSLIN, D. R., AND WADDINGTON, GUY. Fluorobenzene: Thermodynamic Properties in the Solid, Liquid, and Vapor States; a Revised Vibrational Assignment. *Jour. Am. Chem. Soc.*, vol. 78, 1956, pp. 5457-5463.
7064. SCOTT, D. W., McCULLOUGH, J. P., HUBBARD, W. N., MESSERLY, J. F., HOSSENLOPP, I. A., FLOW, F. R., WADDINGTON, GUY. Benzenethiol: Thermodynamic Properties in the Solid, Liquid and Vapor States; Internal Rotation of the Thiol Group. *Jour. Am. Chem. Soc.*, vol. 78, 1956, pp. 5463-5468.
7065. SCOTT, D. W., McCULLOUGH, J. P., MESSERLY, J. F., PENNINGTON, R. E., HOSSENLOPP, I. A., FINKE, H. L., AND WADDINGTON, GUY. 2-Methyl-1-Propanethiol: Chemical Thermodynamic Properties and Rotational Isomerism. *Jour. Am. Chem. Soc.*, vol. 80, Jan. 5, 1958, pp. 55-59.
7066. SCOTT, D. W., GROSS, M. E., OLIVER, G. D., AND HUFFMAN, H. M. Cyclooctatetraene. Low-Temperature Heat Capacity, Heat of Fusion, Heat of Vaporization, Vapor Pressure, End Entropy. *Jour. Am. Chem. Soc.*, vol. 71, May 1949, pp. 1634-1636.
7067. SCOTT, D. W., McCULLOUGH, J. P., WILLIAMSON, K. D., AND WADDINGTON, GUY. Rotational Isomerism and Thermodynamic Functions of 2-Methylbutane and 2,3-Dimethylbutane. Vapor Heat Capacity, and Vaporization of 2-Methylbutane. *Jour. Am. Chem. Soc.*, vol. 73, April 1951, pp. 1707-1712.
7068. SCOTT, D. W., OLIVER, G. D., GROSS, M. E., HUBBARD, W. N., AND HUFFMAN, H. M. The Entropy of Hydrazine. The Possibility of Random Orientation in the Solid. 114th meeting, Am. Chem. Soc., Portland, Oreg., September 1948, Abst. of papers; Hydrazine: Heat capacity, Heats of Fusion and Vaporization, Vapor Pressure, Entropy, and Thermodynamic Functions. *Jour. Am. Chem. Soc.*, vol. 71, 1949, p. 2203.
7069. SCOTT, D. W., WADDINGTON, GUY, SMITH, J. C., AND HUFFMAN, H. M. The Contribution of Anharmonicity to the Heat Capacity of Benzene Vapor. *Jour. Chem. Phys.*, vol. 15, 1948, pp. 505.
7070. —. The Heat Capacity of Benzene Vapor. The Contribution of Anharmonicity. *Jour. Chem. Phys.*, vol. 14, 1947, pp. 565-568.

7071. SCOTT, D. W., WADDINGTON, GUY, SMITH, J. C., AND HUFFMAN, H. M. Thermodynamic Properties of Three Isomeric Pentenes. *Jour. Am. Chem. Soc.*, vol. 71, August 1947, pp. 2767-2773.
7072. ——. Thermodynamic Properties of 2-Methyl-2-Butene. *Abs. of papers*, 112th meeting, Am. Chem. Soc., Chicago, Ill., April 1948.
- SCOTT, FRANK E. See item 7083.
7073. SCOTT, F. E., VAN IJOLAH, R. W., AND ZABETAKIS, M. G. The Flammability Characteristics of the System H<sub>2</sub>-NO-N<sub>2</sub>O-Air. *Symposium on Combustion*, 6th, Yale Univ., 1956, 1957, pp. 540-545.
7075. SCOTT, F. H. Extraction of Tungsten From High Speed Grinding Swarf and Scale. *Metallurgia*, vol. 55, 1957, pp. 140-142.
- . See item 2928-2930.
7076. SCOTT, GEORGE L., JR., AND HAM, WILLIAM E. Geology and Gypsum Resources of the Carter Area. *Oklahoma Geol. Survey Circ.* 42, 1957, pp. 1-64.
7077. SCOTT, G. S. Chemist Can Tell What is Happening to a Sealed Fire. *Coal Age*, vol. 40, December 1941, p. 104.
7078. ——. Mechanism of the Steam-Carbon Reaction. *Ind. Eng. Chem.*, vol. 33, 1941, pp. 1279-1285.
- . See items 1697, 4116-4118, 4138, 4345, 8638, 8637.
7079. SCOTT, G. S., AND JONES, G. W. Application of Chemistry in Combating Anthracite-Mine Fires. *AIIM Tech. Pub.* 1424, Coal Div., February 1942, 11 pp.; *Trans. AIIM, Coal Div.*, vol. 140, 1942, pp. 207-217; *Coal Age*, vol. 40, December 1941, pp. 104-106.
7080. ——. Oxidation of Anthracite; Liberation of Carbon Monoxide and Its Relation to Ignition Temperature. *Ind. Eng. Chem.*, vol. 29, No. 1, January 1937, pp. 106-108.
7081. ——. Significance of Low Temperature Oxidation Products in Anthracite Mine Studies. *Ind. Eng. Chem.*, vol. 29, No. 7, July 1937, pp. 822-826.
7082. SCOTT, G. S., JONES, G. W., AND COOPER, H. M. Effect of Oxidation of Anthracite on its Heating Value. *Ind. Eng. Chem.*, vol. 31, 1939, pp. 1025-1027.
7083. SCOTT, GEORGE S., JONES, GEORGE W., AND SCOTT, FRANK E. Determination of Ignition Temperatures of Combustible Liquids and Gases; Modification of the Drop Method Apparatus. *Anal. Chem.*, vol. 20, No. 3, 1948, pp. 238-241.
7084. SCOTT, GEORGE W. Explosions. *Proc. New England Gas Assoc.*, 1932.
- SCOTT, J. H. See item 5831.
- 7084a. SCOTT, W. W., AND STROUD, B. K. Report on the Haynesville Oil Field, Calcasieu Parish, Louisiana, 1922. *Conservation Commission of Louisiana, New Orleans, La. Bull.* 11, 1922, 26 pp.
- SEABRIGHT, J. K. See item 628.
- SEAMAN, HENRY. See items 4119, 4127-4131, 4772.
7085. SEAMAN, HENRY, AND LEWIS, BERNARD. The Equilibrium Concentrations of Gases in Finnes. Fuel in *Sci. and Prac.*, vol. 13, March 1934, pp. 87-91.
7086. SEARS, G. W. Critical Studies of Fusion of Rare Metals Ores. III. Determination of Tantalum and Columbium. *Jour. Am. Chem. Soc.*, vol. 51, January 1929, p. 122.
- SEBAN, R. A. See item 5834.
7087. SEBASTIAN, J. J. S. Effect of Variables in Powdered Coal Gasification. *Ind. Eng. Chem.*, vol. 44, No. 5, May 1952, pp. 1175-1184.
- . See item 383.
7088. SEBASTIAN, J. J. S., AND RIESZ, C. H. Sulfur-Resistant Catalysts for Reforming Propane. Method for Rating Catalytic Activity and Sulfur Resistance. *Ind. Eng. Chem.*, vol. 43, No. 4, April 1951, pp. 800-806.
7089. SEBASTIAN, J. J. S., EDEBURN, P. W., BONAR, F., AND SCHMIDT, L. D. Development of Synthesis-Gas Process in Experimental Unit Operating on Entrained Powdered Coal. *Pres. 114th meeting, Am. Chem. Soc.*, St. Louis, Mo., September 1948.
- SEGUR, R. D. See item 489.
7090. SEMEL, C. W. Accident Prevention Pays Off—More Hole for Your Money Through Reduced Premiums. *Drill. Contr.*, vol. 7, Dec. 15, 1950, pp. 50-51, 56.
7091. ——. The Chemists Contribution to Aviation. *Chem. in Ind.*, The Chemical Foundation, Inc., vol. 2, 1925, pp. 15-30.
7092. ——. The Contributions of the U.S. Bureau of Mines to Helium Production. *Trans. ASME*, Jan. 1, 1937, Sec. I, pp. 55-59.
7093. ——. Factors in High-Pressure Design. *Ind. Eng. Chem.*, vol. 29, April 1937, pp. 414-420.
7094. ——. The Government's New Helium Plant at Amarillo, Texas. *Chem. Met. Eng.*, vol. 37, September 1930, pp. 550-552.
7095. ——. Helium and Associated Elements in Kansas Natural Gas. *Chem. Met. Eng.*, May 1917.
7096. ——. Helium and Natural Gas. *Jour. Chem. Ed.*, vol. 3, January 1920, pp. 43-49.
7097. ——. High Production of Helium at Amarillo Plant. *Am. Gas Assoc. Monthly*, vol. 20, 1938, p. 180.
7098. ——. Manufacturing Process of Helium Plant. *U.S. Daily*, May 31, 1932.
7099. ——. Production of Helium at Amarillo. *Ind. Eng. Chem.*, vol. 30, 1938, pp. 848-852; Huge Production of Helium at Amarillo Plant. *Am. Gas Assoc. Monthly*, vol. 20, 1938, p. 180.
- SEIBERT, F. M. See items 1049-1057, 1811.
7104. SEIBERT, F. M., AND BURRELL, G. A. Critical Constants of Normal Butane, Isobutane, and Propylene and Their Vapor Pressures Between 0 and 120. *Jour. Am. Chem. Soc.*, vol. 37, 1915, pp. 2083-2091.
7110. ——. Separation of Constituents in Natural Gas From Which Gasoline is Condensed. *Jour. Am. Chem. Soc.*, vol. 37, 1915, pp. 392-396.
- SEILER, E. C. See items 3463, 5537.
- SELJOMAN, R. See items 170, 171, 174, 176, 177, 179, 180, 4988, 4989, 7259, 7261, 7262.
7111. SELVIG, W. A. Chemical Analysis of Rock-Dusting Materials. *Ch. Carnegie Inst. Technical Bull.* 21, 1925.
7112. ——. Fourth Internat. Meeting on Coal and Coke. *Magazine of Standards*, vol. 20, No. 9, September 1955, pp. 282-283.
7113. ——. Fusibility of West Virginia Coal Ash. *Coal Age*, vol. 15, 1919, pp. 12-16.
7114. ——. General Status of Foundry-Coke Specifications. *Trans. Am. Foundrymen's Assoc.*, vol. 30, 1928, pp. 634-642.
7115. ——. Possibilities of Research on Non-Corrosive Metals for Handling Coal Mine Water. *Mln. Cong. Jour.*, vol. 14, May 1928, pp. 330-341.
7116. ——. Properties of Lignites of the United States. *Fuels*, vol. 32, January 1963, pp. 28-35.
7117. ——. Sampling Coal. *Internat. Cong. of New Internat. Assoc. for Test. Mats.*, Zurich, Switzerland, Sept. 6-12, 1931; *Proc.*, vol. 2, 1032, pp. 340-357.

7118. SELVIG, W. A. Specific Gravity of Coal. Specific Gravity of Lump and Bulk Density. Supp. to Factors Recommended for Consideration in the Selection of Coal. Nat. Assoc. Purch. Agents, Dec. 7, 1937, 4 pp.
7119. ——. Specific Physical Properties of Coal as Sampled (Other Than Specific Volatile Index). Caking Properties of Coal: Coke Button, Agglutinating Index, and Swelling. Supp. to Factors Recommended for Consideration in the Selection of Coal. Nat. Assoc. Purch. Agents, Nov. 30, 1937, 5 pp.
7120. ——. Disc. of "A Furnace for the Measurement of Coal-Ash Softening Temperature" by Elliott P. Barrett. Proc. ASTM, vol. 36, pt. 2, 1935, pp. 637-638.
7121. ——. Disc. of "Further Investigation of Methods for Estimating the Grindability of Coal" H. F. Yancy and M. R. Geer. Trans. AIME, Coal Div., vol. 119, 1936, pp. 369-370.
7122. ——. Disc. of "Investigation of Procedure for Determination of Coal Grindability by the Ball-Mill Method" by C. G. Black. Trans. AIME, Coal Div., vol. 119, 1936, pp. 369-370.
7123. ——. Disc. of "A Laboratory Test for the Ignitibility of Coal," by R. A. Sherman, H. N. Ostborg, and J. M. Pilcher. ASTM Bull. 112, October 1941, p. 33.
7124. ——. Disc. of "Oxidation of Coal and the Relation to Its Analysis" by E. Stansfield, W. A. Lang, and K. C. Gilbert. Trans. AIME, Coal Div., vol. 108, 1934, p. 253.
7125. ——. Disc. of "Statistical Study of the Precision of Methods for Analysis of Coal and Coke," by H. H. Lowry and Charles O. Junge, Jr. Proc. ASTM, vol. 42, 1942, pp. 886-887.
7126. ——. Disc. of "The Use of a New Type of Equipment for Determining Moisture in Coal," by O. W. Rees and C. F. Bursack. Ind. Eng. Chem., vol. 14, 1942, pp. 729-731.
7127. ——. Disc. of "Using Electric Furnaces and Heaters To Determine Free-Swelling Index of Coal," by E. Swartzman and G. C. Behnke. Min. Eng., vol. 4, No. 11, November 1952, p. 1081.
7128. ——. Disc. of "Variables in Coal Sampling" by J. B. Morrow and C. P. Proctor. Trans. AIME, Coal Div., vol. 119, 1936, p. 275.
- . See items 440, 441, 802, 2436-2454, 2478-2483, 4907, 4908, 5781, 5921, 6363, 6677, 6678, 7409.
7129. SELVIG, W. A., AND FIELDNER, A. C. Fusibility of Ash From Pennsylvania Coals. Coal Age, vol. 15, 1919, pp. 1080-1089.
7130. ——. Sulphur in Coal and Coke: Check Determination by the Eschka, Bomb-Washing and Sodium Peroxide Fusion Methods. Ind. Eng. Chem., vol. 19, June 1927, pp. 729-733.
7131. SELVIG, W. A., AND GIBSON, F. H. Calorific Value of Coal. Chap. 4, Chem. of Coal Utilization, H. H. Lowry, ed., John Wiley & Sons, New York, 1945, vol. 1, pp. 132-144.
7132. ——. Chlorine Determination in Coal. Ind. Eng. Chem., anal. ed., vol. 5, May 15, 1933, pp. 189-191.
7133. SELVIG, W. A., AND KAPLAN, B. B. Hygroscopicity of By-Product Coke. Ind. Eng. Chem., vol. 12, 1920, pp. 763-784.
7134. SELVIG, W. A., AND ODE, W. H. Determination of Gas, Coke, and Byproducts of Coal. Ind. Eng. Chem., anal. ed., vol. 7, Mar. 15, 1935, pp. 88-93.
7135. ——. Inert Material for Agglutinating-Value Test of Coal. Fuel, vol. 21, 1942, pp. 40-51.
7136. ——. Disc. of "An Experimental Investigation of the British Standard Method for the Crucible Swelling Test for Coal," by H. N. Ostborg, H. R. Limbacher, and Ralph A. Sherman. Proc. ASTM, vol. 42, 1942, pp. 867-869.
7137. SELVIG, W. A., AND PARKER, W. L. Determination of the Fineness of Powdered Coal. Abs., Power, vol. 59, Jan. 8, 1924, p. 70; Power Plant Eng., vol. 28, Feb. 1, 1924, pp. 177-178.
7138. ——. Determination of the Specific Gravity of Coke. Chem. Met. Eng., vol. 28, 1923, pp. 547-550.
7139. SELVIG, W. A., AND POHLE, W. D. Loss of Water Hydration and Carbon Monoxide of Mineral Matter in Coal in the Standard Method for Determination of Volatile Matter. Am. Chem. Soc. Meet., Gas and Fuel Div., March 1933; Ind. Eng. Chem., anal. ed., vol. 5, July 15, 1933, pp. 239-241.
7140. SELVIG, W. A., AND RATLIFF, W. C. Determining Graphitic Carbon. Trans. Am. Electrochem. Soc., vol. 37, 1920, pp. 121-154.
7141. ——. Nature of Acid Water From Coal Mines and Determination of Acidity. Ind. Eng. Chem., vol. 14, 1922, pp. 125-127.
7142. SELVIG, W. A. AND SAWYER, C. H. Report of Committee D-6 on Coal and Coke. Proc. ASTM, vol. 48, 1940, pp. 401-403; vol. 50, 1950, pp. 322-324; vol. 51, 1951, pp. 364-366; vol. 52, 1952, pp. 413-415.
7143. SELVIG, W. A., BROWN, O. C., AND FIELDNER, A. C. Fusibility of Ash From Certain Eastern Coal. Coal Age, vol. 17, 1920, pp. 177-180, 225-230.
7144. ——. Fusibility of Coal Ash From Eastern Coals. Chem. Met. Eng., vol. 22, Jan. 14, 1920, pp. 80-81.
7145. SELVIG, W. A., LENHART, J. R., AND FIELDNER, A. C. Temperatures at Which Ash From Western Coals Fuses to a Sphere. Coal Age, vol. 18, 1920, pp. 677-682.
7146. SELVIG, W. A., ODE, W. H., AND FIELDNER, A. C. Classification of Coals of the United States According to Fixed Carbon and B.t.u. Trans. AIME, Coal Div., vol. 108, 1934, pp. 188-196; disc., pp. 190-197; Tech. Pub. 527, 1934, 11 pp.
7147. SELVIG, W. A., ODE, W. H., AND SPRUNK, G. C. A Comparison of the Determination of Fusain in Coal by Chemical Oxidation and Petrographic Methods. Fuel, vol. 21, 1942, pp. 33-36.
7148. SELVIG, W. A., RATLIFF, W. C., AND FIELDNER, A. C. Fusibility of Ash From Coals Found in the Interior Province. Coal Age, vol. 15, 1919, pp. 688-703.
7149. ——. Fusibility of Coal Ash. Chem. Met. Eng., vol. 20, 1919, pp. 274-276.
- SETTLE, J. DOYLE. See item 5509.
7150. SEVERY, C. LUTHER. Salts Cored Successfully With Oil Field Equipment. Eng. Min. Jour., vol. 147, August 1946, pp. 85-87.
- SEWARD, J. H. See item 3663.
- SEYFRIED, W. D. See items 350, 351.
- SEYMOUR, WILLIAM. See items 442, 443.
7152. SHAFFER, LYMAN H., NEWTON, JOSEPH, AND FAHRENWALD, A. W. Flotation of Mercury Ores. Awaits Favorable Differential as Compared with Furnacing. Eng. Min. Jour., vol. 141, May 1940, pp. 40-43.
7153. SHALE, C. C. Laboratory Dust Feeder Covers Wide Rate Range. Chem. Eng. Process Design Notebook, Nov. 16, 1959, pp. 202-204.
- . See item 8117.
- SHAPIRO, M. See item 653.
- SHARKEY, A. G. JR. See items 2748-2753, 2757-2760, 6604.
7155. SHARKEY, A. G., JR., AND FRIEDEL, R. A. Anomalous Negative Peaks in Mass Spectra. Anal. Chem., vol. 31, No. 3, March 1949, pp. 424-425; Jour. Chem. Phys., vol. 17, No. 10, October 1949, p. 998.

7156. SHARKEY, A. G., JR., FRIEDEL, R. A., AND LANGER, S. H. Mass Spectra of Trimethylsilyl Derivatives. *Anal. Chem.*, vol. 29, May 1957, pp. 770-776.
7157. SHARKEY, A. G., JR., ROBINSON, C. F., AND FRIEDEL, R. A. Advances in Mass Spectrometry. Symposium Pub. Div., J. D. Waldron, Ed., Pergamon Press, London, 1959, pp. 193-208.
7158. SHARKEY, A. G., JR., SHULTZ, J. L., AND FRIEDEL, R. A. Mass Spectra of Esters. Formation of Rearrangement Ions. *Anal. Chem.*, vol. 31, 1959, pp. 87-94.
7159. ——. Mass Spectra of Ketones. *Anal. Chem.*, vol. 28, June 1956, pp. 934-940.
7160. SHARKEY, A. G., JR., WOOD, GORTON, AND FRIEDEL, R. A. Mass Spectrometric Analysis of High-Bowing Coal-Hydrogenation Products With Low-Ionizing Voltage. *Chem. and Ind. (London)*, 1958, pp. 833-834.
7161. SHARKEY, A. G., JR., WOOD, G., SHULTZ, J. L., WENDER, I., AND FRIEDEL, F. A. Analysis of Liquid Products from Coal Hydrogenation by Mass Spectrometry. Use of Rhodium Filaments and Low Ionizing Voltage. *Fuel*, vol. 38, 1959, pp. 315-328.
7162. SHARP, ALAN A. Safety in Small Mines. Accidents from Mechanical Hazards and Hand Tools. *Pay Dirt*, No. 131, May 20, 1949, p. 4.
7163. ——. Safety in Small Mines—Falls of Rock. *Pay Dirt*, No. 127, Jan. 21, 1949, p. 5.
7164. ——. Safety in Small Mines—Haulage Accidents. *Pay Dirt*, No. 134, Aug. 10, 1949, p. 7.
7165. ——. Safety in Small Mines—Safe Use of Explosives. *Pay Dirt*, No. 125, Nov. 18, 1948, p. 4.
7166. ——. Safety in Small Mines—Safe Use of Explosives. *Pay Dirt*, No. 128, Feb. 18, 1949, p. 4.
7167. SHARP, H. H., AND GAVIN, M. J. Physical and Chemical Data Relating to Colorado Oil-Shales: Oil Gas Jour., vol. 19, 1920, No. 18, pp. 86-88.
- SHARP, L. H. See items 2879, 2880.
7168. SHARP, L. H. AND STRUNK, A. T. Some Items of Investment, Expense, and Profit in Commercial Shale-Oil Production. *Oildom*, vol. 12, March 1921, p. 47; *Oil Trade Jour.*, vol. 12, March 1921, p. 62; *Chem. Age*, vol. 29, February 1921, pp. 69-70; *Oil Paint and Drug Repr.*, vol. 99, Feb. 21, 1921, *Petrol. Sec.*, p. 8; *Oil Age*, vol. 17, April 1921, p. 29; *Eng. Min. Jour.*, vol. 111, Apr. 2, 1921, p. 595.
7169. SHAUM, J. H., WHITE, D. E., AND ZADRA, JOHN B. Statements on Mineral Resources. Antimony. Chap. in Mineral Position of the United States. Nat. Res. Econ. Subcommittee, Committee on Public Lands, U.S. Senate, 80th Cong., 1st sess., 1947, pp. 211-214.
- SHAW, LEONARD. See items 7258, 7262.
7170. SHEA, G. B. Bituminous Sands and Shales and Partly Depleted Subsurface Sands as Sources of Additional Oil in California. *California Oil World*, December 1943, pp. 9-13.
7171. ——. Mining for Oil in Japan. *World Oil*, vol. 127, No. 9, January 1948, p. 198-202.
7172. ——. Secondary Recovery Research, Pacific Coast Area. *Producers Monthly*, vol. 20, No. 8, June 1956, pp. 46-50.
7173. ——. Tar Sands. Chap. in *Encyclopedia of Chemical Technology*, vol. 13, 1954, pp. 643-644. ——. See items 2664, 4871, 5367.
7174. SHEEKAR, L. F. The Effect of Atmospheric Conditions on the Load Test for Refractories. *Jour. Am. Ceram. Soc.*, vol. 9, May 1926, pp. 279-289.
- SHEFTEL, MILTON S. See items 2578b, 2578c.
- SHEKARCHI, E. See item 634.
- SHELTON, HEIMEL. See item 3026.
7175. SHELL, H. R. Chemical Analysis of Sillimanite, Kyanite, and Related Aluminum Silicate Refractories. *Bull. Am. Ceram. Soc.*, vol. 28, No. 9, Sept. 15, 1949, pp. 340-352.
7176. ——. Determination of Magnetite in Chrysotile. *Am. Mineral.*, vol. 41, 1956, pp. 351-353.
7177. ——. Determination of Silica in Fluosilicates Without Removal of Fluorine. *Anal. Chem.*, vol. 27, December 1955, pp. 2000-2007.
7178. ——. Determination of Total Iron in Silicates and Other Nonmetallic Minerals. *Anal. Chem.*, vol. 22, No. 2, February 1950, pp. 326-328.
7179. ——. Possible Loss of Iron During Sodium Carbonate Fusion of Silicates and Rocks. *Anal. Chem.*, vol. 26, March 1954, pp. 591-593.
7180. ——. Separation and Determination of Sodium Oxide in the Presence of Lithium Oxide, Phosphorus Pentoxide, and Potassium Oxide. *Anal. Chem.*, vol. 22, April 1950, pp. 575-577.
- . See item 634.
7181. SHELL, H. R., AND COMEFORO, J. E. An Impact-Resistant Ceramic Dielectric and Method of Making Same. U.S. Patent 2,934,443, April 20, 1960.
7182. SHELL, H. R., AND CORTELYOU, W. P. Soluble Sulfate Content of Pottery Bodies During Preparation. *Jour. Am. Ceram. Soc.*, vol. 26, No. 6, June 1, 1943, pp. 179-185.
7183. SHELL, H. R., AND CRAIG, R. L. Determination of Silica and Fluoride in Fluosilicates. *Anal. Chem.*, vol. 22, February 1950, p. 320.
- SHELTON, F. K. See items 1189, 1190.
7184. SHELTON, F. K., CHURCHWARD, P. E., STAHL, J. C., AND DAVIS, C. W. Electrolytic Cobalt—a Commercially Feasible Process. *Electrochem. Soc. Prepr.* 91-4, pp. 66-71; *Trans. Electrochem. Soc.*, vol. 91, 1947, pp. 115-131.
7185. SHELTON, J. E., AND STICKNEY, W. A. How to Process Alluvial Sand for Tantalum-Columbium. *Eng. Min. Jour.*, vol. 158, No. 4, April 1957, pp. 93-95.
7186. SHELTON, S. M. Beneficiation of Domestic Manganese Ores. Bureau of Mines Met. Div., Conf. Met. Res., Salt Lake City, Utah, May 1940, pp. 74-83.
7187. ——. Progress in Production of Electrolytic Manganese. Bureau of Mines Met. Div., Conf. Met. Res., Salt Lake City, Utah, May 1940, pp. 28-37.
7188. ——. War Demands Bring Changed Attitude Toward Scrap Metals. *Min. and Met.*, vol. 23, 1942, pp. 688-689.
7189. ——. Zirconium. *Sci. Am.*, vol. 184, June 1951, pp. 18-21.
- . See items 2103, 4507.
7190. SHELTON, S. M. Strategic Metals. *Metal Prog.*, vol. 38, No. 4, October 1940, p. 527.
7191. SHELTON, S. M., AND DILLING, E. D. The Manufacture of Zirconium Sponge, Zirconium, and Zirconium Alloys. Chap. in *Zirconium and Zirconium Alloys*, Am. Soc. Metals, Cleveland, Ohio, 1953, pp. 82-120.
7192. SHELTON, S. M., AND DUNCAN, W. E. Zinc Metallurgy is Far From Static. *Eng. Min. Jour.*, vol. 140, February 1939, pp. 81-82.
7193. SHELTON, S. M. (Assigned to the United States of America as represented by the Secretary of the Army.) A Method for Manufacturing Titanium and Titanium Alloys. U.S. Patent 2,800,111, appl. Mar. 30, 1956.
7194. SHELTON, S. M., AND HANLEY, H. R. Zinc Metallurgy. *Eng. Min. Jour.*, vol. 141, February 1940, pp. 90-91; vol. 142, No. 2, February 1941, pp. 87-89; vol. 143, No. 2, February 1942, pp. 87-88.

7185. SHELTON, S. M., AND LAMB, F. D. Concentration of Blast-Furnace Flue Dusts. *Iron Age*, vol. 149, June 11, 1942, pp. 54-59.
7186. SHELTON, S. M., AND ROYER, M. B. Effect of Solution Concentration in Electrodeposition of Manganese. *Trans. Electrochem. Soc.*, vol. 74, 1938, pp. 447-455.
7187. SHELTON, S. M., DILLING, E. D., AND MCCLAIN, J. H. Zirconium Metal Production. Proc. Internat. Conf. on Peaceful Uses of Atomic Energy. Prod. Technol. of the Materials Used for Nuclear Energy, Conf., Aug. 8, 1956, pp. 505-550.
7188. SHELTON, S. M., MCKINNEY, C. M., AND BLADE, O. C. Domestic Crudes Contain Less Sulfur. *Petrol. Refiner*, vol. 36, May 1957, pp. 257-260.
7189. SHEPPARD, M. AND PORTER, FRANK. Improved Method for the Separation of Gas Mixtures. *Ind. Eng. Chem.*, vol. 15, 1923, pp. 1143-1140.
7200. SHEPPARD, MARK. Hydraulic Stripping of a Stone Quarry. AIME, Tech. Pub. 879, Min. Technol., vol. 2, January 1938, 8 pp. *Trans. AIME*, Ind. Min. (Nonmetallics), vol. 129, 1938, pp. 20-33; disc., p. 33.
- SHEPHERD, W. C. F. See item 2689.
7201. SHERMAN, H. C. Flotation Experiments on a Utah Sulphur Ore. Bull. 14, Univ. of Utah, January 1924, pp. 82-90.
7202. SHERMAN, R. A. Boiler-Furnace Refractories. Stokers and Furnaces, Serial Rept., Prime Movers Committee, Nat. Elec. Light Assoc., June 1926, pp. 19-33.
7203. ——. Combustibility of Blast Furnace Coke. *Iron Age*, vol. 115, Apr. 9, 1925, pp. 1043-1045.
7204. ——. Combustibility of Coke. *Fuels and Furnaces*, vol. 1, 1923, pp. 87-100.
7205. ——. The Cooling of Refractories in Boiler Furnaces. *Power*, vol. 70, October 1920, pp. 675-677; Nov. 12, 1920, pp. 753-755.
7206. ——. Combustion in Kilns Burning Refractory Ware. *Jour. Am. Ceram. Soc.*, vol. 7, March 1924, pp. 175-188.
7207. ——. Refractories. Marks' *Mech. Eng. Handbook*, 3d ed., 1930, pp. 763-773.
7208. ——. Refractories in Power Plants. Am. Refractories Inst. Bull. 18, December 1927; *Power*, vol. 67, May 8, 1928, pp. 820-830.
7209. ——. Refractories Service Conditions in Boiler Furnaces. *Power*, vol. 63, Jan. 10, 1920, pp. 118-115.
7210. ——. Temperatures in Powdered Coal Furnaces Having Extended Radiant-Heat Absorbing Surfaces. *Mech. Eng.*, vol. 49, April 1927, pp. 335-338.
- . See items 844, 4425, 6108, 6523.
7211. SHERMAN, R. A., AND BLIZARD, J. Combustion of Blast-Furnace Cokes in Fuel Beds. *Trans. AIME*, vol. 69, 1923, pp. 526-542; disc. pp. 584-586.
7212. SHERMAN, R. A., AND KINNEY, S. P. Combustibility of Blast-Furnace Coke. *Iron Age*, vol. 111, 1923, pp. 1839-1844.
7213. ——. Combustibility of Blast-Furnace Coke. *Fuel*, vol. 5, March 1926, pp. 98-105.
7214. SHERMAN, R. A., AND RICE, W. E. Refractories Service Conditions in Furnaces Burning Pittsburgh Coal on Chain Grates. *Mech. Eng.*, vol. 48, November 1926, pp. 1115-1122.
7215. ——. Refractories Service Conditions in a Furnace Burning Pittsburgh Coal on Underfeed Stokers. *Mech. Eng.*, vol. 49, October 1927, pp. 1085-1092.
7216. SHERMAN, R. A., AND TAYLOR, E. Refractories Service Conditions in Furnaces Burning Powered Illinois Coal With Long-Flame Burners. *Trans. ASME, Fuels and Steam Power*, vol. 50, No. 15, May-August 1928, pp. 125-140.
7217. ——. Service Factors Governing the Slagging of Boiler-Furnace Refractories. *Mech. Eng.*, vol. 49, July 1927, pp. 735-741; *Jour. Am. Ceram. Soc.*, vol. 10, August 1927, pp. 629-643.
7218. SHERMAN, R. A., HELSER, P. D., BROOKS, H. W., AND BOLE, G. A. Preliminary Findings in Refractory Investigations. *Power*, vol. 62, Aug. 18, 1925, pp. 234-237; Aug. 25, pp. 277-280.
7219. SHERMAN, R. A., LUNGER, R. F., AND RICE, W. E. Significance of Drifts in Down-Draft, Coal-Fired Kilns. *Jour. Am. Ceram. Soc.*, vol. 7, April 1924, pp. 255-270.
7220. SHERMAN, R. A., NICHOLLS, P., AND TAYLOR, EDMUND. A Study of Some Factors in Removal of Ash as Molten Slag From Powdered Coal Furnaces. *Trans. ASME, Fuels and Steam Power*, vol. 51, No. 22, September-December 1929, pp. 390-413.
7221. SHERMAN, R. A., RICE, W. E., AND BERGER, L. B. Refractories: An Investigation of Boiler-Furnace Conditions as Related to Refractories Service. *Mech. Eng.*, vol. 48, December 1925, pp. 1380-1390; *Proc. Nat. Elec. Light Assoc.*, vol. 63, 1926, pp. 1305-1320.
7222. SHERMAN, R. A., TAYLOR, EDMUND, AND KARCH, H. S. Refractories Service Conditions in Furnaces Burning Anthracite on Traveling-Grate Stokers. *Trans. ASME, Fuels and Steam Power*, vol. 51, No. 12, May-August 1929, pp. 183-190.
7223. ——. Refractories Service Conditions in Furnaces Burning Fuel Oil. *Trans. ASME*, vol. 50, No. 23, 1928, pp. 313-322.
7224. SHERMAN, W. O., SWINDLER, C. M., McELROY, W. S., AND YANT, W. P. Carbon Monoxide Poisoning Following Ethylene Anesthesia. *Jour. AMA*, vol. 88, Apr. 16, 1927, pp. 1228-1231.
7225. SHERICK, J. L. Fire Risks with Ammonium Nitrate. Rept. 2 of Committee on Investigation of Explosibility of Ammonium Compounds: Army Ordnance, vol. 4, No. 22, January-February 1924, pp. 237-241.
7226. ——. The Influence of Confinement Upon Explosibility of Ammonium Nitrate. Rept. 3 of Committee on Investigation of Explosibility of Ammonium Compounds: Army Ordnance, vol. 4, No. 23, March-April 1924, pp. 329-333.
7227. ——. The Influence of Density of Packing Upon Explosibility of Ammonium Nitrate. Rept. 4 of Committee on Investigation of Explosibility of Ammonium Compounds: Army Ordnance, vol. 4, No. 24, May-June 1924, pp. 395-400.
- SHERWOOD, A. M. See item 4008.
- SHOAF, H. W. See item 8557.
7228. SHOHAN, J. B. Present Day Knowledge of Chemical Constitution of Coal. *Am. Chem. Soc. Meet.*, Sept. 12, 1929; *Fuel*, vol. 9, March 1930, pp. 140-140.
7229. SHOMATE, C. HOWARD. Ferrous and Magnesium Chromites—Specific Heats at Low Temperatures. *Ind. Eng. Chem.*, vol. 36, 1944, pp. 910-911.
7230. ——. Heat Capacities at Low Temperatures of the Metatitanates of Iron, Calcium, and Magnesium. *Jour. Am. Chem. Soc.*, vol. 68, No. 6, June 1946, pp. 964-966.
7231. ——. Heat Capacities at Low Temperatures of  $\text{Na}_2\text{TiO}_4$ ,  $\text{Na}_2\text{Ti}_2\text{O}_7$ , and  $\text{Na}_2\text{Ti}_4\text{O}_9$ . *Jour. Am. Chem. Soc.*, vol. 68, 1946, pp. 1634-1636.
7232. ——. Heat Capacities at Low Temperatures of Titanium Dioxide (Rutile and Anatase). *Jour. Am. Chem. Soc.*, vol. 69, February 1947, pp. 218-219.

7233. SHOMATE, C. HOWARD. Heat Capacities at Low Temperatures of  $VCl_3$  and  $VC_2$ . *Jour. Am. Chem. Soc.*, vol. 69, 1947, pp. 220-221.
7234. ——. The Heat of Formation of Manganese-Manganic Oxide and Manganese Dioxide. *Jour. Am. Chem. Soc.*, vol. 65, 1943, pp. 785-790.
7235. ——. High-Temperature Heat Contents of Aluminum Oxide, Aluminum Sulfate, Potassium Sulfate, Ammonium Sulfate, and Ammonium Bisulfate. *Jour. Am. Chem. Soc.*, vol. 67, 1945, pp. 72-75.
7236. ——. High-Temperature Heat Contents of Magnesium Nitrate, Calcium Nitrate, and Barium Nitrate. *Jour. Am. Chem. Soc.*, vol. 66, 1944, pp. 928-929.
7237. ——. Low-Temperature Specific Heats of Alpha Manganese and Gamma Manganese. *Jour. Chem. Phys.*, vol. 13, 1945, pp. 326-328.
7238. ——. Specific Heats at Low Temperatures of Ammonium Sulfate, Ammonium Aluminum Sulfate, and Ammonium Aluminum Sulfate Dodecahydrate. *Jour. Am. Chem. Soc.*, vol. 67, 1945, pp. 1096-1098.
7239. ——. Specific Heats at Low Temperatures of Anhydrous Aluminum Sulfate, Aluminum Sulfate Hexahydrate, Anhydrous Potassium Aluminum Sulfate, and Potassium Aluminum Sulfate Dodecahydrate. *Jour. Am. Chem. Soc.*, vol. 67, 1945, pp. 765-767.
7240. ——. Specific Heats at Low Temperatures of Ferrous Chromite and Magnesium Chromite. *Ind. Eng. Chem.*, vol. 36, 1944, pp. 910-911.
7241. ——. Specific Heats at Low Temperatures of  $TiI_3$ ,  $Ti_2O_3$ ,  $Ti_3O_5$ , and  $TiN$ . *Jour. Am. Chem. Soc.*, vol. 68, 1946, pp. 310-312.
- . See items 4335, 7392, 7799.
7242. SHOMATE, C. HOWARD, AND COOK, OSCAR A. Low-Temperature Heat Capacities and High-Temperature Heat Contents of  $Al_2O_3 \cdot 3H_2O$  and  $Al_2O_3 \cdot H_2O$ . *Jour. Am. Chem. Soc.*, vol. 68, 1946, p. 2140.
7243. SHOMATE, C. H., AND HUFFMAN, E. H. Heats of Formation of Magnesium Oxide, Magnesium Chloride, Magnesium Monohydrate, Magnesium Dihydrate, Magnesium Tetrahydrate, and Magnesium Hexahydrate. *Jour. Am. Chem. Soc.*, vol. 65, 1943, pp. 1025, 1029.
7244. SHOMATE, C. H., AND KELLEY, K. K. Heat Capacities at Low Temperatures and Entropies of Vanadium Carbide and Vanadium Nitride. *Jour. Am. Chem. Soc.*, vol. 71, 1949, pp. 314-315.
7245. ——. The Specific Heats at Low Temperatures of Nitrates of Magnesium, Calcium, Barium, and Aluminum. *Jour. Am. Chem. Soc.*, vol. 66, 1944, pp. 1490-1492.
7246. SHOMATE, C. H., AND NAYLOR, B. F. High-Temperature Heat Contents of Aluminum Oxide, Aluminum Sulfate, Potassium Sulfate, Ammonium Sulfate, and Ammonium Bisulfate. *Jour. Am. Chem. Soc.*, vol. 67, January 1945, pp. 72-75.
7247. SHOMATE, C. H., AND YOUNG, FRANK E. Heats of Formation of Solid and Liquid Manganese Hexahydrate. *Jour. Am. Chem. Soc.*, vol. 66, 1944, pp. 771-773.
7248. SHORE, F. M. Domestic Heating From Coals Below the Rank of Anthracite. *Trans. Fuel Conf.*, London, 1929, pp. 335-338.
7249. ——. Investigation of Markets for Coal Products. Studies of Distribution and Consumption Conducted by Bureau of Mines. *U.S. Daily*, Mar. 24, 1932, p. 8.
7250. ——. Studies of Mine Output in Coal Industry. Information on Production in Anthracite and Bituminous Fields by Bureau of Mines. *U.S. Daily*, Mar. 23, 1932.
- . See items 8625-8627.
7251. SHORE, F. M., AND CORGAN, J. A. The Anthracite Industry in 1940: Min. Cong. *Jour.*, vol. 27, February 1941, pp. 20-22.
7252. SHORT, ALLAN M. Dehydrating Aluminum in the Production of Aluminum. *U.S. Patent* 2,484,467, Mar. 15, 1949.
- SHOUR, EARLE P. See items 822, 894, 897.
7253. SHRADER, J. H., AND MITCHELL, C. W. Hazards From Use of Manufactured Gas. *Am. Jour. Pub. Health*, vol. 14, April 1924, pp. 316-322.
- SHUCK, G. R. See item 8392.
- SHUEY, E. T. See item 3898.
- SHUFLER, S. L. See items 2781, 7441.
7255. SHUFLER, S. LEONARD, STERNBERG, HEINZ W., AND FRIEDEL, R. A. Infrared Spectrum and Structure of Chromium Hexacarbonyl, Cr (CO)<sub>6</sub>. *Jour. Am. Chem. Soc.*, vol. 70, 1948, p. 2087.
- SHUKYS, J. G. See item 7445.
- SHULTZ, J. F. See items 165, 179, 180, 4199, 5896.
7256. SHULTZ, J. F., ABELSON, MANUEL, SHAW, LEONARD, AND ANDERSON, R. B. Fischer-Tropsch Synthesis. Nitrides and Carbonitrides of Iron as Catalysts. *Ind. Eng. Chem.*, vol. 49, 1957, pp. 2055-2060.
7257. SHULTZ, J. F., ABELSON, M., STEIN, K. C., AND ANDERSON, R. B. Studies of the Fischer-Tropsch Synthesis. XVIII. Influence of Catalyst Geometry on Synthesis on Iron Catalysts. *Jour. Phys. Chem.*, vol. 63, April 1959, pp. 496-500.
7258. SHULTZ, J. F., HALL, W. K., DUBS, T. A., AND ANDERSON, R. B. Studies of the Fischer-Tropsch Synthesis. XV. Cementite as Catalysts. *Jour. Am. Chem. Soc.*, vol. 78, Jan. 20, 1956, pp. 282-285.
7259. SHULTZ, J. F., HALL, W. K., SELIGMAN, B., AND ANDERSON, R. B. Studies of the Fischer-Tropsch Synthesis. XIV. Hilg Iron Carbide as Catalysts. *Jour. Am. Chem. Soc.*, vol. 77, May 10, 1955, pp. 213-221.
7260. SHULTZ, J. F., SCHOENEWEIS, F. J., AND ANDERSON, R. B. Compressed Carbon Monoxide. *Ind. Eng. Chem.*, vol. 48, August 1956, p. 1305.
7261. SHULTZ, J. F., SELIGMAN, B., LECKY, J., AND ANDERSON, R. B. Studies of Fischer-Tropsch Synthesis. XII. Composition Changes of Nitrided-Iron Catalysts During the Synthesis. *Jour. Am. Chem. Soc.*, vol. 74, Feb. 5, 1952, pp. 637-649.
7262. SHULTZ, J. F., SELIGMAN, B., SHAW, L., AND ANDERSON, R. B. Fischer-Tropsch Synthesis—Effect of Nitriding on Three Types of Iron Catalysts. *Ind. Eng. Chem.*, vol. 44, No. 2, February 1952, pp. 397-401 (abstract).
- SHULTZ, J. L. See items 2758-2760, 7158, 7159, 7161.
- SIBLEY, F. H. See item 4014.
- SIEGFUS, S. S. See item 8640.
7264. SIEVERS, R. F., EDWARDS, T. I., MURRAY, A. L., AND SCHENK, H. H. Effect of Exposure to Known Concentrations of Carbon Monoxide. *Jour. AMA*, vol. 118, No. 8, Feb. 21, 1942, pp. 585-588.
7265. SIEVERS, RUDOLF F., EDWARDS, THOMAS, MURRAY, ARTHUR L., RUSSELL, A. E., SCHENK, H. H., AND FAIRHALL, LAWRENCE T. A Medical Study of Men Exposed to Measured Amounts of Carbon Monoxide in the Holland Tunnel for Thirteen Years. *U.S. Pub. Health Bull.* 278, 1942, 74 pp.
- SIKES, A. W. See item 4632.
7266. SILL, CLAUDE W., AND PETERSON, HEBER E. Fluorescence Test for Thallium in Aqueous Solution. *Anal. Chem.*, vol. 21, No. 10, October 1949, pp. 1260-1268.

7267. SILL, CLAUDE W., AND PETERSON, HEBER E. Fluorescence Test for Uranium in Aqueous Solution. A Critical Study. *Anal. Chem.*, vol. 19, 1947, pp. 646-651.
7268. ——. Volumetric Determination of Milligram Quantities of Uranium. *Anal. Chem.*, vol. 24, No. 7, July 1952, pp. 1175-1182.
- 7269a. ——. A Semimicro Iodometric Determination of Thallium in Ores and Flue Dusts. *Anal. Chem.*, vol. 21, No. 10, October 1949, pp. 1268-1273.
- SILLERS, F., JR. See items 6308-6311.
7269. SIMMONS, M. C. Determination of Carbon and Hydrogen in Petroleum Distillates, a Lamp Technique. *Anal. Chem.*, vol. 19, June 1947, pp. 385-389.
- . See item 3238.
7270. SIMMONS, ROBERT F., AND WOLFHARD, HANS G. The Light Emission of Halogen Flames. *Ztschr. Elektrochem.*, vol. 61, No. 5, 1957, pp. 601-609.
7271. ——. The Structure of Chlorine Flames. *Jet Propulsion*, January 1957, pp. 44-48.
- SIMMONS, W. M. See item 3189.
- SIMONS, H. P. See items 68, 69, 363, 1911, 2022.
- SIMS, C. E. See items 8321, 8323-8325, 8370.
7272. SIMS, C. E., AND DIECKMAN, G. P. Effect of Alkali on Concrete Drain Tile Near Lake Park, Pa. *Concrete-Cement Age*, vol. 6, 1915, pp. 278-280.
7273. SIMS, C. E., AND LARSON, B. M. Determination of Ferrous Iron in Materials Containing Metallic Iron. *Ind. Eng. Chem.*, vol. 17, January 1925, pp. 48-48.
7274. SIMS, C. E., AND RALSTON, O. C. Electrolytic Recovery of Lead From Brine Leaches. *Trans. Am. Electrochem. Soc.*, vol. 30, 1916, pp. 185-199.
7277. SIMS, C. E., WILSON, H., AND FISHER, H. C. Preparation of Artificial Sillimanite for Refractory Uses. *Am. Electrochem. Soc. Prepr.* 23, 1924.
7278. SINGER, J. M. Burning-Velocity Measurements on Slot Burners; Comparison With Cylindrical Burner Determinations. 4th Internat. Symp. on Combustion, Williams & Wilkins Co., Baltimore, Md., 1953, pp. 352-358.
- . See items 3186, 6540.
7279. SINGER, J. M., AND GRUMER, J. Carbon Formation in Very Rich Hydrocarbon-Air Flames. I. Studies of Chemical Content, Temperature, Ionization and Particulate Matter. 7th Symposium (Internat.) on Combustion, London, September 1958, pp. 559-569.
7280. SINGER, JOSEPH M., AND VON ELBE, GUENTHER. Flame Propagation in Cylindrical Tubes Near the Quenching Limit. 6th Symposium on Combustion, 1956, Yale Univ., 1957, pp. 127-129.
7281. SINGER, J. M., GRUMER, JOSEPH, AND COOK, E. B. Burning Velocities by the Bunsen-Burner Method. I. Hydrocarbon-Oxygen Mixtures at One Atmosphere. II. Hydrocarbon-Air Mixtures at Subatmospheric Pressures. *Proc. Gas Dynam. Symposium Aerothermochem.*, 1955, Evanston, 1956, pp. 139-150.
7282. ——. Significance of Quenching By Ports in Burning Velocity Measurements by Bunsen Burner Methods. *Jet Propulsion*, vol. 26, November 1956, p. 989.
7283. SIPPRELLE, E. M. Oil-Shale Mining 1949. Colorado Min. Assoc., Denver, Colo., 1950 Mining Yearbook, pp. 114, 118, 128.
7284. ——. Oil-Shale Mining Investigations, Rifle, Colorado. *Mines Mag.*, vol. 38, No. 12, December 1948, pp. 61-64.
- . See items 2838-2840, 6902.
7285. SIPPRELLE, E. M., AND BALLINGER, H. J. Applicability of Oil Shale Mining Developments to the Mining Industry. *Min. Cong. Jour.*, vol. 36, October 1950, p. 82 (abstract).
7286. ——. Oil-Shale-Mining Developments and the Mining Industry. *Min. Cong. Jour.*, vol. 37, August 1951, pp. 46-51.
7287. SIPPRELLE, E. M. AND TEICHMAN, H. L. Roof Studies and Mine Structure Stress Analysis, Bureau of Mines-Oil-Shale Mine, Rifle, Colorado. *AIME Tech. Pub.* 2942; *Trans. AIME, Min. Eng.*, vol. 187, 1950, pp. 1031-1036.
7288. SISLER, J. D. Bituminous Coal Losses and Mining Methods in Pennsylvania. *Pennsylvania Topographic and Geologic Survey Bull.* M4, 1924, 26 pp.
7289. SISLER, J. D., AND ALLEN, C. A. Coal Losses in Ohio. *Ohio State Univ. Eng. Exp. Sta., Bull.* 29, May 1925, 64 pp. (Compiled by the Bureau of Mines for the U.S. Coal Commission).
- SKINKLE, W. B. See item 4532.
- SKILLEBN, J. A. See item 340.
7290. SKINNER, KENNETH G. Coke-Carbon Dioxide Relations. *Ind. Eng. Chem.*, vol. 29, June 1937, pp. 696-697.
7291. ——. Equations and Quadrant Charts for Determining Heat Balances of Kilns Using Solid or Liquid Fuels. *Jour. Am. Ceram. Soc.*, vol. 22, 1939, pp. 72-82.
- . See items 8383, 8384, 8371.
7292. SKINNER, K. G., AND KELLY, HAL J. Concentration and Determination of Grade in Tests on Sillimanite in Idaho Schists. *Jour. Am. Ceram. Soc.*, vol. 30, No. 7, July 1, 1947, pp. 197-202.
7293. ——. Preliminary Ceramic Tests of Clays From Pacific Northwest Deposits. *Bull. Am. Ceram. Soc.*, vol. 27, 1948, pp. 183-184.
7294. SKINNER, KENNETH G., AND WILSON, HEWITT. Factors for the Calculation of Ceramic and Non-metallic Minerals. *Jour. Am. Ceram. Soc.*, vol. 17, April 1934, pp. 93-115.
7295. SKINNER, K. G., COOK, W. H., POTTER, R. A., AND PALMOUR, HAYNE, III. Effect of  $TiO_2$ ,  $Fe_2O_3$ , and Alkali on Mineralogical and Physical Properties of Mullite-Type and Mullite-Forming  $Al_2O_3-SiO_2$  Mixtures. Part I. *Jour. Am. Ceram. Soc.*, vol. 36, No. 11, Nov. 1, 1953, pp. 349-356.
7296. SKINNER, L. C. Preparation of Synthetic-Fuel Cost Estimates by the Coal-to-Oil Demonstration Branch, ASME Paper 50-PET-11; *Mech. Eng.*, vol. 72, No. 12, December 1950, pp. 1007-1008.
7297. ——. Progress in Coal Hydrogenation. Chap. in *Gasification and Liquefaction of Coal*. AIME, Maple Press Co., York, Pa., 1958, pp. 1-14.
- . See items 490, 6398, 7580-7583.
7298. SKINNER, L. C., BATCHELDER, H. R., AND KATELL, S. Comparative Cost Study of Ammonia Plants. *Ind. Eng. Chem.*, vol. 44, No. 10, October 1952, pp. 2381-2385.
7299. SKINNER, L. C., DONATH, E. E., SCHAPPERT, H., AND FRESE, E. Residual-Oil Hydrogenation. *Petrol. Refiner*, vol. 29, No. 7, July 1950, pp. 83-87.
7300. SKINNER, L. C., DRESSLER, R. G., CHAFFEE, C. C., MILLER, S. G., AND HIRST, L. L. The Thermal Efficiency of Coal Hydrogenation—Present and Future. *Ind. Eng. Chem.*, vol. 41, No. 1, January 1949, p. 87.
7301. SKOW, M. L. *Mica. Eng. Min. Jour.*, vol. 160, No. 2, February 1959, p. 142.
- . See item 7730.
7302. SLAVIN, MORRIS. Illuminator for Visual Spectrum-Line Densitometers. *Jour. Opt. Soc. America*, vol. 29, May 1939, p. 220.

7303. SLAVIN, MORRIS. Iron Arc as a Standard Source for Spectrochemical Analysis. *Ind. Eng. Chem.*, vol. 12, 1940, pp. 131-133.
7304. ——— Prism vs. Grating for Spectrochemical Analysis. Proc. 7th Summer Conf. on Spectroscopy and Its Applications, Massachusetts Inst. Technol., July 1939; John Wiley & Sons, New York, 1940, pp. 51-58.
7305. ——— Quantitative Analysis Based on Spectral Energy. *Ind. Eng. Chem.*, vol. 10, 1938, pp. 407-411.
7306. ——— Spectrochemical Analysis of Glass Sand. *Glass Ind.*, vol. 22, 1941, pp. 341-343.  
——— See item 2794.
- SLAVIN, M. A. See item 3517.
- SLAWSON, C. B. See item 4840.
7307. SLOAN, W. A. Treatment of Copper-Smelter Flue Dust. *Eng. Min. Jour.*, vol. 120, No. 6, Aug. 11, 1928, p. 212.  
——— See item 5834.
7308. SLOMAN, H. J. Psychological Aspects of Accident Prevention. Trans. 35th Nat. Safety Cong. Coal Mining Sec., Chicago, Ill., Oct. 6, 1947, vol. 8, pp. 9-13.
- SLOME, M. C. See item 6804.
- SMATKO, JOSEPH S. See item 6869.
7309. SMITH, ALLEN S. Another Apparatus for the Determination of Helium in Natural Gas. *Petrol. World*, vol. 31, September 1934, pp. 223-226.
7310. ——— Constant-Head Gas Scrubber for Small Pressure Drops. *Ind. Eng. Chem., Anal. Ed.*, vol. 6, July 15, 1934, p. 279.
7311. ——— Continuous Determination of the Carbonate-Caustic Ratio in a Carbon Dioxide Absorption System. *Ind. Eng. Chem., anal. ed.*, vol. 6, May 15, 1934, pp. 217-220.
7312. ——— Continuous Determination and Recording of Carbon Dioxide Content of Gas Mixtures. *Ind. Eng. Chem., anal. ed.*, vol. 6, July 15, 1934, pp. 293-295.
7314. ——— Rate of Mixing of Gases in Closed Containers. *Ind. Eng. Chem.*, vol. 26, November 1934, pp. 1167-1169.
7315. SMITH, A. M., AND VANDERBURG, W. O. Placer Mining in Nevada. *Univ. of Nev. Bull.*, vol. 28, No. 8, Dec. 15, 1932, 104 pp.
- SMITH, C. M. See item 2483.
- SMITH, C. R., JR. See item 7360.
7318. SMITH, D. F. Abs. of "The Action of Iron Catalysts on Mixtures of Carbon Monoxide and Hydrogen," by Audibert and Rainneau. *Ind. Eng. Chem.*, vol. 21, Sept., 1929, pp. 880-885.
7317. ——— Equilibrium Conditions in the Formation of Hydrocarbons and Alcohols From Water Gas. *Ind. Eng. Chem.*, vol. 19, July 1927, pp. 801-803.
7318. ——— Note Concerning Thermodynamic Calculations. *Ind. Eng. Chem.*, vol. 20, August 1928, pp. 859-860.
7319. ——— Disc. of "Equilibrium Conditions in the Formation of Hydrocarbons and Alcohol From Water Gas" by Hans Tropsch. *Brennstoff Chem.*, vol. 9, August 1928, p. 249.  
——— See items 2723, 3125, 4301, 4872.
7320. SMITH, D. F., AND BRANTING, B. F. The Equilibrium Between Methanol, Carbon Monoxide and Hydrogen: Preliminary Paper. *Jour. Am. Chem. Soc.*, vol. 51, Jan. 8, 1929, p. 129.
7321. SMITH, D. F. AND HAWK, C. O. The Catalytic Decomposition of Methanol. *Jour. Phys. Chem.*, vol. 32, 1928, pp. 415-424.
7322. SMITH, DAVID F., AND HIRST, L. L. Reactions that Occur on a Methanol Catalyst. *Ind. Eng. Chem.*, vol. 22, No. 10, November 1930, pp. 1037-1040.
7323. ——— Reliability of the Heat Data as a Factor in Calculating Equilibria Involving Methanol. *Ind. Eng. Chem.*, vol. 22, No. 6, June 1930, pp. 634-639.
7324. SMITH, D. F., AND MILNER, R. T. Partial Oxidation of Methane in the Presence of Oxides of Nitrogen. *Ind. Eng. Chem.*, vol. 23, April 1931, pp. 357-360.
7325. SMITH, D. F., DAVIS, J. D., AND REYNOLDS, D. A. Synthesis of Higher Hydrocarbons From Water Gas. *Ind. Eng. Chem.*, vol. 20, May 1928, pp. 402-404.
7326. SMITH, D. F., HAWK, C. O., AND GOLDEN, P. L. The Mechanism of the Formation of Higher Hydrocarbons From Water Gas. *Jour. Am. Chem. Soc.*, vol. 52, August 5, 1930, pp. 3221-3232.
7327. SMITH, D. F., HAWK, C. O., AND REYNOLDS, D. A. The Synthesis of Higher Hydrocarbons From Water Gas: II. *Ind. Eng. Chem.*, vol. 20, December 1928, p. 1341.
7328. SMITH, D. I., O'MEARA, R. G., AND MOVAT, T. N. Concentration of Feldspathic Waste From a Titanium Mine Near Roseland, Va. *Jour. Am. Ceram. Soc.*, vol. 23, 1940, pp. 339-341.
- SMITH, F. W. See item 6419.
7329. SMITH, F. W., AND BROWN, R. L. How Does Coal Coke? *Proc. Am. Gas Assoc.*, 1952, pp. 719-720.
7330. SMITH, FRANK W., REYNOLDS, D. A., AND BREWER, RALPH E. Effects of Storage on the Coking Properties of Pond Creek Coal From Pike County, Ky. *Proc. Am. Gas Assoc.*, 35th Ann. Conv., 1953, pp. 835-851.
7331. SMITH, F. W., REYNOLDS, D. A., AND WOLFSON, D. E. Coking Properties of Pittsburgh District Coals. *Min. Eng.*, vol. 9, No. 3, March, 1957, pp. 360-364.
7332. SMITH, FRANK G., GREENWALD, H. P., LONG, A. E., NORTHOVER, W. D., PRICE, P. H., SPOTTI, A. E., AND WHITE, JEROME. Mine Roof Sealing to Prevent slate Falls. Preliminary Rept. by Coal Div. Committee on Roof Action. *Min. Cong. Jour.*, vol. 20, April 1943, pp. 43-46.
7333. SMITH, G. O., AND TRYON, F. G. Are We Buying Coal Enough? *Coal Rev.*, vol. 2, Mar. 30, 1921, pp. 11-12.
7334. ——— Development of the American Coal Industry, 1913-1928. *Proc. World Eng. Cong.*, Tokyo, Japan, vol. 37, Oct.-Nov. 1929.
7335. ——— Fluctuations in Coal Production-Their Extent and Causes. *Coal Age*, vol. 17, Feb. 28, 1920, pp. 390-407.
- SMITH, G. W. See items 4284, 4295.
- SMITH, H. C. See items 7780, 7791.
7336. SMITH, H. I. Possible Substitute for Mine Posts. *Proc. Coal Min. Inst. America*, 1914-1916, pp. 11-20.
7337. ——— U.S. Rules Make Mines in Public Lands Safer. *Coal Age*, vol. 26, July 3, 1924, pp. 8-11.
7338. SMITH, H. M. Characteristics of Crude Oils Currently Produced in the U.S. *Oil Gas Jour.*, vol. 49, Mar. 29, 1951, pp. 308-310, 313, 315, 317, 318.
7339. ——— Characteristics of United States Crude Oils, 1935-46. *Sci. Petrol.*, Oxford Press.
7340. ——— Composition and Properties of Diesel Fuels—Preliminary Data. *Soc. Auto. Eng. Quart. Trans.*, vol. 3, January 1949, pp. 164-177.
7341. ——— Composition of Petroleum Oils (Preface to Symposium Publication). *ASTM Bull.* No. 321, July 1958, pp. 55-56.
7342. ——— Composition of United States and Some Foreign Crude Oils. *Proc. 3d World Petrol. Cong.*, Leiden, Netherlands, sec. 6, 1951, pp. 319-335.

7343. SMITH, H. M. Composition of Some United States Crude Oils. *Oil Gas Jour.*, vol. 49, Apr. 12, 1951, pp. 91-92; *Ind. Eng. Chem.*, vol. 44, October 1952, pp. 2577-2585.
7344. ———. The Crude Oils of the U.S.A., 1934-45. *Sci. Petrol.*, vol. 5, 1950, Oxford Press, New York, pp. 3-20.
7345. ———. New Laboratories of the Bureau of Mines Petroleum Experiment Station. *Ind. Eng. Chem.*, vol. 10, 1938, pp. 287-292.
7346. ———. The Petroleum World. *Chem. Eng. News*, vol. 26, 1948, pp. 1150-1151.
7347. ———. Preliminary Report of Studies on the Composition and Physical Properties of Diesel Fuels. *Soc. Auto. Eng. Quart. Trans.*, vol. 3, No. 1, January 1949, pp. 104-177.
7348. ———. Relationship of Crude Oils and Stratigraphy in Parts of Oklahoma and Kansas. *Bull. Am. Assoc. Petrol. Geol.*, vol. 31, 1947, pp. 92-148.
7349. ———. The Story of the Composition of Petroleum. A Map of the Petroleum World. *Oil Gas Jour.*, Nov. 4, 1948, pp. 60-61.
7350. ———. Rev. of "The Petroleum Chemicals Industry," by Richard F. Goldstein. *Chem. Eng. News*, vol. 28, No. 42, Oct. 16, 1950, p. 3638.
- . See items 350, 351, 1349, 1350, 2012, 3019, 3240, 3798, 3799, 3817, 5088, 5069, 5698, 6214-6218, 7371-7374, 7723.
7351. SMITH, H. M., AND BALL, JOHN S. Crude-Oil Characteristics by Bureau of Mines Routine Method. *Petrol. Eng.*, vol. 26, No. 6, June 1954, p. C-12-4.
7352. SMITH, H. M., AND BLADE, O. C. Trends in Supply of High-Sulfur Crude Oils in the United States. *Oil Gas Jour.*, vol. 46, No. 30, Nov. 20, 1947, pp. 73-78; *Proc. Am. Petrol. Inst.*, vol. 27, sec. 3, 1947, p. 119; *Petrol. Refiner*, vol. 27, May 1948, pp. 101-110; *Petrol. Processing*, vol. 2, December 1947, pp. 903-904.
7353. SMITH, H. M., AND HEADY, H. H. Identification of Frozen Liquid Samples With X-ray Diffractometer. *Anal. Chem.*, vol. 27, 1955, pp. 883-888.
7354. SMITH, HAROLD M., AND HOLLIMAN, W. C. Utilization of Natural Gas for Chemical Products. Hearings, Fed. Pow. Comm., Docket G-580, Natural-Gas Investigations, Washington, D.C., June 1948; *Petrol. Refiner*, vol. 26, No. 4, April 1947, pp. 75-84.
7355. SMITH, H. M., AND RALL, H. T. Relationship of Hydrocarbons With 6 to 9 Carbon Atoms. *Ind. Eng. Chem.*, vol. 45, No. 7, 1953, pp. 1491-1497.
7356. SMITH, H. M., DUNNING, H. N., RALL, H. T., AND BALL, J. S. Keys to the Mystery of Crude Oil. Pres. 24th Midyear Meeting API Div. of Ref., New York, N.Y., May 29, 1950, pp. 1-33.
7357. SMITH, H. M., GRANDINE, P., AND RALL, H. T. Production of Benzol by Pyrolysis of Natural Gas. *Nat. Petrol. News*, vol. 23, Oct. 28, 1931, pp. 69-70.
7358. ———. Government Gives Preliminary Data on Pyrolysis of Methane. *Oil Gas Jour.*, vol. 30, Oct. 29, 1931, p. 90.
7359. SMITH, H. M., AND OTHERS. Measurement of Density of Hydrocarbon Liquids by the Pycnometer. *Anal. Chem.*, vol. 22, No. 11, November 1950, pp. 1452-1453.
- SMITH, J. C. See items 6024, 7068-7072, 8100.
- SMITH, J. G. See item 8089.
- SMITH, J. R. See items 352, 1874, 1877-1880, 4406, 6118.
7360. SMITH, J. R., SMITH, C. R., JR., AND DINNEEN, G. U. Separation of Nitrogen Compounds by Adsorption from Shale Oil. *Anal. Chem.*, vol. 22, July 1950, pp. 867-870.
7361. SMITH, JOHN WARD. Applicability of a Specific Gravity-Oil Yield Relationship to Green River Oil Shale. *Ind. Eng. Chem.*, vol. 8, No. 2, October 1958, pp. 308-310.
7362. ———. Specific Gravity-Oil Yield Relationship of Two Colorado Oil-Shale Cores. *Ind. Eng. Chem.*, vol. 48, March 1958, pp. 441-444.
7363. SMITH, K. M. Cutting Costs Through Quality Control. *Foundry*, vol. 86, No. 6, June 1958, pp. 65-69.
7364. SMITH, L. A. World Manganese Situation. *Proc. Am. Mangan. Prod. Assoc.*, 1930, pp. 89-90.
7365. ———. World Production and Resources of Chromite. *AIME Tech. Pub. No. 423*; *Trans. AIME*, 1931, pp. 370-402; *Min. and Met.*, vol. 12, June 1931. ———. See item 4185.
7366. SMITH, N. A. C. Analyses of Texas Crude Oils. *Oil Bull.*, vol. 13, 1927, p. 384.
7367. ———. Gas Oil Situation. *Am. Gas Eng. Jour.*, May 29, 1920. ———. See item 1717.
7368. SMITH, N. A. C., AND RAWLINS, E. L. Natural Gas Research. *Oil Gas Jour.*, May 7, 1929, p. 210; *Nat. Gas*, vol. 10, June 1929, pp. 22-23, 60-61.
7369. SMITH, N. A. C., AND STARK, D. D. Distribution of Sulphur in Petroleum. *Oil Gas Jour.*, vol. 23, Apr. 24, 1924, p. 92.
7371. SMITH, N. A. C., SMITH, H. M., AND MCKINNEY, C. M. Refining Properties of New Crudes. Part 1. Significance and Interpretation of Bureau of Mines Routine Crude-Oil Analysis. *Petrol. Processing*, vol. 5, June 1950, pp. 608-614.
7372. ———. Refining Properties of New Crudes. Part 2. Characteristics of Crude Oils From Scurry County, Tex., Area. *Petrol. Processing*, vol. 5, July 1950, pp. 730-734.
7373. ———. Refining Properties of New Crudes. Part 4. Crude Oils From Recent Discoveries in Kansas. *Petrol. Processing*, vol. 5, September 1950, pp. 980-984.
7374. ———. Refining Properties in New Crudes. Part 5. Crude Oils From the "Golden Trend" in Oklahoma. *Petrol. Processing*, vol. 6, September 1951, pp. 987-990.
- SMITH, N. L. See item 8422.
7375. SMITH, R. V. Determining Friction Factors for Measuring Productivity of Gas Wells. *Jour. Petrol. Technol.*, vol. 2, March 1950, pp. 73-82; *Trans. AIME*, Tech. Pub. 2777, vol. 189, 10 pp. ———. See items 2043, 2045-2052, 4036.
7376. SMITH, R. V., AND DEWEES, E. J. Sources of Error in Subsurface-Pressure-Gage Calibration and Usage. *Oil Gas Jour.*, vol. 47, Dec. 9, 1948, pp. 85, 86, 89, 93-94, 96-98.
7377. SMITH, R. V., DEWEES, E. J., AND WILLIAMS, R. H. Calibration Characteristics of Subsurface-Pressure Gages. *Petrol. Eng., Drilling and Producing* ed., vol. 23, January 1951, pp. B7-B12.
7378. SMITH, R. V., WILLIAMS, R. H., DEWEES, E. J., AND ARCHER, F. C. Pressure-Buildup and Well-Interference Tests on Lone Star Producing Co. No. 6 Webb, Scurry County, Tex. *Oil Gas Jour.*, vol. 50, No. 20, Nov. 1, 1951, pp. 52-53, 73-74.
7379. ———. Well-Interference and Pressure Build-Up Tests on Wells in the Scurry Reef, Scurry County, Tex. Part 1. *Oil Gas Jour.*, vol. 51, No. 14, Aug. 11, 1952, pp. 118-125; Part 2. *Oil Gas Jour.*, vol. 51, No. 15, Aug. 18, 1952, pp. 90-105, 124-127.
- SMITH, R. W., JR. See items 887, 888, 891, 893, 1245, 1868, 4479, 5525, 5924, 8534.

7360. SMITH, R. W., JR., AND BRINKLEY, S. R., JR. On the Calculation of the Square Root by Automatic Computing Machines. Mathematical Tables and Other Aids to Computation. Vol. 5, No. 34; April 1951, pp. 111-112.
- SMITH, S. B. See item 892.
- SMITH, WARD. See items 4179, 5742.
- SMITH, WILLIAM C. See item 6554.
7381. SMITH, W. E., AND LEVA, MAX. Granular Desiccants for Drying Liquids by Adsorption. Petrol. Processing. vol. 8, No. 8, August 1953, pp. 1104-1109.
- SMITH, W. R. See item 374.
- SMOOTZ, J. P. See item 1715.
7382. SNELLING, W. O. Gasoline From Synthetic Crude Oil. Trans. AIME, vol. 51, 1915, pp. 657-671.
7383. ——. The Energy of Explosives. Proc. Eng. Soc. West. Pennsylvanian, vol. 28, 1912, pp. 653-673.
- SOHNS, H. W. See item 848.
7384. SOHNS, H. W., MITCHELL, L. E., COX, R. J., BARNEY, W. L., AND MURPHY, W. I. R. Determination of the Heat Needed To Retort Oil Shale. Ind. Eng. Chem., vol. 43, 1951, pp. 33-36.
7385. ——. Heat Requirements for Retorting Oil Shale. Ind. Eng. Chem., vol. 43, 1951, pp. 33-36.
7386. SOHNS, H. W., JUKKOLA, E. E., COX, R. J., BRANTLEY, F. E., COLLINS, W. G., AND MURPHY, W. I. R. Entrained-Solids Retorting of Colorado Oil Shale; Equipment and Operation. Ind. Eng. Chem., vol. 47, 1955, pp. 461-464.
- SOKASKI, MICHAEL. See item 8511.
7387. SOLET, I. S. A Sample Cutter for Nonferrous Metals. Rev. Sci. Instr., vol. 23, No. 10, October 1952, p. 506 (abstract).
- SOMERTON, W. H. See item 5350.
- SOULE, T. See item 8148.
7388. SOUTIARD, J. C. Heat of Hydration of Calcium Sulfates. Ind. Eng. Chem., vol. 32, 1940, pp. 442-445.
7389. ——. A Modified Calorimeter for High Temperatures. The Heat Content of Silica, Wollastonite, and Thorium Dioxide About 25°. Jour. Am. Chem. Soc., vol. 63, 1941, pp. 3142-3146.
7390. ——. The Thermal Properties of Crystalline and Glassy Boron Trioxide. Jour. Am. Chem. Soc., vol. 63, 1941, pp. 3142-3150.
7391. SOUTIARD, J. C., AND MOORE, G. E. High-Temperature Heat Content of Manganese Tetroxide (Manganese-Manganese Oxide), Manganese Silicate, and Manganese Chloride. Jour. Am. Chem. Soc., vol. 64, 1942, pp. 1769-1770.
7392. SOUTIARD, J. C., AND SHOMATE, C. HOWARD. Heats of Formation and High-Temperature Heat Contents of Manganese Oxide and Manganous Sulfate. High-Temperature Heat Content of Manganese. Jour. Am. Chem. Soc., vol. 64, 1942, pp. 1770-1774.
- SPANO, L. A. See items 1437, 1506.
- SPEECE, B. F. See item 8289.
7393. SPEIL, SIDNEY. Ball-Clay Symposium. III. Standardization of Moisture Content for Molding; Method of Determination. Bull. Am. Ceram. Soc., vol. 24, 1945, pp. 136-137.
7394. ——. Effect of Adsorbed Electrolytes on Properties of Monodisperse Clay-Water Systems. Jour. Am. Ceram. Soc., vol. 23, 1940, pp. 33-38.
7395. ——. Electrophoretic Dewatering of Clay. Trans. Electrochem. Soc., vol. 81, 1942, pp. 119-145; vol. 93, 1948, p. xi.
7396. ——. Open Letter to the Chairman of the White Ware Division, Committee on Research. Bull. Am. Ceram. Soc., vol. 23, 1944, pp. 56-57.
7397. ——. Physical Testing of Talc for High-Frequency Ceramics. Jour. Am. Ceram. Soc., vol. 26, No. 10, Oct. 1, 1943, pp. 330-338.
7398. ——. Disc. of "Electrophoretic Dewatering of Clay Suspensions." Bull. Am. Ceram. Soc., vol. 20, July 1941, pp. 244-246.
- . See items 588, 5751.
7399. SPEIL, SIDNEY, AND THOMPSON, M. Electrophoretic Dewatering of Clay. Trans. Electrochem. Soc., Prepr. 81-13, vol. 81, 27 pp.; Ceram. Age, vol. 40, 1942, pp. 100-108, 121; Trans. Electrochem. Soc., vol. 25, No. 4, April 1942, pp. 145-171.
7400. SPEIL, SIDNEY, AND WILSON, HEWITT. An Improved Mercury Balance Volumeter. Jour. Am. Ceram. Soc., vol. 25, 1942, pp. 275-277.
- SPENCER, G. B. See items 1381, 1383-1385.
- SPENCER, S. O. See item 1981.
7402. SPENDLOVE, M. J. Experiments on Vacuum Distillation of Nonferrous Metals and Alloys. Vacuum Metallurgy, Symposium of the Electrothermics and Metallurgy Division of the Electro-Chemical Society, October 1954, pp. 192-213.
7403. ——. Versuche über die Vakuum-Destillation von Nichtselzen-Metallen und Legierungen. Reproduced in German: I Teil, II Teil. Vacuum-Technik, vol. 6, 1957, pp. 15-18, Part I: pp. 36-41; Part II. —. See item 6731.
7404. SPENDLOVE, MAX J., AND ST. CLAIR, HILLARY W. An Automatic Surface Follower for Measuring the Rate of Evaporation of Molten Metals Undergoing Vacuum Distillation. Rev. Sci. Instr., vol. 23, No. 9, September 1952, pp. 471-475.
7405. SPITZER, RALPH, AND HUFFMAN, HUGH M. The Heats of Combustion of Cyclopentane, Cyclohexane, Cycloheptane, and Cyclooctane. Jour. Am. Chem. Soc., vol. 60, 1937, pp. 211-213.
- SPOTTI, A. E. See item 7332.
7407. SPRUNK, GEORGE C. Influence of Physical Constitution of Coal Upon Its Chemical, Hydrogenation, and Carbonization Properties. Jour. Geol., vol. 50, 1942, pp. 411-436.
- . See items 2058, 2550-2557, 3692, 3694-3696, 7147, 7654-7658, 8426, 8427.
7408. SPRUNK, G. C., AND TRIEBSEN, REINHARDT. Relation of Microscopic Composition of Coal to Chemical, Coking, and Byproduct Properties. Ind. Eng. Chem., vol. 27, April 1935, pp. 440-451.
7409. SPRUNK, G. C., SELVIA, W. A., AND ODE, W. H. Chemical and Physical Properties of Spores From Coal. Fuel, vol. 17, 1938, pp. 190-199; Jour. Soc. Chem. Ind., vol. 57, September 1938, p. 1001B; Brennstoff-Chem., vol. 10, Oct. 15, 1938, p. 387.
- STACY, R. H. See item 1245.
- STADNICHENKO, T. See items 7657, 7658.
- STAHL, J. C. See item 7184.
7410. STAHL, R. W., AND DOWD, J. J. Condensation of I.C. 7698, "Mining with a Desco Continuous Miner on a Longwall Face." Bull. D'Information Techniques No. 68 of Charbonnages de France, April 1955.
- STAMM, K. O. See items 6616-6618.
7411. STAMPER, J. W. Titanium, Metal, Mineral, and Mineral Fuel Review for 1958. State Geologists Jour., vol. 11, No. 2, October 1959, p. 40.
7412. STANBURY, W. A., JR. Making Oil From Coal. Coal Age, vol. 54, No. 7, July 1949, pp. 70-77.
7413. STANFIELD, K. E. Estimating Oil Yield of Lean Oil Shale. Anal. Chem., vol. 25, October 1953, pp. 1552-1553.

- STANFIELD, K. E. See items 2772, 3841, 3842, 4503, 6605, 7584, 7595, 7736-7738.
7414. STANFIELD, K. E., AND TICERNE, H. M. Oil-Shale Research and Process Development; Petroleum and Oil-Shale Experiment Station, Laramie, Wyo. Ind. Eng. Chem., vol. 43, January 1951, pp. 18-20.
7415. STANFIELD, W. E. Rev. of "Exudation and Allied Reactions Between Bitumens," by G. L. Oliensis. Chem. Eng. News, vol. 28, Oct. 9, 1950, pp. 3636, 3538.
7416. STANTON, F. M., AND FIELDNER, A. C. Methods of Analyzing Coal and Coke. Chem. Eng., vol. 15, 1912, pp. 160-167.
- STARK, D. D. See items 1718, 7369.
7417. STARK, D. D., AND DEAN, H. W. Determination of Water in Petroleum and Other Organic Emulsions. Ind. Eng. Chem., vol. 12, 1920, pp. 486-490.
- STARLIPER, A. G. See items 4348, 4494.
7418. STARRS, B. A., AND CLARKE, L. The System Potassium Sulphate-Magnesium Sulphate-Water. Jour. Phys. Chem., vol. 34, May 1930, pp. 1058-1063.
7419. STARRS, B. A., AND STORCH, H. H. The Ternary System, Potassium Sulphate-Magnesium Sulphate-Water. Jour. Phys. Chem., vol. 34, 1930, p. 2307.
- STEELE, D. V. See item 6870.
- STEIN, K. C. See items 172, 3722, 7257.
7420. STEIN, K. C., AND SCHOENEWEIS, F. J. Mercury Piston Gives Close Control of Liquid Feed Rates. Chem. Eng., vol. 60, No. 8, August 1953, p. 200.
7421. STEIN, K. C., THOMPSON, G. P., AND ANDERSON, R. B. Changes in Iron Catalyst and the Fischer-Through Membranes. U.S. Patent 2,597,907, May 27, p. 410.
7422. ——. Studies of the Fischer-Tropsch Synthesis XVII. Changes of Iron Catalysts During Pretreatment and Synthesis. Jour. Phys. Chem., vol. 61, 1957, pp. 928-932.
- STEINER, W. A. See items 864, 2071, 8217-8219, 8250.
7423. STEINER, W. A., AND WELLER, S. Apparatus for the Separation of Gases by Fractional Permeation Through Membranes. U.S. Patent 2,597,907, May 27, 1952.
7424. STEPAN, JOSEPH B. Fire and Static Electricity Hazards on Tank Motor Vehicles. Tank Truck Transportation of Chemicals, vol. 2, pp. 172-183.
7425. ——. Proper Handling and Storage of Flammable Liquids. Proc. 34th Ann. Conf. Lake Superior Mines Safety Council, pp. 88-92.
- STEPHENS, W. W. See items 3484, 4558, 4566, 4567, 4991, 6691.
7426. STEPHENS, W. W., AND GILBERT, H. L. Chlorination of Zirconium Oxide. Jour. Metals, Trans., vol. 4, No. 7, July 1952, pp. 733-737.
7427. STEPHENS, W. W., AND McCORMICK, J. H. Ductile Zirconium. Chem. Eng., vol. 58, March 1951, pp. 118-117.
7428. STEPHENS, W. W., AND MORNING, J. L. Adapts Pilot Plant to Manufacture of Alloy Steel. Steel, vol. 120, No. 18, May 5, 1947, pp. 116, 119-120, 122.
7429. STEPHENS, W. W., GILBERT, H. L., AND BEALL, R. A. Consumable-Electrode Arc Melting of Zirconium Metal. Trans. Am. Soc. Metals, vol. 45, 1953, pp. 862-871.
- STERLING, E. See item 3730.
- STERN, A. See items 6271, 6272.
7430. STERN, A. George. New Facilities for Chemical Studies by the Bureau of Mines. Ind. Eng. Chem., news ed., vol. 15, Dec. 10, 1937, pp. 516-517, 520.
- STERN, N. R. See item 3476.
- STERNBERG, H. W. See items 2781, 3069, 5169, 5311, 7255, 8233, 8245-8247, 8249, 8254, 8258.
7431. STERNBERG, H. W., AND WENDER, I. Metal Carbonyls and Related Compounds as Catalytic Intermediates in Organic Syntheses. Internat. Conf. on Coordination Chemistry, The Chemical Society, Burlington House, London, special pub. 13, Apr. 6-11, 1959, pp. 35-53.
7432. STERNBERG, H. W., MARKBY, R., AND WENDER, I. Binuclear Iron Carbonyls and Their Significance as Catalytic Intermediates. Jour. Am. Chem. Soc., vol. 79, 1957, pp. 6116-6121.
7433. ——. Chemistry and Catalytic Properties of the Iron Pentacarbonyl-Aqueous Alkali System. Jour. Am. Chem. Soc., vol. 78, 1956, pp. 5704-5705.
7434. ——. A Quinone Iron Tricarbonyl Complex and Its Significance in Organic Synthesis. Jour. Am. Chem. Soc., vol. 80, 1958, pp. 1009-1010.
7435. ——. Reaction of Alkynes With Certain Metal Carbonyls. Chem. Ind., 1959, pp. 1382-1383.
7436. STERNBERG, H. W., WENDER, I., AND ORCHIN, M. Analysis of Mixtures of Dicobalt Octacarbonyl and Cobalt Carbonyl Anion. Anal. Chem., vol. 24, January 1952, pp. 174-176.
7438. ——. Cobalt Tetracarbonyl Hydride. Inorganic Syntheses, McGraw-Hill Book Co., Inc., New York, N.Y., vol. 5, 1957, pp. 192-195.
7439. ——. Preparation of Cobalt Hydrocarbonyl. Inorganic Syntheses. J. C. Ballar, ed., McGraw-Hill Pub. Co., Inc., New York, N.Y., 1957, vol. 5, pp. 192-195.
7440. STERNBERG, HEINZ W., FRIEDEL, ROBERT A., MARKBY, RAYMOND, AND WENDER, IRVING. The Formation, Structure, and Properties of an Iron Carbonyl-Acetylene Complex Prepared by Peppe and Vetter. Jour. Am. Chem. Soc., vol. 78, 1956, pp. 3021-3023.
7441. STERNBERG, H. W., FRIEDEL, R. A., SHUFLETT, S. L., AND WENDER, I. The Dissociation of Iron Pentacarbonyl in Certain Amines. Jour. Am. Chem. Soc., vol. 77, No. 10, May 20, 1955, pp. 2075-2077.
7442. STERNBERG, H. W., WENDER, I., FRIEDEL, R. A., AND ORCHIN, M. The Chemistry of Metal Carbonyls. II. Preparation and Properties of Cobalt Carbonyl. Jour. Am. Chem. Soc., vol. 75, No. 11, June 5, 1953, pp. 2717-2720.
7443. ——. The Chemistry of Metal Carbonyls. III. Reaction Between Dicobalt Octacarbonyl and Dimethylamine. Jour. Am. Chem. Soc., vol. 75, No. 13, July 5, 1953, pp. 3148-3153.
7444. STERNBERG, H., GREENFIELD, H., FRIEDEL, R. A., WOTZ, J., MARKBY, R., AND WENDER, I. A New Type of Metalloc-Organic Complex Derived From Dicobalt Octacarbonyl and Acetylenes. Jour. Am. Chem. Soc., vol. 76, No. 5, Mar. 5, 1954, p. 1457.
7445. STERNBERG, H. W., SHUKYI, J. G., DELLA DONNE, C., MARKBY, R., FRIEDEL, R. A., AND WENDER, I. Addition of Carbon Monoxide to Acetylene Dicobalt Hexacarbonyl. A New Type of Complex. Jour. Am. Chem. Soc., vol. 81, 1959, pp. 2339-2342.
- STERNBERG, J. C. See item 487.
- STERRETT, K. F. See item 6634.
- STEVENS, R. E. See item 3644.
- STEVEN, K. R. See items 3522, 4906.
7446. STEWART, A. Helium Production Developed at Plants of Bureau of Mines. U.S. Daily, November 13, 1929, p. 8.
7447. ——. Necessity for Helium Conservation. Chem. Eng., vol. 28, 1920, p. 72.

7448. STEWART A. Production of Helium for Use in Airships. Aviation, vol. 7, 1919, pp. 32-55.
7449. STEWART, LINCOLN A., AND HEDGES, J. H. Asbestos in Arizona. Min. Jour. (Ariz.), vol. 28, No. 12, Nov. 15, 1944, pp. 7-8, 41.
- STICKNEY, W. A. See item 7185.
7450. STIPP, H. E. Boron. Sec. in Metal, Mineral and Mineral Fuel Review for 1938, State Geologists Jour., vol. 11, No. 2, October 1959, p. 14.
- STODDARD, C. K. See items 4837, 6673, 7010.
7451. STODDARD, CARL K., AND PIETZ, EMIL. (Assigned to the U.S.A. as Represented by the Secretary of the Interior.) Halides of Metals of Group IV, Tl Tetrahalide, Are Purified by Contact With at Least One Metal of the Group Below Fe in the Electromotive Series. U.S. Patent Appl. 706,498; Off. Gaz., vol. 631, 1950, p. 883.
7452. ——. (Assigned to the U.S.A. as Represented by the Secretary of the Interior.) Pieces of the Metal, Cu, Tumbled Through Liquid or Gaseous Tl Tetrahalides, Precipitating Impurities and Regenerating Clean Surfaces for Further Treatment. U.S. Patent Appl. 653,699; Off. Gaz., vol. 634, 1950, p. 1637.
7453. ——. (Assigned to the U.S.A. as Represented by the Secretary of the Interior.) Purification of Metal Halides. U.S. Patent Appl. 706,499; Off. Gaz., vol. 631, 1950, p. 884.
7454. ——. (Assigned to U.S.A. as Represented by the Secretary of the Interior.) Purification of Metal Halides. U.S. Patent Appl. 718,727; Off. Gaz., vol. 630, 1950, p. 605.
7455. STODDARD, C. K., COLE, S. S., ECK, L. T., AND DAVIS, C. W. Pilot-Plant Smelting of Ilmenite in the Electric Furnace. Iron Age, vol. 163, Mar. 3, 1949, pp. 100-109.
7456. STODDARD, C. K., MATTINGLY, K. L., LEIDICH, E. T., AND KNICKERBOCKER, R. G. Pilot-Plant Production of Electrolytic Magnesium From Magnesia. AIME Tech. Pub. 1848; Metals Technol., vol. 12, April 1945, pp. 1-25.
- STONE, K. L. See item 3783.
- STONE, M. C. See item 5046.
7457. STONE, W. F. Off-Site Facilities of Oil-Shale Industry. ASME, Pub. 52, PET-20, 1952, 10 pp.
7458. STOCHI, H. H. Acetylene Formation in Thermal Decomposition of Hydrocarbons. Symposium on Hydrocarbon Decomposition. Am. Chem. Soc., Petrol. Div. Meet., Chicago, Sept. 1933; Ind. and Eng. Chem., vol. 26, January 1934, pp. 56-60.
7459. ——. Activity and Activation Energy in Heterogeneous Catalysis of Gas Reactions. Jour. Am. Chem. Soc., vol. 57, August 1935, pp. 1305-1308.
7460. ——. Advances in Catalysis. Vol. 1, Academic Press, New York, 1948, pp. 115-153.
7461. ——. Catalysts in Synthetic Liquid-Fuel Processes. Ind. Eng. Chem., vol. 37, 1945, pp. 340-351; Oil Gas Jour., vol. 43, Sept. 16, 1944, p. 103; Petrol. Refiner, vol. 23, September 1944, p. 144.
7462. ——. Chemistry in Coal Hydrogenation. Chem. Rev., vol. 29, 1941, pp. 483-490.
7463. ——. Coal: Gas, Fuel, Chemicals. Chem. Eng., vol. 59, No. 7, July 1952, p. 304.
7464. ——. Coal Hydrogenation. Chemistry. Ind. Eng. Chem., vol. 29, December 1937, pp. 1367-1371.
7465. ——. Combustibili liquidi da carbone a scisti petroliferi. La Riv. combustib., vol. 6, No. 3, March 1952, pp. 139-163.
7466. ——. Contact Catalysis in Hydrogenation of Coal, Coal Tar, and Oil. 12th Rept., Nat. Res. Council, Committee on Catalysts; John Wiley & Sons, New York, 1940, pp. 82-92.
7467. ——. Correction to Coal Hydrogenation Paper. Ind. Eng. Chem., vol. 30, 1938, p. 200.
7468. ——. Dependence of Methane-Oxygen Low-Pressure Explosion Limit on Nature of Reaction Vessel Surface. Jour. Am. Chem. Soc., vol. 57, April 1935, pp. 683-686.
7469. ——. The Development of Processes for Producing Synthetic Liquid Fuels From Coal. Chem. Eng. News, vol. 26, 1948, pp. 3821-3822.
7470. ——. The Entropy and Free Energy of Methane. Jour. Am. Chem. Soc., vol. 53, April 1931, pp. 1200-1209; correction, vol. 53, December 1931, p. 4480.
7471. ——. Extraction of Potash From Polyhalite. Ind. Eng. Chem., vol. 22, September 1930, p. 634.
7472. ——. Federal Research on Synthetic Fuels By the Bureau of Mines. Oil Forum, vol. 7, No. 11, November 1953, pp. 420-422, 425; No. 12, December 1953, pp. 443-444, 453.
7473. ——. The Fischer-Tropsch and Related Syntheses. Am. Chem. Soc., The Crucible, vol. 31, No. 2, February 1946, pp. 52, 54, 56, 58, 60.
7474. ——. Fischer-Tropsch and Related Processes for Synthesis of Hydrocarbons by Hydrogenation of Carbon Monoxide. Advances in Catalysis. Academic Press, Inc., New York, vol. I, 1948, pp. 115-150.
7475. ——. The Fischer-Tropsch Process. Chap. in The Chemistry of Petroleum Hydrocarbons, B. T. Brooks and others, ed. Reinhold Publishing Corp., New York, N.Y., vol. 1, ch. 21, 1954, pp. 631-640.
7476. ——. Foreword to Synthetic Petroleum From the Synthine Process, by B. H. Well and J. C. Lane. Reuseen Press, Div. of Chemical Publishing Co., Inc., New York, N.Y., 1948, pp. III-IV.
7477. ——. Hydrogenation. Chap. in Research and Progress in the Production and Use of Coal. Nat. Res. Planning Board, Tech. Paper 4, 1941, pp. 45-49.
7478. ——. The Hydrogenation of Coal. A Discussion on American Researches. Petroleum, vol. 8, No. 5, May 1945, p. 98.
7479. ——. Hydrogenation of Coal and Tar. Chap. 38 in Chemistry of Coal Utilization, H. H. Lowry, ed., John Wiley & Sons, New York, vol. 2, 1945, pp. 1760-1790.
7480. ——. Hydrogenation of Coal. A Round-Table Discussion. Ind. Eng. Chem., vol. 36, 1944, pp. 291-298.
7481. ——. Kinetics of Ethylene Polymerization. Jour. Am. Chem. Soc., vol. 56, February 1934, pp. 374-378; vol. 57, December 1935, pp. 2508-2601.
7482. ——. Liquid Fuels From Coal and Oil Shale. Advances in Chemistry ser. 5, Progress in Petroleum Technology. Am. Chem. Soc., 1951, pp. 138-150.
7483. ——. Motor-Fuel Synthesis Process Described. Oil Gas Jour., vol. 44, No. 20, Nov. 1, 1947, pp. 96-97.
7484. ——. Oil Can Be Had—For a Price. Ind. and Power, vol. 54, No. 4, April 1948, pp. 80-88.
7485. ——. Problems in the Chemistry and Chemical Utilization of Coal. Jour. Inst. Fuel, vol. 28, No. 171, April 1955, pp. 154-163.
7486. ——. Problems in the Physical Chemistry of Coal. 2d Conf. on Origin and Constitution of Coal, Nova Scotia Dept. of Mines and Nova Scotia Research Foundation, June 18-20, 1952; Proc. Nova Scotia Dept. of Mines, Halifax, 1954, pp. 303-393; disc., pp. 391-394.

7487. STORCH, H. H. Production of Gasoline From Coal and Other Products. Hearings Before Subcommittee of Committee on Mines and Mining, House of Representatives, 77th Cong., 2d Sess., 1942, pp. 38-44.
7488. ——. Research and Development on the Conversion of Coal to Gas, Liquid Fuels, and Bulk Organic Chemicals. Canadian Min. and Met. Bull., vol. 46, No. 499, November 1953, pp. 690-694; Trans. Min. Soc. Nova Scotia, vol. 60, 1953, pp. 376-380; South African Min. and Eng. Jour., vol. 64, part 2, Jan. 30, 1954, pp. 791, 793, 795, 797.
7489. ——. Synthesis Gas From Methane, Oxygen, and Steam. Chap. 35 of vol. II, *The Chemistry of Hydrocarbons*, B. T. Brooks and others, ed. Reinhold Publishing Corp., New York, N.Y., 1955, pp. 357-364.
7490. ——. Synthesis of Hydrocarbons From Water Gas. Chap. 39 in *Chemistry of Coal Utilization*, H. H. Lowry, ed. John Wiley & Sons, New York, 1943, vol. 2, pp. 1797-1845.
7491. ——. Synthetic Liquid Fuel Processes. Ind. Eng. Chem., vol. 45, No. 7, July 1953, pp. 1444-1447.
7492. ——. Synthetic Liquid-Fuel Processes—Their Development in Great Britain and Germany and a Suggested Program for the United States. Statement Before War Minerals Subcommittee of Committee on Public Lands and Surveys, U.S. Senate, 78th Cong., 1st Sess., on S. 1243, Pittsburgh, Pa., Aug. 6, 1943, pp. 193-208, 268-273.
7493. ——. The Thermal Decomposition of Methane by a Carbon Filament. Jour. Am. Chem. Soc., vol. 54, No. 11, November 1932, pp. 4188-4198.
7494. ——. Twenty-Five Years of Progress in Petroleum Technology. Liquid Fuels from Coal and Oil Shale. Advances in Chem. Ser., No. 5, August 1951, pp. 138-150.
7495. ——. Use No. 18—Coal Hydrogenation. Natl. Assoc. Purch. Agents, Pub. 21, ser. 26, 1938, 1 p.
7496. ——. Disc. of "Bureau of Mines Research on the Hydrogenation and Liquefaction of Coal and Lignite," by Arno C. Fieldner, Henry H. Storch, and Lester L. Hirst. Trans. AIME, Coal Div., vol. 157, 1944, p. 360.
7497. ——. Disc. of "Condition of Water in Coals of Various Ranks" by A. W. Ganger. Trans. AIME, Coal Div., vol. 101, 1932, pp. 103-104.
7498. ——. Rev. of "Advances in Catalysis and Related Subjects," by W. G. Frankenburg, V. I. Komarewsky, and E. K. Rideal. Sci. Monthly, vol. 76, No. 2, February 1953, pp. 114-115.
7499. ——. Rev. of "Das Kohlenoxyd. Seine Bedeutung und Verwendung in der technischen Chemie," by Jurgens Schmidt. (Carbon Monoxide. Its Significance and Use in Technical Chemistry.) Ind. Eng. Chem. (news ed.), vol. 13, Jun. 20, 1931, p. 33.
7500. ——. Rev. of "Development of Processes for Synthesis of Liquid Fuels by Hydrogenation of Carbon Monoxide." Chem. Eng. Prog., vol. 44, No. 6, June 1948, pp. 469-480.
7501. ——. Rev. of "Progress in Coal Science," by D. H. Bangham. Jour. Phys. Coll. Chem., vol. 55, part 2, No. 6, June 1951, pp. 1109-1110.
- . See items 167, 168, 173, 180, 311, 313, 529, 1181, 1185, 1217, 1528, 2058, 2080, 2093, 2455, 2461, 2484, 2550-2557, 3064, 3124, 3474, 3691, 3692, 3694-3696, 4702, 5878, 5880, 6594, 8878, 8879, 7418, 8243, 8244, 8248, 8412, 8549.
7502. STORCH, H. H., AND FIELDNER, A. C. Coal Hydrogenation; Bureau of Mines Experimental Plant. ASME Meeting, Oct. 18-15, 1938, 12 pp. and 7 suppl. sheets; Mech. Eng., vol. 61, 1939, pp. 605-611.
7503. ——. Hydrogenation and Liquefaction of American Coals. Univ. of West Virginia Bull. 40, pp. 6-11; Tech. Bull. 15, 1939, pp. 99-138; disc. pp. 138-137.
7504. STORCH, H. H., AND FRAGEN, N. Extraction of Potash From Polyhalite. II. Production of Syngenite and By-Product Magnesia. Ind. Eng. Chem., vol. 23, September 1931, pp. 901-905.
7505. STORCH, H. H., AND GOLDEN, P. L. Preparation of Pure Methane from Natural Gas. Jour. Am. Chem. Soc., vol. 54, December 1932, pp. 4682-4683.
7506. ——. Synthesis of Acetylene by the Pyrolysis of Methane. Ind. Eng. Chem., vol. 26, July 1933, pp. 768-771.
7507. STORCH, H. H., AND HIRST, L. L. Coal Liquefaction by Hydrogenation. U.S. Patent 2,484,271, Mar. 16, 1949.
7508. STORCH, H. H., AND KASSEL, LOUIS S. The Pyrolysis of Ethane. Jour. Am. Chem. Soc., vol. 59, July 1937, pp. 1240-1246.
7509. STORCH, H. H., AND MONTGOMERY, O. W. Equation for Hydrogen-Oxygen Explosion Limits. Jour. Am. Chem. Soc., vol. 56, December 1934, pp. 2644-2646.
7510. STORCH, H. H., AND PELIPETZ, M. G. Hydrogenation Liquefaction of Coal, Employing Zinc Catalysts. U.S. Patent 2,600,142, Aug. 5, 1952.
7511. STORCH, H. H., AND PINKEL, I. I. Preparation of an Active Cobalt-Copper Catalyst for the Water-Gas Shift Reaction. Ind. Eng. Chem., vol. 29, June 1937, p. 715.
7512. STORCH, R. H., AND ROBERTSON, A. F. Beaver Creek Monazite Placer Area, Valley County, Idaho. U.S. AEC, RME-3132, 1954, 15 pp.
7513. STORCH, H. H., ELLIOTT, M. A. AND ORCHIN, M. Rev. of "Coal, Coke, and Coal Chemicals," by P. J. Wilson, Jr. and J. H. Wells. Chem. Eng. News, vol. 28, No. 16, Apr. 17, 1950, pp. 1327-1328.
7514. STORCH, H. H., HAWK, C. O., AND O'NEILL, W. E. How to Convert Coal Into Oil. Coal Age, vol. 46, October 1941, p. 163.
7515. ——. Kinetics of Hydrogen Consumption, Oxygen Elimination, and Liquefaction in Coal Hydrogenation. Nature of the Catalytic Reaction. Jour. Am. Chem. Soc., vol. 64, 1942, pp. 230-230; Coal Age, vol. 46, October 1941, p. 103.
7516. STORCH, HENRY H., GOLUBIO, NORMA, AND ANDERSON, ROBERT B. *The Fischer-Tropsch and Related Syntheses Including a Summary of Theoretical and Applied Content Catalysis*. John Wiley & Sons, Inc., New York; Chapman & Hall, Ltd., London, 1951, 610 pp.
7517. STORCH, H. H., HIRST, L. L., FISHER, C. H., WORK, H. K., AND WAGNER, F. W. Hydrogenation of High-Temperature Tar From Byproduct Coke Ovens. Ind. Eng. Chem., vol. 33, 1941, pp. 284-274.
7518. STORCH, H. H., HIRST, L. L., GOLDEN, P. L., PINKEL, I. I., BOYER, R. L., SCHAEFFER, J. R., AND KALLENBERGER, R. H. Coal Hydrogenation. Bureau of Mines Experimental Plant. Ind. Eng. Chem., vol. 29, December 1937, pp. 1377-1380; Coal Age, vol. 42, October 1937, pp. 98, 100.
7519. ——. Coal Hydrogenation—Bureau of Mines Experimental Plant. Fuel Econ., vol. 14, 1938, pp. 292-299.
7520. STORCH, RICHARD H., AND ROBERTSON, A. F. Beaver Creek Monazite Placer Area, Valley County, Idaho. AEC, Oak Ridge, Tenn., Tech. Inf. Service Extension, 1954, 15 pp.

7523. STORM, C. G., Effect of the Nitrotoluenes on the Determination of Nitroglycerin by Means of the Nitrometer. 8th Internat. Cong. Appl. Chem., vol. 4, 1912, pp. 117-125; disc., vol. 27, p. 44.
7524. STORMS, WALTER. New Mexico Industry Activity—1948. Min. World, vol. 2, No. 5, April 15, 1949, pp. 87-89.
7525. —. U.S. Bureau of Mines Work in New Mexico. New Mexico Miner and Prospector, vol. 10, March 1948, p. 1.
7526. STOTT, ROY G., PYNNONEN, REINO O., AND JOHNSON, JOHN A. Central Mine Rescue Station, Cleveland-Cliffs Iron Co., Mather Mine "A" Shaft, Negaunee, Mich. Skillings' Min. Rev. vol. 43, No. 39, Jan. 1, 1955, pp. 1-4.
- STOUT, W. See item 7548.
- STRANBERG, KARL G. See items 4338, 4339.
7527. STRANGE, EURY E. Determination of Lithium in a Magnesium Alloy by the Flame Photometer. Anal. Chem., vol. 25, No. 4, April 1953, pp. 650-651.
- STRASSEER, A. See item 8377.
7529. STRAUER, A. A. Ventilation of Vehicular Tunnels. Part IV. Details of Tests in Vehicular Tunnels in Experimental Mine. Appendix B. Air Measurements and Air Distribution. Jour. Am. Soc. Heat. and Vent. Eng., vol. 32, 1920, pp. 658-663.
- . See items 2485-2488.
7531. STRAUER, A. A., JONES, G. W., AND FIELDNER, A. C. Automobile Gases and Vehicular-Tunnel Ventilation. Jour. Soc. Auto. Eng., vol. 8, 1921, pp. 295-305.
7532. STRIMBECK, G. R. Atomic Energy in the Gas Industry—The Joint Atomic Energy Commission-Bureau of Mines Program. Am. Gas Assoc. Monthly, vol. 38, October 1950.
7533. —. Use of Oxygen in Production of Synthesis Gas. Chem. Eng. News, vol. 28, 1950, p. 1922.
7534. STRIMBECK, G. R., CORDNER, J. B., JR., TAYLOR, H. G., PLANTS, K. D., AND SCHMIDT, L. D. Preliminary Operating Results on Pressure-Gasification Pilot Plant Utilizing Pulverized Coal and Oxygen. Proc. Am. Gas Assoc., 1952, pp. 778-817.
7535. STRIMBECK, G. R., HOLDEN, J. H., McGEE, J. P., AND HIRST, L. L. Recent Work by the Bureau of Mines on the Gasification of Pulverized Coal. Proc. Am. Gas Assoc., 1955, pp. 1006-1037.
7536. STRIMBECK, G. R., HOLDEN, J. H., ROCKENBACK, L. P., CORDNER, J. B., JR., AND SCHMIDT, L. D. Pilot Plant Gasification of Pulverized Coal With Oxygen and Highly Superheated Steam. Am. Gas Assoc. Tech. Paper PC-50-11, May 1950, 64 pp.
7537. STRIMBECK, G. R., McGEE, J. P., AND KATELL, S. Atomic Energy in the Gas Industry. The Joint Atomic-Energy Commission—Bureau of Mines Program. Am. Gas Assoc. Monthly, vol. 38, no. 10, October 1956, pp. 35-38, 50-52.
- STRONG, R. H. See item 5802.
- STROUD, B. K. See item 7084a.
- STROUD, LOWELL See item 845.
- STRUNK, A. T. See item 7168.
7538. STULL, R. T. Behavior Under Brass Foundry Practice of Crucibles Containing Ceylon, Canadian, and Alabama Graphites. Jour. Am. Ceram. Soc., vol. 2, 1919, pp. 208-220.
7539. —. Experimental Separation of Lime in Dolomite. Jour. Franklin Inst., vol. 190, 1920, p. 139.
7540. —. Government Service in Developing the Clay Industry. Clay Worker, March 25, 1920.
7541. —. Graphites and Bond Clays for Crucible Making Purposes. Proc. Am. Min. Cong., vol. 22, 1919, pp. 700, 780.
7542. —. Need of Technical Assistance in the Brick Industry. Jour. Am. Ceram. Soc., vol. 3, No. 3, March 1920.
7543. —. Position of Clay Products in the Field of Earthenware Products. Brick and Clay Rec., March 6, 1919.
7544. STULL, R. T., AND BOLE, G. A. Refractory Possibilities of Some Georgia Clays. Jour. Am. Ceram. Soc., vol. 6, 1923, pp. 663-673.
7545. —. Utilization of Georgia Kaolins in the Manufacture of Face Brick. Jour. Am. Ceram. Soc., vol. 7, May 1924, pp. 347-358.
7546. —. Washing Tests of Georgia Clays. Jour. Am. Ceram. Soc., vol. 6, 1923, pp. 730-747.
7547. STULL, R. T., AND SCHURECHT, H. G. Effect of Variable Pressure and Tar Content on the Briquetting of Alabama Graphite. Jour. Am. Ceram. Soc., vol. 2, 1919, pp. 391-390.
7548. STULL, R. T., STOUT, W., McCaughey, W. J., AND DEMOREST, D. J. Coal Formation Clays of Ohio. Geol. Survey of Ohio, Bull. 26, 1923, Fourth series.
7549. STYANFIELD, K. E. Rev. of "The Properties of Asphaltic Bitumen," by J. P. Pfeiffer. Chem. Eng. News, vol. 29, No. 6, February 1951, p. 504.
- SUGDEN, D. P. See item 1783.
7550. SULLIVAN, J. D. Apparatus for Circulating Liquids. Eng. Min. Jour., vol. 130, No. 8, Oct. 23, 1930, p. 380.
7551. —. Device for Maintaining a Constant Rate of Flow of Liquids. Jour. Ind. Eng. Chem., anal. ed., vol. 1, No. 4, Oct. 15, 1920, p. 233.
7552. —. Leaching Copper From Its Ores. Jour. Chem. Ed., vol. 8, May 1931, pp. 829-847.
- . See items 2841, 7768.
- SUMMERS, C. R. See items 2829, 2830.
7553. SUN, BOZEN, RUOF, C. H., AND HOWARD, H. C. Thermal Decomposition of Coal in High Vacuum. Fuel, vol. 37, 1958, pp. 299-308.
- SUTHERLAND, R. L. See item 2715.
- SUTTON, C. E. See items 3691, 3692.
- SVEDI, A. M. See items 2196, 2762.
- SWAINSON, S. J. See item 5841.
7554. SWANSON, E. B. Domestic Fuels Other Than Anthracite. III. Heating With Oil. Trans. Fuel Conf., World Power Conf., London, 1928, vol. 2, pp. 338-345.
7555. —. Economic Data on Oil Industry Provided by Federal Surveys. U.S. Daily, Nov. 10, 1929, p. 8.
7556. —. Fuel Oil Marketed on Pacific Coast During the Year 1926. Oil Gas Jour., vol. 26, June 2, 1927, p. 147.
7557. —. Gasoline Exports Not To Return to Former Levels Soon. Nat. Petrol. News, vol. 24, Mar. 2, 1932, p. 38.
7558. —. The Gasoline Situation Abroad. Oil Gas Jour., vol. 30, Dec. 17, 1931, p. 10.
7559. —. Iron Horses Prefer Oil. Oil Bull., vol. 13, 1927, pp. 361-364.
7560. —. National Survey of Fuel Oil Distribution, 1926. Am. Petrol. Inst., November 1927, 22 pp.
7561. —. National Survey of Fuel Oil Distribution, 1927. Am. Petrol. Inst., October 1928, 27 pp.; Oil Weekly, vol. 52, Jan. 4, 1929, pp. 64-66.
7562. —. National Survey of Fuel Oil Distribution, 1928. Am. Petrol. Inst., December 1929, 28 pp.

7563. SWANSON, E. B. National Survey of Fuel Oil Distribution. 1929. Am. Petrol. Inst., November 1930, 30 pp.
7564. ——. Natural Gas—A Summary of Available Data Relating to Supply and Demand. Proc. Am. Gas Assoc., vol. 2, 1930, pp. 335-338.
7565. ——. Natural Gas in New York State. Pamphlet form by Empire State Gas and Electric Assoc., 1931, 11 pp.
7567. ——. Oil for Domestic Heating. Trans. Fuel Conf., London, vol. 2, 1928, pp. 338-345.
7568. ——. The Petroleum Industry in Iraq. 1932. AIME, vol. 103, 1933, pp. 401-403.
7569. ——. Railroads Use One-Fifth of Fuel Oil. Oil Gas Jour., vol. 25, January 27, 1927, pp. 88, 180.
7570. ——. Service of Information for Petroleum Industry. U.S. Daily, May 18, 1932, p. 8.
7571. ——. Some Influences of Foreign Demand on the Domestic Oil Situation. Trans. AIME, vol. 98, 1932, p. 109.
7572. ——. Sources and Distribution of Petroleum. Oil Gas Jour., vol. 25, April 14, 1927, pp. 64, 160, 162.
7573. ——. Synthetic Earthquakes Created by Dynamite Aid Oil Explorers. Explosives Eng., July 1920, p. 249.
7574. ——. What the President is Seeing in Alaska. Explosives Eng., vol. 1, 1923, pp. 125-129.
- . See item 4456.
7575. SWARTZ, J. H. Disc. of "A Contribution to the Theory of the Interpretation of Resistivity Measurements Obtained From Surface Potential Observations" by R. J. Watson. Trans. AIME, vol. 110; Geophysical Prospecting, 1934, pp. 233-234.
7584. TALIAFERRO, D. B. Conservation of Petroleum Reservoir Energy. Petroleum Exploration and Research in the United States and a Review of World Supply. 1957. Symp. on Development of the Petroleum Resources of Asia and the Far East. 1958, pp. 81-106.
7585. ——. Secondary Recovery Research of the Bureau of Mines. Independent Monthly, vol. 17, No. 6, October 1940, pp. 16-18.
7586. ——. Some Observations in Yugoslavia, 1952. World Oil, vol. 137, Aug. 15, 1953, p. 174.
7587. ——. Some Results of Secondary Recovery Operations and Related Problems. Producers Monthly, vol. 12, No. 6, April 1948, pp. 22-29.
7588. ——. 1943-45 Supplement to A.P.I. Bibliography on Secondary Recovery of Oil. Proc. 25th ann. meeting, Am. Petrol. Inst., Production Bull. 231, November 1945, pp. 15-28.
7589. ——. Supplement to A.P.I. Bibliography on Secondary Recovery. Am. Petrol. Inst. Bull., 1948, 36 pp. ——. See items 1168, 1861, 4037-4040, 6213, 6219, 8557.
7590. TALIAFERRO, D. B., AND GATES, GEORGE L. Pressure Coring. Am. Petrol. Inst. Production Bull. 231, 1945, pp. 78-88.
7591. TALIAFERRO, D. B., AND GUTHRIE, R. K. Results of Water-Flooding Oil Sands in North and North Central Texas. Producers Monthly, vol. 11, No. 5, March 1947, pp. 15-20.
7592. TALIAFERRO, D. B., AND HAMONTRE, H. C. Well-Head Stuffing Box for Armored Electric Cable. Oil Gas Jour., vol. 47, Dec. 9, 1948, pp. 105, 108.
7593. TALIAFERRO, D. B., AND RAILL, CLEO G. 1949 Supplement to Bibliography on Secondary Recovery. Am. Petrol. Inst. pamphlet, 1950, 16 pp.
7576. SWARTZMAN, E., BOTHMAN, J. C., TIBBETT, T. E., BURROUGH, E. J., AND BIRCH, G. W. A Study of the Relation Between the Properties of Cokes Produced by Means of Two Laboratory Methods and Coke Produced Industrially. Canadian Dept. of Mines and Tech. Surveys, Mines Branch Rept. IR 58-138, Aug. 11, 1958, 68 pp.
- . SWEENEY, S. A. See items 372, 374.
- . SWEET, A. T. See items 6732, 6733.
7577. SWIGART, T. E. Experiments With Fluids in Oil-Soaked Sandstones. Tulsa World, special ed., October 1923.
- . See item 4456.
7578. SWIGART, T. E., AND SCHWARZENBEK, F. X. Petroleum Engineering in the Hewitt Oil Field, Carter County, Okla., 1921. Distributed by the Ardmore, Okla. Chamber of Commerce.
- SWINDLER, C. M. See item 7224.
7580. SYMONDS, FRED L., LAUGHLIN, PAUL W., SKINNER, L. C., BATCHELDER, H. R., AND DONATH, E. E. Potential New Source of Utility Gas Supply Offered by Synthesis Program—Impact of Synthetic Fuels. Am. Gas Assoc. Monthly, vol. 31, Nos. 7-8, July-August 1949, pp. 18-20, 24.
7581. ——. Synthetic Fuel Processes May be Future Source of Utility Gas. Am. Gas Jour., vol. 171, No. 1, July 1949, pp. 19-21.
7582. ——. Impact of Synthetic Fuels. Am. Gas Assoc. Monthly, vol. 31, Nos. 7-8, July-August 1949, pp. 18-20, 24.
7583. ——. Public Utility Gas as a Byproduct of Synthetic Liquid Fuels Production. Proc. Am. Gas Assoc., 1949, pp. 789-795.

## T

7594. TALIAFERRO, D. B., AND STANFIELD, K. E. Asphaltic Sands Found to Occur in Oil Fields. Bull. Am. Assoc. Petrol. Geol., vol. 30, 1946, pp. 616-619; Chem. Abs., vol. 40, 1946, No. 15, p. 4323; Producers Monthly, April 1946, pp. 18-19.
7595. ——. Asphaltic Sands Occurring in Oil Fields. World Oil, April 1949, pp. 82-85, 88-92.
7596. TALIAFERRO, D. B., McCLEUNG, C. F., AND MUELLER, F. G. Instrument for Locating the Liquid Level in Well. U.S. Patent 2,610,506, Sept. 16, 1952.
- TARN, W. H. See items 177, 3263, 3264.
- TAPLEY, E. C. See item 1.
- TAYLOR, C. A. See items 2456, 6586.
7597. TAYLOR, CARL A., AND BUXTON, E. P. Silver Fulminate, an Initiator of Detonation. Army Ordnance, vol. 6, No. 92, September-October 1925, pp. 118-119.
7598. ——. The Explosive Properties of the Silver Salts of Some of the Nitro-Aromatic Compounds and Silver Oxalate. Army Ordnance, vol. 5, 1925, pp. 824-825; vol. 7, July-August 1926, pp. 68-69.
7599. TAYLOR, CARL A., AND RINKENBACH, WILLIAM H. The Analysis of TNT-Tetryl Mixtures. Ind. Eng. Chem., vol. 15, No. 3, March 1923, pp. 280-281.
7600. ——. Estimation of the Proportions of TNT and Tetryl From the Freezing Point Curve. Ind. Eng. Chem., vol. 16, No. 1, January 1923, pp. 73-74.
7601. ——. Ethylene Glycol—An Evaluation of Available Information on the Physical Properties of This Compound. Ind. Eng. Chem., vol. 18, No. 7, July 1926, pp. 670-678.
7602. ——. The Freezing Point-Solubility Diagram of the System Tetryl-Picric Acid. Ind. Eng. Chem., vol. 15, 1923, p. 705.

7603. TAYLOR, CARL A., AND RINKENBACH, WILLIAM H. H.M.T.D.—A New Detonating Explosive. Army Ordnance, vol. 5, No. 25, July-August 1924, pp. 403-406.
7604. ——. The Physical Properties of Ethylene Glycol. Ind. Eng. Chem., vol. 18, July 1926, pp. 678-678.
7605. ——. The Properties of Glycol Diacetate. Jour. Am. Chem. Soc., vol. 48, June 1926, pp. 1305-1309.
7606. ——. A Sensitive Form of Silver Fulminate. Army Ordnance, vol. 6, May-June 1926, p. 448.
7607. ——. Sensitivity of Detonating Compounds to Frictional Impact, Impact and Heat. Jour. Franklin Inst., vol. 204, October 1927, pp. 309-370.
7608. ——. Silver Azide: An Initiator of Detonation. Army Ordnance, vol. 5, May-June 1925, pp. 824-825.
7609. ——. The Solubility of Trinitro-Phenylmethyl-Nitramine (Tetryl) in Organic Solvents. Jour. Am. Chem. Soc., vol. 45, March 1923, pp. 104-107.
7610. ——. The Solubility of Trinitrotoluene in Organic Solvents. Jour. Am. Chem. Soc., vol. 45, 1923, pp. 44-59.
7611. ——. The Specific Heats of Trinitrotoluene, Tetryl, Picric Acid and Their Molecular Complexes. Jour. Am. Chem. Soc., vol. 46, June 1924, pp. 1504-1510.
7612. ——. The Specific Heat of Smokeless Powder. Army Ordnance, vol. 5, November-December 1924, p. 618.
7613. ——. Stereo-Isomeric Forms of Bis(Trimethyl-ethylene Nitrosate). Jour. Am. Chem. Soc., vol. 48, July 1926, pp. 1884-1887.
7614. TAYLOR, E., AND JOHNSTONE, H. F. Determination of the Sulphur Content of Gases From Boiler Furnaces. Ind. Eng. Chem. (anal. ed.), vol. 1, No. 4, Oct. 15, 1920, pp. 197-199.
- TAYLOR, EDMUND. See items 5728, 7218, 7217.
- TAYLOR, F. W. See item 4622.
7615. TAYLOR, G. B. Apparatus for Analysis of Complex Gas Mixtures. Ind. Eng. Chem., vol. 6, 1914, pp. 845-848.
7616. ——. High Explosive Primers. Canadian Chem. Jour., vol. 2, pp. 7-8.
7617. ——. Hygroscopic Properties of Black Powder. Ind. Eng. Chem., vol. 11, 1919, p. 1032.
- . See items 6169, 6170.
7618. TAYLOR, G. B., AND CAPP, J. H. Effect of Phosphine and Hydrogen Sulphide on Oxidation of Ammonia to Nitric Acid. Ind. Eng. Chem., vol. 11, 1919, pp. 27-28.
7619. ——. Effect of Acetylene on Oxidation of Ammonia to Nitric Acid. Ind. Eng. Chem., vol. 10, 1918, pp. 457-459.
7620. TAYLOR, GUY B., AND COPE, WILLARD C. Hygroscopic Properties of Sodium, Potassium and Ammonium Nitrates, Potassium Chlorate and Mercury Fulminate. Chem. Met. Eng., vol. 15, No. 3, Aug. 1, 1916, pp. 140-143.
7621. TAYLOR, G. B., AND DAVIS, J. D. Analytical Control of Ammonia-Oxidation Process. Ind. Eng. Chem., vol. 9, 1917, pp. 1100-1110.
7622. TAYLOR, G. B., AND HULETT, G. A. Catalytic Decomposition of Certain Oxides. Jour. Am. Chem. Soc., vol. 44, 1922, pp. 1443-1445.
7623. TAYLOR, G. CLEVELAND. Tractor-Mounted Jumbo Enases Manpower Situation. Eng. Min. Jour., vol. 140, January 1945, pp. 64-65.
- TAYLOR, H. G. See item 7534.
- TAYLOR, J. A. See item 8604.
7624. TAYLOR, SAM S. Bureau of Mines Petroleum Production Research in the Appalachian Region. Producers Monthly, vol. 17, No. 6, April 1953, pp. 40-40.
7625. ——. Disc. of "Reporting the Results of Water Analysis," by Robt. O. Adams. Proc. ASTM, vol. 40, pt. 2, 1940, pp. 1314-1316.
- . See item 8270.
7626. TEAGUE, M. C. Determination of Carbon Monoxide in Air Contaminated With Motor Exhaust Gas. Ind. Eng. Chem., vol. 12, 1920, pp. 904-908.
- . See items 2475, 2489, 3557.
- TEAGUE, W. W. See items 3812-3818.
- TEICHMAN, H. L. See item 7287.
7628. TEICHMUELLER, M. AND PARKS, B. C. Comparison of Microscopical Analyses of Coal by Transmitted and Reflected Light Methods. Proc. Internat. Committee for Coal Petrology, No. 2, 1956; Secretariat Westwall 124, Krefeld, Germany.
- TENNEY, R. F. See items 489, 490, 2016, 2017.
7630. TENNEY, R. F., DRESSLER, R. G., AND REMMERT, H. A. Apparatus for Performing the Fischer-Tropsch Reaction. U.S. Patent 2,789,888, Apr. 23, 1957.
- TEWS, J. L. See item 5429.
7631. TEWS, JOAN L., AND MAY, SHERMAN L. Separating Tantalum and Niobium by Solvent Extraction. Cobaltium (Niobium) Symposium, Washington, D.C., 1958, pp. 38-63.
- THACKWELL, F. E. See items 3519, 3520.
- THATCHER, JOHN. See item 1086.
7632. THIESSEN, R. Compilation and Composition of Bituminous Coals. Jour. Geol., vol. 28, 1920, pp. 185-209.
7633. ——. Classification of Coal, From the Viewpoint of the Paleobotanist. AIME Tech. Pub. 156, November 1928, pp. 28-48; Trans. AIME, Coal Div., 1930, pp. 410-437.
7634. ——. Components of Coal as Seen Through the Microscope. Am. Gas Assoc. Monthly, vol. 13, July 1931, pp. 302-303; Chemicals, vol. 35, June 1, 1931, p. 31.
7635. ——. Constitution of Coal Through a Microscope. Proc. Coal Min. Inst. America, 1919, pp. 34-45.
7636. ——. Constitution and Genesis of Certain Lignites and Sub-Bituminous Coals. 8th Internat. Cong. App. Chem., vol. 25, 1912, pp. 203-204.
7637. ——. The Microscopic Structure of Coals of the Monongahela Series. Proc. West Virginia Acad. Sci., 1930, pp. 159-198.
7638. ——. The Microscopical Constitution of Coal. Trans. AIME, vol. 71, 1925, pp. 86-116.
7639. ——. Nature of Coal. Trans. AIME, vol. 65, 1921, pp. 224-227.
7640. ——. The Microstructure of Coal. Jour. Roy. Soc. Arts (London), vol. 74, 1926, pp. 535-567.
7641. ——. Occurrence and Origin of Finely Disseminated Sulphur Compounds in Coal. Trans. AIME, vol. 63, 1920, pp. 913-926; disc. pp. 920-931.
7642. ——. Origin and Composition of Certain Oil-Shales. Econ. Geol., vol. 16, 1921, pp. 289-300.
7643. ——. Origin of Boghead Coals. U.S. Geol. Survey Prof. Paper 132-I, 1925, pp. 121-135.
7644. ——. Physical Structure of Coal, Cellulose Fiber and Wood as Shown by Spierer Lens. Ind. Eng. Chem., vol. 24, September 1932, pp. 1032-1041; The Indian Forester, vol. 59, November 1933, pp. 724-729.

7645. THIESSEN, R. Origin and Constitution of Coal. Proc. Wyoming Hist. and Geol. Soc., Wilkes-Barre, Pa., vol. 19, 1924, 44 pp.
7646. —. Recent Developments in the Microscopic Study of Coal. Proc. Coal Min. Inst. America, 1920, pp. 88-121; reprint in Coal Age, vol. 18, 1920, pp. 1183-1189, 1223-1228, 1275-1279; vol. 19, 1921, pp. 12-15.
7647. —. Some Recent Developments on the Constitution of Coal. Proc. 2d Internat. Conf. on Bit. Coal, Carnegie Inst. Technol., 1928, vol. 1, 1929, pp. 695-767.
7648. —. Splint Coal. Trans. AIME, Coal Div., 1930, pp. 644-672.
7649. —. Structure of Graphite in Relation to Crucible Making. Jour. Am. Ceram. Soc., vol. 2, 1919, pp. 508-542.
7650. —. What is Coal? Proc. Fuel Eng., Appalachian Coals, Inc., vol. 4, July 1930-March 1937, pp. 211-272; disc. pp. 273-279.
7651. —. Disc. of "Angle of Polarization as an Index of Coal Rank," by L. C. McCabe and T. T. Quirk. Trans. AIME, Coal Div., vol. 130, 1938, pp. 454-455.
7652. THIESSEN, R., AND JOHNSON, R. C. An Analysis of a Peat Profile. Ind. Eng. Chem., anal. ed., vol. 1, Oct. 15, 1929, pp. 216-220; Fuel, vol. 9, August 1930, pp. 367-372.
7653. THIESSEN, REINHARDT, AND SPRUNK, G. C. The Origin of the Finely Divided or Granular Opaque Matter in Splint Coals. Fuel, vol. 15, November 1936, pp. 304-315.
7655. —. The Effect of Heat on Coal as Revealed by the Microscope. Fuel, vol. 13, April 1934, pp. 118-125.
7656. —. Spores of Certain American Coals. Fuel, vol. 11, October 1932, pp. 360-370.
7657. THIESSEN, REINHARDT, LOWRY, H. H., BERL, E., CADY, G. H., AND STADNICHENKO, T. Studies of the Origin and Natural History of Bituminous Coal. Rept. of Committee on Bituminous Res. Planning, AIME, 1936, pp. 1-4.
7658. THIESSEN, REINHARDT, LOWRY, H. H., BERL, E., CADY, G. H., STADNICHENKO, T., AND GAUGER, A. W. Studies Concerning the Constitution, Structure, and Properties of Bituminous Coal. Rept. of Committee on Bituminous Res. Planning, AIME, 1936, pp. 25-27.
7659. THOENEN, J. R. Activities of the Bureau of Mines in Major Nonmetallic Industries. Rock Products, vol. 31, Dec. 22, 1928, pp. 164-166.
7660. —. Aggregate Statistics. Pit and Quarry, vol. 26, June 1934, p. 43.
7661. —. Earth Vibrations From Quarry Blasts. Crushed Stone Jour., vol. 13, March-April 1938, pp. 21-27.
7662. —. Economics of New Sand and Gravel Development. Bull. Nat. Sand and Gravel Assoc., May 1930, p. 10.
7663. —. Mineral Wool—The Mining Industry's Fastest-Growing Product. Min. and Met., vol. 20, 1939, pp. 101-105; Mech. Eng., vol. 61, 1939, pp. 384-385.
7664. —. Mining Grecian Magnetite. Eng. Min. Jour., vol. 125, Apr. 21, 1928, pp. 644-648; AIME Tech. Pub. 67; Min. and Met., vol. 9, February 1928, p. 79.
7665. —. More Anew Dragline Dredges. Min. and Met., vol. 19, 1938, p. 289 (letter to ed).
7666. —. A Nonmetallic Minerals Division is Suggested. AIME, Min. and Met., vol. 16, February 1935, p. 102.
7667. —. Progress in the Sand and Gravel Industry. Rock Products, vol. 32, Jan. 5, 1929, pp. 64-65.
7668. —. Progress in Studies of Mining Methods in the Nonmetallic Industries by the Bureau of Mines. Rock Products, vol. 34, Jan. 17, 1931, pp. 44-45.
7669. —. Progress in Study of Quarry Costs. Rock Products, vol. 33, No. 1, 1930, pp. 135-136.  
—. See items 4070, 6107, 7408.
7670. —. Quarry, Military, Techniques and Equipment, Project 8-68-11-001. Prepared for and Submitted to the Army Engineers, May 1950.
7671. —. Relation of the Bureau of Mines to the Nonmetallic Industries. Rock Products, vol. 35, Feb. 13, 1932, pp. 38-43.
7672. —. A Resume of Bureau of Mines Experience With Oversize Core Barrels. AIME Tech. Pub. 2385, vol. 12, No. 3, 1948, 9 pp.
7673. —. Sampling Florida Dune Sands. Rock Products, vol. 53, No. 6, June 1950, pp. 132-134.
7674. —. Sand and Gravel. Industrial Minerals and Rocks, AIME, 1937, pp. 671-720.
7675. —. Sand and Gravel Industry Produces Large Tonnage of Minerals. Rock Products, vol. 57, No. 5, May 1954, pp. 104, 106, 108, 111-116.
7676. —. State in 1927. Rock Products, Ann. Rev. No., vol. 30, January 1928, p. 116.
7677. —. Stabilization of the Mineral Aggregates Industries. Rock Products, vol. 35, Jan. 9, 1932, pp. 88-91.
7678. —. Suggested Classification of Surface Mining Methods. AIME Tech. Pub. 604, February 1935, 2 pp.; Trans. AIME, Ind. Min. Div., vol. 148, 1942, pp. 209-215; disc. pp. 220-221.
7679. —. The Transition From Open Pit to Underground Mining of Limestone. Rock Products, vol. 30, July 1936, pp. 60-62.
7680. —. Disc. of "Hydraulic Stripping of a Stone Quarry," by Mark Sheppard. Trans. AIME, Ind. Min. Div., vol. 129, 1938, p. 34.
7681. —. Disc. of "Large-Diameter Core Drill for Geologic Exploration," by R. C. Moneymaker and P. P. Fox. Trans. AIME, Min. Geol., vol. 144, 1941, pp. 351-353.
7682. —. Review of "Pit and Quarry Handbook and Directory." Min. and Met., vol. 16, October 1935, p. 428.
7683. THOENEN, J. R., AND GERMAIN, G. D. Jet-Piercing Blast Holes in Granite. Rock Products, vol. 59, No. 4, April 1953, pp. 132-135.
7684. THOENEN, J. R., AND LINTNER, E. J. Churn-Drill Performance. AIME, New York, March 1947.
7685. THOENEN, J. R., AND WINDES, S. L. Measurement of Ordinary House Vibrations. AIME Contrib. 108, 1937, 7 pp.; Trans. AIME, Geophys., vol. 138, 1940, p. 379.
7686. —. Seismic Phenomena as Revealed by Quarry Blasting. Trans. Am. Geophys. Union, part I, Nat. Res. Council, August 1938, pp. 109-115.
7687. THOENEN, J. R., MALAMPHY, M. C., AND DALE, GEORGE K. Application of the Ternary Diagram to Analysis and Classification of Ore Reserves. Econ. Geol., vol. 40, January-February 1945, p. 95.
7688. —. The Application of the Ternary Diagram to Arkansas Bauxite. AIME Tech. Pub. 1915, Min. Technol., vol. 8, November 1945, 13 pp.

7689. THOENEN, J. R., MALAMPHY, M. C., AND DALE, GEORGE K. The Application of the Ternary Diagram to Texas Bauxite. AIME Tech. Pub. 1915, 1945; Trans. AIME, Ind. Min. (Nonmetallics), vol. 173 1947, pp. 109-121.
- THOMAS, B. G. H. See items 5003, 6846, 6850.
7690. THOMAS, B. G. H., AND YANT, W. P. Toxic Effects of Ethylene Dibromide. Pub. Health Repts., Reprint No. 1130, 1927, 5 pp.
- THOMAS, E. M. See item 4145.
7691. THOMAS, EDWARD. Bolting for Safety. Min. Cong. Jour., vol. 43, No. 1, January 1957, pp. 65-66.
7692. ——. U.S. Bureau of Mines Investigations and Research on Bumps. Min. Eng., vol. 10, No. 8, August 1958, pp. 877-891; vol. 10, No. 9, September 1958, pp. 982-1004B.
7693. ——. The Coal Industry's No. 1 Hazard—Suggestions for Roof Supports for Use at Faces in Connection With Mechanical Mining. Proc. 38th Conv. Mine Inspectors Inst. America, Columbus, Ohio, June 7-9, 1948, pp. 72-80.
7694. ——. Conventional Timbering vs. Suspension Supports. Trans. 36th Nat. Safety Cong., 1948, vol. 8, pp. 24-26; Proc. Kentucky Min. Inst., 1948-50, pp. 67-73; Mechanization, vol. 13, 1949, pp. 147-152.
7695. ——. How You Can Get More From Roof Bolting. Coal Age, vol. 65, April 1950, pp. 71-75.
7696. ——. Latest Developments in Mine-Roof Bolting. Am. Min. Cong. Coal-Mine Modernization Yearbook, 1955, pp. 89-93.
7697. ——. Methods of Roof Control at Face Regions and on Haulage Roads; Cross Bars vs. Suspension Supports. Coal Age, vol. 53, No. 12, December 1948, p. 173.
7698. ——. Progress and Problems in Roof Support. Coal Age, August 1956, vol. 61, pp. 85-87.
7699. ——. Rock Bolting. Canadian Min. Met. Bull., vol. 48, No. 521, 1955, pp. 566-568; Trans. Canadian Inst. Min. and Met., vol. 58, pp. 310-312, 1955.
7700. ——. Rock Bolting Finds Wide Application. Min. Eng., vol. 6, 1954, pp. 1080-1085.
7701. ——. Rock Bolting Practices in Canadian Metal Mines. Canadian Min. Jour., vol. 74, No. 9, September 1958, pp. 58-72.
7702. ——. Rock Bolting. Canadian Min. and Met. Bull., vol. 53, No. 457, May 1950, pp. 268-276; Proc. 26th Ann. Conf., Lake Superior Mines Safety Council, 1950, pp. 42-49.
7703. ——. Roof Bolting in the United States. Min. Jour. (London), vol. 235, No. 6017, Dec. 16, 1950, pp. 580-587.
7704. ——. Roof Bolting in 1950. Coal Age, vol. 62, No. 4, April 1957, p. 88.
7705. ——. Roof Bolting to Prevent Accidents. Min. Cong. Jour., Coal Mine Modernization, 1950 Yearbook, p. 40.
7706. ——. Some Rock Bolting Costs. Min. Cong. Jour., vol. 42, No. 4, April 1956, pp. 75-77.
7707. ——. Suggestions for Roof Supports for Use at Faces in Conjunction With Mechanical Mining. Proc. 38th Ann. Conv., Mine Inspectors Inst. America, 1948, pp. 72-80.
7708. ——. Suspension Roof Support for Coal-Mine Roadways. Coal Age, vol. 53, No. 7, 1948, pp. 86-88.
7709. ——. Suspension Roof Support. Coal Age, vol. 53, No. 7, July 1948, pp. 86-88.
- . See items 478, 2963.
7710. THOMAS, EDWARD, BARRY, A. J., AND METCALF, A. Suspension Roof Supports, Part I. Min. Cong. Jour., vol. 38, No. 8, 9, August 1949, pp. 18-22.
7711. THOMAS, EDWARD, MAHOOD, G. P., DEMPSEY, J. B., ROBERTSON, A. K., AND SANFORD, J. H. Specifications for Roof Bolting Materials. Committee on Roof Action, Min. Cong. Jour., vol. 42, No. 7, July 1956, pp. 70-71.
7712. THOMAS, G. J. Fires and Explosions (Prep. by Guest, P. G.) Am. Soc. Anesthesiologists, News Letter, vol. 16, 1952, No. 3, pp. 10-21; No. 4, pp. 8-10; No. 5, pp. 12-14; No. 6, pp. 12-14; No. 8, pp. 12-13.
7713. ——. Minimum Charge Energies Required From Static-Spark Ignition of Combustible Anesthetic Gas Mixtures (Prep. by Guest, P. G.). Am. Soc. Anesthesiologists News Letter, vol. 16, August 1952, pp. 12-14.
- . See items 4120, 4121.
7714. THOMAS, GEORGE J., AND JONES, G. W. Clinical Experiences in the Prevention of Cyclopropane-Oxygen Explosions by the Addition of Helium. Anes. and Analges., vol. 20, 1941, pp. 121-131.
7715. ——. Clinical and Laboratory Data on Ether-Cyclopropane-Oxygen-Helium Mixtures. Anes. and Analges., vol. 21, 1942, pp. 121-136.
7716. ——. The Value of Helium in the Prevention of Explosions of Anesthetic Mixtures. New York State Med. Jour., vol. 42, No. 4, 1942, pp. 328-331.
- THOMAS, S. B. See item 5118.
- THOMPSON, A. J. See item 6840.
- THOMPSON, C. J. See items 1349-1351, 1880, 3240.
7717. THOMPSON, C. J., COLEMAN, H. C., AND HELM, R. V. Purification and Some Physical Properties of Nitromethane. Jour. Am. Chem. Soc., vol. 76, 1954, p. 3445.
7718. THOMPSON, C. J., COLEMAN, H. J., MIKKELSEN, LOUIS, YEE, DON, WARD, C. C., AND RALL, H. T. Identification of Thiolphene and 2-Methylthiolphene in Virgin Petroleum. Anal. Chem., vol. 28, September 1956, pp. 1344-1387.
7719. THOMPSON, C. J., COLEMAN, H. J., WARD, C. C., AND RALL, H. T. Identification of 3-Methylthiolphene in Wilmington, California, Crude Oil. Jour. Chem. Eng. Data, vol. 4, No. 4, October 1959, pp. 347-348.
7720. ——. Separation of Organic Sulfur Compounds by Liquid Thermal Diffusion. Anal. Chem., vol. 20, No. 11, November 1957, pp. 1601-1611.
7721. THOMPSON, C. J., MEYER, R. A., AND BALL, J. S. Thermal Decomposition of Sulfur Compounds. II. 1-Pentanethiol. Jour. Am. Chem. Soc., vol. 74, July 5, 1952, pp. 3287-3289.
7722. ——. Thermal Decomposition of Sulfur Compounds. I. 2-Methyl-2-Propanethiol. Jour. Am. Chem. Soc., vol. 74, July 5, 1952, pp. 3284-3287.
7723. THOMPSON, C. J., COLEMAN, H. J., RALL, H. T., AND SMITH, H. M. Separation of Sulfur Compounds From Petroleum. Anal. Chem., vol. 27, 1955, pp. 175-185.
- THOMPSON, G. P. See items 7421, 7422.
7724. THOMPSON, J. W. Placer Mining Laws as Applied to Olt. Min. Cong. Jour., vol. 3, 1917, pp. 329-331, 357-360; vol. 4, 1918, pp. 25-29.
7725. ——. The Relationship Between Laws and Mining. Min. Cong. Jour., vol. 8, 1922, pp. 901-904.
- THOMPSON, M. See item 7398.
7726. THOMPSON, M. R. Principles of Microelectrophoresis Cells. Trans. Electrochem. Soc., vol. 61, pp. 147-164, April 1942.
- . See item 2789.
7727. THOMPSON, ROBERT D. The Mineral Industry of Pennsylvania in 1955. Pennsylvania Geol. Survey Circ. 11, 1958, pp. 1-40.