

INDEX - MICROFILM REEL 192
(Original designation Navy 5852-1)

Item No.

1. Catalog (loose leaf sheets) of I. G. Farbenindustrie listing equipment for high-pressure apparatus (325 atm.) From 1938 to 1943 (about 125 pages).
2. Booklet by Ammoniakwerk Merseburg giving tables of physical constants of gas. 19 pages.
3. Catalog (loose leaf sheets) of I. G. Farbenindustrie listing equipment for high-pressure apparatus (700 atm.) From 1937 to 1943 (about 125 pages).
4. Schematic drawing showing the materials used and products obtained in gas producer plant. M5680-1, Ammoniakwerk Merseburg, not dated.
5. Flow sheet of a gas purification plant. Undated. No. M1412-M, Ammoniakwerk Merseburg.
6. Undated; unsigned memo on contemplated work program; vapor pressure curves; and a flow diagram of an ammonia refrigerating machine.
7. Schematic drawing No. Ra 65 of a napthalene purification process by Triebstoffwerk "Rheinpreussen" dated February 18, 1942.
8. Drawing No. 20056/2102 of a tar boiler (horizontal section) dated Oct. 26, 1940. Didier-Kogag-Henselmann, Essen.
9. Unlabeled drawing No. S3154 by Gewerkschaft Kerachemie-Berggartin Siershahn of a storage tank.
10. Drawing No. 19936/2077 by Didier-Kogag-Henselmann, Essen, of Oct. 25, 1940, showing the design of a sublimation plant for "Rheinpreussen."
12. Loss of pressure in water retainers of gas lines. A 2 page report with data and formulas for calculating pressure loss, by Sommer of Ammoniakwerke Merseburg G.m.b.H., Leuna Works, dated July 19, 1944. Attached are two reports by Sommer of July 13, 1940, and October 20, 1943, on "Water receivers for retaining droplets of water from gas lines," and "Calculations of the size of the openings of overflow pipes and the size of slots of bubble caps."
13. Thermolements resistant to pressure. A two-page description and two sketches by Mr. Weis of Ammoniakwerke Merseburg, dated June 14, 1937.

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14. Ignition of combustible gas or gas-air mixtures by friction sparks. Report by Dr. K. Gaulrepp, Feb. 22, 1944. A 6 page report of experiments made and apparatus used for carrying out the experiments on the igniting effects of friction sparks on various combustible gases. Schematic drawing of apparatus and graphs of data included.
15. Instructions for the determination of ozone in small concentrations. A 2 page description of the method analysis and 5 sketches of apparatus used. Gesellschaft fur Lindes Eismaschinen A. G., Dec. 14, 15, and 16, 1938.
16. Letter of transmittal from Herman Schilling to Kaiser-Wilhelm-Institut fur Kohlenforschung, Dec. 31, 1941, enclosing data on new apparatus for the complete analysis of gaseous hydrocarbons according to the Henjes process. Attached thereto is a reprint from Oel und Kohle, 14, 1079-1083 on this subject, and 8 advertisements on the Hanjes apparatus.
- 17-A Methanol synthesis at medium pressure, by Dr. Brendlein of Deutsche Gold und Silber Scheideanstalt, November 9, 1942. An 8 page report describing methanol synthesis at 30-40 atmospheres, including prior patent art, tables of data obtained in experiments, and flow diagram of the process.
- 17-B Data on the preliminary estimates of a plant and operating costs for a plant for Rohm und Haas, Philadelphia, for synthesis of methanol or methanol and higher alcohols. 14 pages. Feb. 18, 1938.
- 17-C Heat of reaction and thermodynamic equilibrium of methanol synthesis. A 6 page report by Linnenhof (?) of Ammoniakwerke, Merseburg, Leuna Works, dated Aug. 20, 1941. Graph O/1125 of Nov. 11, 1941.
- 17-D One typed sheet listing catalysts used in methanol synthesis Ludwigshafen, Oct. 21, 1942.
- 17-E Theory of formation of formaldehyde by contact oxidation of methane with ozone and oxygen.
- 17-F Sketch of reaction tube for hydrogenation of methyl formate to methanol. April 2, 1942 (2 copies).
- 17-G Scheme III manufacture of methyl formate from carbon monoxide and methanol. June 23, 1943.
- 17-H Drawing by Ammoniakwerke Merseburg No. M3922a-1 illustrating a plan layout for methanol synthesis at 40 atm. pressure, dated January 14, 1941.

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- 18. Typical operation report from Zeitz - Troglitz for March 15, 1944. About 30 pages covering operating conditions, flow diagrams, and production figures for March 15, 1944, as well as tables showing daily production figures of gasoline, Diesel oil, etc., for 1944.
- 19. Letter of transmittal by Horing (?) to Obering Lampe, dated Oct. 31, 1942, and a 3 page memo briefly describing 12 processes for manufacture of water gas, dated Oct. 18, 1942. A table is included showing the operating and plant costs of 7 processes.
- 20-A A 10 page memorandum by Dr. Fri., Ammoniakwerke Merseburg, Leuna Works, of Aug. 16, 1941, giving the gas requirements of "Moosbierbaum."
- 21. Discussion of monthly reports for June, July and August, 1940. A 21 page summary of operation at Böhlen dated January 9, 1941, for the above three months. Aviation gasoline was manufactured during this period. The average production of these three months are compared with production of automobile gasoline for a longer period, January to August 1939. Fuel produced by high-pressure hydrogenation and low-pressure hydrogenation.
- 22. Drawing M799-1 from Ammoniakwerke Merseburg, dated Nov. 13, 1935, illustrating a blast furnace.
- 23-A A 5 page report by Dr. Walkemann (?) Ludwigshafen, dated Feb. 14, 1944, on experiments made on coal briquettes, covering properties of coal used for briquetting, manufacture, uses, and carbonization of briquettes.
- 23-B A copy of a letter (signature illegible) dated August 20, 1941, to Dr. Gury, Verein für die bergbaulichen Interessen, Essen, giving average results of laboratory analysis for a 6-month period for the Böhlen Gas Works.
- 23-C Section of the lower part of Winkler Generator No. 1, Ammoniakwerk, Merseburg.
- 23-D Production reports for January 1942, February 1942, June 1943, July 1943, January 1944, and February 1944, showing monthly production and analysis of gas produced. Probably from Ammoniakwerk Merseburg.
- 23-E A table of analyses of various coals, giving ash composition, proximate and ultimate analyses. Undated. No company identification.
- 23-F A table entitled "Hydrogenation Yields" listing results obtained in hydrogenation of various coals. Undated. No identification as to company.

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- 23-G A 3 page letter from I. G. Farbenindustrie (signature illegible) dated April 11, 1940, to Oberschlesisches Steinkohlen, Syndikat G.m.b.H., on fuel requirements for new plants at Bunawerk Breslau, Heydebreck, Regensburg Dyhernfurth, and Burgkirchen near Altötting.
- 23-H Two copies of a table from I. G. Farbenindustrie, Ludwigshafen, dated June 12, 1940, listing estimated coke requirements for their Bunawerk (at Breslau), Haydebreck, and Politz plants.
- 23-I A one-page report from I. G. Farbenindustrie, Ludwigshafen, dated April 29, 1940, on the fuel requirements for the new Ostwerke plant. A table of April 22, 1940, is attached giving estimated requirements of fuel for the plants at Breslau, Heydebreck, Regensburg, Burgkirchen, and Dyhernfurth for 1941, 1942, and 1943.
- 23-J Two copies of a table from I. G. Farbenindustrie, Ludwigshafen, dated June 14, 1940, giving a survey on requirements of coal and coke for new plants at Breslau and Heydebreck, for 1941, 1942, and 1943.
- 23-K A 2 page report by Dr. Bahr of I. G. Farbenindustrie, Ludwigshafen, dated Jan. 24, 1943, giving the operation costs for producing low-temperature coke.
- 23-L A 1 page report by Dr. Ohler (?), Ammoniakwerke Merseburg, Leuna Works, of Oct. 9, 1941, giving the estimated cost of a new Winkler plant at Moosbierbaum.
- 23-M An 8 page report by Dr. Koch, I. G. Farbenindustrie, dated April 12, 1940, on a conference held April 10, 1940, for discussing fuel requirements for the plants at Waldenburg, Heydebreck, Breslau, Dyhernfurth, Burgkirchen, and Regensburg.
- 23-N A 10 page report by Dr. Keinke, Leuna Works, dated Nov. 9, 1933, entitled "Criticism of the H. G. hydrogenation process from an apparatus and heat technical standpoint."
- 23-O A copy of a letter of transmittal from Dr. Pier to Dr. Staden, Ammoniakwerke Merseburg, dated November 3, 1942, sending tables on:
- 1- Aromatic compounds from 1000 g. coal.
 - 2- Composition of coal for hydrogenation.
- The enclosures are not attached to the letter.
- 23-P An 11 page report by Dr. Eckhard, Ammoniakwerke Merseburg, Leuna Works, dated May 11, 1933, on manufacture of ammonia from nitrogen and hydrogen, and manufacture of methanol from hydrogen and carbon monoxide.

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- 23-Q A 4 page report by Dr. Wirth, Ammoniakwerke Merseburg, Leuna Works, dated June 2, 1935, entitled "Determination of the ratio of furnace coal to dry coal in drying of flue gas."
- 24 Supplement to the cost comparison of "To- and N-synthesis gas." A 12 page report dated March 27, 1940, Oppau, original reports were made on Feb. 17 and March 10, 1940.
- 25 Three proposed plans for increasing production of primary products at the Lutzkendorf plant. A 7 page report dated Jan. 12, 1940, Leuna works.
- 26 Notebook containing operating reports of the Böhlen Gas Works from 1941 to April 1944. Includes daily, monthly, and yearly reports on materials used and products obtained covering all items such as gases, tar, and by-products.
- 27 A report on the starting up and initial operation of the low-temperature carbonization generator No. 2 at Ammoniakwerk Merseburg, by Dr. Meinecke, dated Aug. 14, 1931, containing 32 pages covering description of the process, photographs, graphs, and appendix of 19 drawings of construction and operating data.
- 28 Results of experiments of low-temperature distillation in oven No. 4 to test practicability of process disclosed in patent application O.Z. 5975. A 16 page report by Dr. Hanisch, dated June 30, 1930. Ammoniakwerk Merseburg.
- 29 Experiments on distillation of briquettes made by adding various powders to the oil remaining from hydrogenation residue. Report by Dr. Hanisch comprises 7 pages, numerous tables and graphs illustrating results obtained. Pencil notation on first page gives date of March 25, 1929. Ammoniakwerk Merseburg.
- 30 Report on experiments made in the second half of the year 1931 in the Schneider low temperature carbonization plant. A 57 page report by Dr. Hanisch, dated Feb. 26, 1932. Ammoniakwerk Merseburg.
- 31 A 24 page report by Dr. Hanisch on the patent literature relating to low-temperature carbonization according to the Tanz process. Sept. 11, 1931. Ammoniakwerk Merseburg.
- 32 A 20 page report by Dr. Hanisch, Ammoniakwerk Merseburg, dated March 28, 1931, covering experiments made to determine:
- 1 - The amount of excess breeze that low-temperature generator No. 2 can produce by operating at 800° with Heydt coal having a moisture content of 4 - 8% and varying amounts of fine coal.
 - 2 - The maximum moisture content at various amounts of fine coal at which it is possible to operate without production of breeze.

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- 33 A 19 page report including 4 graphs by Dr. Hanisch, Ammoniakwerke Merseburg, dated April 14, 1930; on results obtained in experiments made to increase the tar yield in low-temperature carbonization by utilizing a flushing gas rich in water vapor (dewpoint 84°). tar yield of 95.5% was obtained.
- 34 A 15 page report (signature illegible) dated June 13, 1929, giving results of tests made on flowing gases through grained materials used as fillers and the significance of the conditions of the grates. Results illustrated graphically by numerous curves. There are enclosed in the report seven pencil curves on pressure drop, and 7 pages of literature references and patent disclosures.
- 35 A report by Dr. Hanisch dated Jan. 11, 1930, on the comparison of heat economy of various low-temperature distillation processes. Contains 18 pages and 4 graphs comparing Schneider, Traut, Lampe, Winkler, K.V.G., and Banag-Méguin processes.
- 36 A 67 page report by Dr. Hanisch, Ammoniakwerke Merseburg, Leuna Works, on results obtained on load tests in kiln No. 3 on Oct. 29-31, 1930, in order to obtain information for calculating the semi-water gas production in a low-temperature carbonization generator.