

INDEX - MICROFILM REEL 176  
(Original designation Navy 5868-1).

FRAME NOS.  
1-202

## PART 1.

1. Extract from "Treatises on coal/carbon/ Vol. 11" (1.)  
Investigations on the conversion of carbon monoxide and carbonic acid into methane with increased pressure. 4 pgs. 1931 Hydrogenation of carbon monoxide contained in coke gas into methane. Conversion of the carbon monoxide of a mixed gas (rich in carbon monoxide) into methane. Influence of various materials on the formation of methane.
2. Report on work on hydrocarbon synthesis Leuna Werke - Synthesis experiments with iron catalysts. 25 pgs. including some graphs and tables March 1940, Dr. Wintzer.
3. Basis of the Oppau pressure conversion 6 pgs. and 1 flow diagr. Oppau Co. 6 Jan. 1941.
4. Report on the hydrocarbon synthesis experiments in Leuna. Marked "Incomplete" in English on the cover, Feb. 1939. Covers laboratory work, some technical experiment theory, proposed projects and experimental even construction types. 126 pgs. including some graphs calculations and illustrations.
5. Drawing # M3797 22 Nov. 1940. Flow diagram - arrangement for KW Sy experimental installation Ma458. Ammoniakwerk.
6. Drawing # M3369-1 30 May, 1940. Flow diagram: K. W. Sy experimental installation about 750 talo.
7. Drawing # D-Sam 103 undated 2 copies. Flow diagram: Medium pressure synthesis of hydrocarbons. LURGI cycle process.
8. Drawing # D-Sam 103 undated 2 copies. Flow diagram: Medium pressure synthesis of hydrocarbons. LURGI Cycle process. (gases rich in CO and using conversion gas).
9. Scale drawing # 45105 Test contact oven (Rheinpreussen) 28 Nov. 1944. Proposition I.
10. Scale Drawing # 45099 10 Nov. 1944. Test contact oven Rheinpreussen.
11. Drawing # 200/57 26 June 1942. Contact oven installation.
12. Scale Drawing # 45179 29 June 1943. Arrangement of tubes in test contact oven.
13. Drawing # QDS/469 LURGI undated. Arrangement of iron catalyst experimental unit. Flow diagram.
14. Scale Drawing # M7445-2, 29 June, 1940. Ammoniakwerk. Experimental installation for 750 Talo Ma458. Flow diagram.

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15. Drawing # ODS666 15 May, 1944. LURGI. Arrangement of complete cycle - Flow diagram.
16. Scale drawing # OFT/147. 7 May 1941. LURGI contact oven 300 mm NW.
17. Scale drawing #4588 15 Sept. 1941 External view of all the tubes and base with 61 holes.
18. Drawing # N2725-1 Scale drawing of a catalyst chamber. 16 May, 1939.
19. Scale drawing # 26136 Boiler support 11 June, 1942.
20. Drawing D Sam 104. Undated. Flow diagram. Medium pressure synthesis of hydrocarbons. LURGI cycle diagram.
21. Drawing # 71-120 (Krupp #07z530/lc) Fuel plant changer with tubes 24 May, 1945.
22. Scale drawing # C670d. I.G. Farben. Pressure converter. 28 Dec. 1943.
23. Scale drawing # C679 28 Nov. 1941. Pressure converter. I. G. Farben. Evaporator.
24. Scale drawing # C671 24 Oct. 1941. Arrangement of auxiliary rings in evaporator. I.G. Farben.
25. Scale drawing # 684x I.G. Farben. 8 Dec. 1941. Experimental evaporator NW 250. Oxygen contact.

Part 2.

203-275

1. "Production of acetophenone, synthetic resin AP, crotonic acid, crotonic acid butyl ester, and softening agent III, Hüls Chemical works; three pages with translation, and three drawings. 22 May, 1945.
2. "Flow diagram for manufacture of acetophenone synthetic resin," Hüls Chemical works, three charts, 22 April, 1945.
3. "Hydrogen apparatus," Hüls Chemical works, products of the decomposition of raw gas" by an electric arc, 25 May, 1945.
4. "Ethylene apparatus," Hüls chemical works, an apparatus for producing pure ethylene from raw ethylene and hydrated ethylene, 25 May, 1945.
5. "Coke gas apparatus," Hüls chemical works, percentage decomposition of coke gas by an electric arc method, 25 May, 1945.
6. "Acetylene production, soot manufacture, and low pressure gas purification," Hüls chemical works, 4 pages. 25 May, 1945.
7. "Hüls Chemical Works," production chart showing raw materials, intermediate products and final products (buna and by-products).
8. "The production of coke-electrodes for the aluminum industry," Leuna Werke, 2 pages, 21, 12, 1943A.
9. "Soot production," Leuna Werke, 5 pages with chart, 19 May, 1939. (2 copies).

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10. "Cost estimate of a soot-production plant." Leuna-Werke, 1 June, 1939.
11. "Over-all chart of hydrogen boxes 1-5, Hüls Chemical Works, Chart # 460-4a.
12. "Chart of the Hüls ethylene plant," Hüls Chemical Works, Chart #4b, 4 Aug. 1943.
13. "Working plan of a nitrogen apparatus," I. G. Farben Industries, Chart # 73, 47.5 - 74c, Linde air fractionization.
14. "Flow sheet of gas decomposition," Hüls Chemical Works, Chart #4, 21 April, 1945.
15. "Ethyl benzol production," Hüls Chemical Works, two pages with chart # 12, 22 May, 1945.
16. "Styrol production," Hüls Chemical Works, Chart #13, 21 April, 1945.
17. "Description of acetylene hydrogenation HÜ 662," Hüls Chemical Works, 2 pages with chart #6, 22 May, 1945.
18. "Tatarinow acetylene production," Leuna-Werke, 2 pages, 15 Feb. 1944.
19. Two graphs and miscellaneous reactions dealing with acetylene production, Leuna-Werke.

NOTE: Frames 274 through 703 omitted from reel.

Part 3.

704-814

1. "Central heating and Ruhr foundry coke," Rheinisch-Westfälisches Kohlen-Syndikat, pamphlet of 48 pages.
2. "The Ruhr coal in the Bakery," Rheinisch-Westfälisches Kohlen-Syndikat, pamphlet of 24 pages.
3. "Ruhr coal in gas production," Rheinisch-Westfälisches Kohlen-Syndikat, pamphlet of 46 pages with charts.

Part 4.

815-860

1. "Entrance duct on the lower cover of a tar oven," Braunkohle-Benzin A. G., no. FA 322-2, Aug. 18, 1944, scale drawing.
2. "Regenerator," Mannesmannrohren Works, no. RW1769.1b Nov. 23, 1935, scale drawing for Braunkohle-Benzin, A.G.
3. "Tube bundle for 600 Regenerator," I. G. Farben Industries, No. N4564-2, June 7, 1937, scale drawing.
4. "Gas phase converter, 1000 Ø 15 m. assembly," Mineralöl-Baugesellschaft, No. 2338-1, Dec. 8, 1937, scale drawing.
5. "Gas pre-heater Ka.5," Technisches Büro, No. 1781, Dec. 18, 1940, thermo-diagram.

6. "1000  $\emptyset$  gas phase converter," Gaswerkschaft Mathias Stinnes, No. 2228-1, Sept. 7, 1937, scale drawing.
7. "1200  $\emptyset$  12 m. forging," I. G. Farben Industries, No. N538-1, scale drawing.
8. "Angle valve," Braunkohle-Benzin A. G., No. A1929-2, Feb. 24, 1944, scale drawing.
9. "10  $\emptyset$  stem for angle valve," Braunkohle-Benzin A. G., No. FA-1547-4, Jan. 30, 1945, scale drawing.
10. "Angle valve 58  $\emptyset$ , water cooled," Braunkohle-Benzin, A.G., No. FA1522-4, Jan. 24, 1945, scale drawing.
11. "10  $\emptyset$  angle valve, water cooled," Braunkohle-Benzin A.G., No. FA 1523-4, Feb. 7, 1945, scale drawing.
12. "10  $\emptyset$  check valve," Braunkohle-Benzin A. G., No. FA-1530-4, Jan. 24, 1945, scale drawing.
13. "Complete set of drawings on H.P. valve," I. G. Farben Industries, No. NB 2827-2, Jan. 21, 1945.
14. "Slime-free valve," Braunkohle-Benzin A.G., No. A1496-2, Mar. 31, 1943, scale drawing.
15. "Experiment valve for H-K- slime freeness," Braunkohle-Benzin A. G., No. A1494-2, Mar. 27, 1943, scale drawing.
16. "Expansion valve," Braunkohle-Benzin A.G., No. 181-2, May 7, 1935, scale drawing.
17. "Diagram of the distribution of the reduction machine 500-2250," Braunkohle-Benzin A.G., No. A383-8, April 16, 1935, for Böhlen works.
18. "Diagram of the reduction machine, Braunkohle-Benzin A.G., No. A343-8, Nov. 5, 1936, for Böhlen works.
19. "Pressure regulator, pistons 205  $\emptyset$ ," Leunawerke, No. 953(7), Aug. 29, 1938.
20. "Central reducer, tar and gasoline, for 300 atu working pressure," Braunkohle-Benzin A.G., No. IZM126-2, Sept. 26, 1940, scale drawing.
21. "Gas cooler of two-chamber gas phase converter," Mineralöl-Baugesellschaft, No. 2273-1, Sept. 25, 1937, scale drawing.
22. "Lower thrust expander," Braunkohle-Benzin A.G., No. A822-1, Sept. 20, 1943, scale drawing.
23. "Upper part hot separator," Braunkohle-Benzin, No. A832-1, Nov. 17, 1943, scale drawing.
24. "Shell for 600  $\emptyset$  regenerator," I.G. Farben Industries, No. N4022<sup>I</sup>-2, Nov. 20, 1937, scale drawing.
25. "Bottom closure 600  $\emptyset$  regenerator," I. G. Farben Industries, No. N4563-2, June 22, 1937, scale drawing.
26. "Grids for catalyst," Braunkohle-Benzin A.G., No. A950<sup>a</sup>-4, Nov. 16, 1944, scale drawing.
27. "Slurry phase inlet," Braunkohle-Benzin A.G., No. A975-4, Dec. 13, 1940, scale drawing.

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28. "Lower oven cover," Braunkohle-Benzin A.G., No. A955-4; Sept. 25, 1940, scale drawing.
29. Drawing # N4265<sup>8</sup>-2 I. G. Farben. Scale drawing - Bottom head 600  $\phi$  regenerator. 21 April, 1938.
30. Drawing # HW 1769.3a Braunkohle-Benzin scale drawing "upper oven cover" 14 Nov. 1938.
31. Drawing # R.W. 1769.4b Braunkohle-Benzin. Scale drawing - "lower cover" 21 Nov. 1938.
32. Drawing # 76-4 Braunkohle-Benzin. Scale drawing - 600  $\phi$  funnel neck. 29 Mar. 1935.
33. Drawing # 150-2 Braunkohle-Benzin. Scale drawing lower funnel neck 600  $\phi$ . 29 Mar. 1935.
34. Drawing # 206-2 Braunkohle-Benzin. Scale drawing - lube bundle 600  $\phi$ .
35. Drawing # 72-4 Braunkohle-Benzin. Scale drawing lower tube sheet. 1 Mar. 1935.
36. Drawing # 75-4 Braunkohle-Benzin. Scale drawing - lower head and inlet and outlet tubes.
37. Drawing # 1138-4 Braunkohle-Benzin scale drawing tube support. July 27, 1937.
38. Drawing # A36-16. Tube for tube bundles. Braunkohle-Benzin, scale drawing. 6 May, 1935.
39. Drawing # A27-1, Braunkohle-Benzin. Regenerator assembly 600  $\phi$ , scale drawing. 24 May, 1935
- 40,41, ...
42. Unlabeled drawings.

Part 5.

861-1225

Notebook containing "Experience Exchange" conference reports of the Ruhrchemie AK from the file of Dr. Braune on Fischer-Tropsch synthesis.

1. Session 14 - 2/7/38 Mostly on gas purification. 11 pgs.
2. Session 13 - 1/7/38 Activity of catalyst. 10 pgs.
3. Report by Dr. Weingawrtner on gas purification and life of catalyst. Jan. 4, 1938. 9 pgs. (2 copies). (1 copy)
4. Report by Dr. Steinbrecher on "The influence of synthesis gas and its purity on the life of the catalyst (according to a laboratory investigation)" 1/5/38; 6 pgs. (1 copy)
5. Report by Dr. Weingaertner "Gas production in the synthesis process." 1/27/38; 9 pgs.
6. Session 12 12/6/37 9 pages Topics: 1- Gas purification, 2- Catalyst quality, 3- Chamber discharge, 4- Catalyst distribution.
7. Session 11 - 11/5/37 9 pgs. - Topics as in Session 12.
8. Session 10 - 10/1/37 6 pgs. - Topics as above.

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Reel 176 - Part 5, Cont'd.

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9. Session 9 - 8/27/37 7 pages. Usual topics.
10. Session 8 - 7/30/37 10 pages. Usual topics plus an exact analysis of 4 F-T gasolines.
11. Session 7 - 7/2/37 9 pages. Usual topics.
12. Session 6 - 5/21/37 12 pages. Usual topics plus comparative monthly data sheets.
13. Session 5 - 4/23/37 13 pages. Usual topics. A graph of "Influence of oxygen content on gas purification."
14. Session 4 - 3/22/37 8 pages. Usual topics. Includes graphs.
15. Session 3 - 2/5/37 9 pages. Usual topics.
16. Session 2 - 1/5/37 13 pages. Usual topics.
17. Session 1 - 11/27/36 7 pages, and a second report of 19 pages. (3 duplicates) on the usual topics.