

INDEX - T.O.M. REEL 289
(Original Designation FIAT Reel K-22)
PB L70213

Frames

- 1170-1181 Suggestion for a new catalyst chamber with improved heat control. Report signed by Schnur, dated Feb. 25, 1941, Ruhrchemie A.G., Oberhausen-Holten. (Six diags. attached. Note signed by von Asboth and dated Mar. 18, 1941 precedes report.)
- 1182-1189 Report on the calculation of the heat in a finned tube catalyst chamber, suggestion II. (Supplement to report of Sept. 21, 1940.) Report signed by Schnur, dated Oct. 12, 1940, Ruhrchemie A.G., Oberhausen-Holten. (Six pages of curves and diags. attached.)
- 1190-1195 Calculation of heat condition in an improved pressure vessel. (Supplemented report of Aug. 3, 1940.) Report signed by Schnur, dated Sept. 21, 1940, Ruhrchemie A.G., Oberhausen-Holten. (Two pages of curves and diags. attached.)
- 1196-1205 Calculation of heat conditions of catalyst chambers. Report signed by Schnur, dated Aug. 3, 1940, Ruhrchemie A.G., Oberhausen-Holten. (Five pages of curves and diags. attached.)
- 1206-1207 Treatment of waste gases of nitric acid condensation equipment, processing ammonia oxidation gases, characterized by admixture of ammonia, followed by treatment in a high voltage filter. Correspondence concerning German Patent Appl. R 115,001 IVb/12e5 (R 650) and claims signed by Förster, dated March 16, 1944, Ruhrchemie A.G., Oberhausen-Holten.

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- 1208-1209a Aromatization or dehydrogenation of hydrocarbons with the use of catalysts comprising approx. 80% alumina and 20% chromium oxide and containing 2-5 atoms of potassium and/or sodium per 100 molecules of said oxide mixture. Correspondence concerning German Patent Appl. R 116,956 IVd/23b (R 687) and claims signed by Förster, dated April 20, 1944, Ruhrchemie A.G., Oberhausen-Holtten.
- 1210-1213 Production of ammonium nitrate by neutralizing ammonia or gases containing same with nitric acid. Correspondence concerning German Patent Appl. R 166,696 IVb/12k (R 674) and claims signed by Förster, dated March 16, 1944, Ruhrchemie A.G., Oberhausen-Holtten.
- 1214-1215 Production of carboxylic-alkali compounds by caustic treatment of carbon monoxide hydrogenation products. Report on German Patent Appl. R 115,143 IVd/12 o, R 658, signed by Hagemann and Förster, dated March 20, 1944, Ruhrchemie A.G., Oberhausen-Holtten.
- 1216-1218 Method for obtaining organic acids by oxidation of coal. Report and copy of German Patent Appl. R 117,134 4d 12 o (R 692), dated Apr. 5, 1944, Ruhrchemie A.G., Oberhausen-Holtten.
- 1219-1221a Production of metal compounds of fatty acids. (Conversion of aldehydes to fatty acids.) German Patent Appl. R 111,181 IVd/12 o, R 596, signed by Hagemann, dated April 6, 1944, Ruhrchemie A.G., Oberhausen-Holtten.
- 1222-1225 Process for the production of solid and liquid hydrocarbons by the catalytic reaction of gas mixtures containing carbon monoxide and hydrogen. German Patent Appl. R 100,570 IVd/12 o, R 366, signed by Hagemann and Förster, dated April 11, 1944.
- 1226-1231c Construction of an OXO synthesis plant. Conference report signed by Dr. Landgraf, dated Jan. 26, 1943. (Eight pages of diags. attached.)
- 1232-1236 Operation of an OXO synthesis plant. Report dated Feb. 5, 1942, Ammoniakwerk Merseburg G.m.b.H., Leuna Werke. (One time-temperature graph attached.)
- 1237-1238 OXO plant in Holtten with regard to heat of reaction. Conference report signed by Roelen, dated Sept. 1, 1941, Ruhrchemie A.G., Oberhausen-Holtten.
- 1239-1241 "Schaffgotsch" fuel. Conference report signed by Heckel and Heger, dated March 22, 1943, Ruhrchemie A.G. (One diagr. attached.)
- 1242-1249 The wet synthesis. Report signed by Schenk, dated Jan. 20, 1942, Ruhrchemie A.G., Oberhausen-Holtten. (Report is also reproduced on T.O.M. Reel 288, Frames 1108-1115.)

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- 1249a-1249b Distribution of liquids in wet synthesis. Report signed by Roelen, dated Dec. 9, 1939, Ruhrbenzin A.G., Oberhausen-Holten.
- 1249c-1249f Wet synthesis. Work order signed by Roelen, dated June 28, 1939, Ruhrbenzin A.G., Oberhausen-Holten.
- 1250-1252 Dehydration of higher alcohols. Rough draft of patent application in which Roelen and Fritzsche present claims, dated Feb. 10, 1941, Ruhrchemie A.G., Oberhausen-Holten.
- 1253-1254 Use of oxygen-containing compounds as fuel. Conference report signed by Velde, dated Feb. 9, 1937, Ruhrchemie A.G.
- 1255-1256 Production of drying oils. Report signed by Roelen, dated Jan. 25, 1943, Ruhrchemie A.G., Oberhausen-Holten.
- 1257 The OXO synthesis with oleic ethyl ester. Report dated Oct. 8, 1942, Ruhrchemie A.G., Oberhausen-Holten.
- 1258 The OXO synthesis with dehydrogenated Diesel oil. Report signed by Roelen, dated Sept. 28, 1942, Ruhrchemie A.G., Oberhausen-Holten.
- 1259-1260 Aldols obtained from products made in the OXO synthesis of olefins. Report signed by Roelen, dated July 24, 1942, Ruhrchemie A.G., Oberhausen-Holten.
- 1261-1263 Synthesis of propionic aldehyde by OXO process. Conference report signed by Heckel, dated March 7, 1942.
- 1264-1266 Methods of the OXO synthesis. Report signed by Roelen, dated Jan. 22, 1942, Ruhrchemie A.G., Oberhausen-Holten. (One page of diags. attached.)
- 1267-1270 Work program: OXO synthesis, especially for production of propionic aldehyde. Laboratory order signed by Roelen, dated Nov. 26, 1941, Ruhrchemie A.G., Oberhausen-Holten.
- 1271-1276 Preparation of OXO products from gasol and synthetic gasoline. Conference report signed by Martin, dated Nov. 25, 1941, Ruhrchemie A.G. (Four pages of diags. attached.)
- 1277-1278 Investigation of the OXO synthesis. Report from patent application file, signed by Roelen, dated April 5, 1941, Ruhrchemie A.G., Oberhausen-Holten.
- 1279-1284 New project in the Ruhrbenzin plant. Conference report signed by Schuff, dated Jan. 14, 1941.

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- 1285-1286 OXO synthesis with acetylene. Report signed by Roelen, dated Jan. 13, 1941, Ruhrchemie A.G., Oberhausen-Holten. (One diagr. attached.)
- 1287-1289 Production of sulfonates from OXO alcohols. Report signed by Roelen, dated Oct. 12, 1940, Ruhrchemie A.G., Oberhausen-Holten.
- 1290-1292 Emulsifying agent for hard paraffin. Report signed by Roelen, dated Sept. 6, 1940, Ruhrchemie A.G., Oberhausen-Holten.
- 1293-1294 Outline of a patent application for the production of OXO compounds. Signed by Roelen, dated Aug. 1940, Ruhrchemie A.G., Oberhausen-Holten.
- 1295-1298 Synthesis oven in which a salt melt instead of oil cooling is used for heat control. Report signed by Roelen, dated July 16, 1942. (One page of diags. attached.)
- 1299-1302 Production of synthesis gas for a small Fischer plant. Unsigned letter and suggestion for gas production signed by Gumz included, dated Aug. 1944, Verein für die bergbaulichen Interessen, Essen. (German Patent Appl. G 109,254 V/24e referred to.)
- 1303-1305 Difficulties in plant operation. Plant meeting of Ruhrbenzin. Report signed by Velde, dated Oct. 26, 1937, Ruhrbenzin A.G., Oberhausen-Holten. (Report is incomplete.)
- 1306-1315 Fischer fuel production method (two steps) - the most important data. Confidential report, dated April 22, 1936, Ruhrchemie A.G., Oberhausen-Holten. (One flow diagr. attached.)
- 1316-1320 Production of catalysts and regeneration of used catalysts in fuel synthesis. Report signed by von Asboth, dated Oct. 20, 1938, Ruhrchemie A.G., Oberhausen-Holten. (Diagr. referred to is missing.)
- 1321 Review on catalyst apparatus. Report signed by von Asboth, dated Oct. 20, 1938. (Schemes and diags. referred to are missing.)
- 1322-1323 Production of high-degree purifying material for removal of sulfur from the synthesis gas of the gasoline plant. Report dated Oct. 21, 1938, Ruhrchemie A.G., Oberhausen-Holten. (Diagr. referred to is missing.)
- 1324-1327 Examination of catalysts. Confidential report signed by Roelen, dated Nov. 19, 1936, Ruhrbenzin A.G., Oberhausen-Holten.
- 1328-1340 Purification of cobalt solutions. Confidential conference report signed by Roelen, dated Nov. 6, 1936, Ruhrchemie A.G., Oberhausen-Holten. (Three diags. attached.)

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- 1341-1349 Report on the investigation of the water of reaction formed in the hydrocarbon synthesis over iron catalysts. Report dated July 22, 1941, Ruhrchemie A.G., Oberhausen-Holten. (Five tables attached.)
- 1350-1351 Preparation of maximum viscosity oils. Report signed by Clar, dated June 23, 1943, Ruhrchemie A.G., Oberhausen-Holten.
- 1352-1355 Formation of lubricants from residual olefins of the fuel synthesis. Report signed by Clar, dated Oct. 31, 1942, Ruhrchemie A.G., Oberhausen-Holten.
- 1356-1362 Relation between olefin content and yield of lubricant obtained by processing recycled gasoline. Report signed by Clar, dated Jan. 27, 1943.
- 1363-1365 Report on the experiments for the preparation of soft paraffin for soap manufacture from hard paraffin. Report signed by Dahm, dated April 11, 1939, Ruhrchemie A.G., Oberhausen-Holten. (One page of curves attached.)
- 1366-1370 Dehydrogenation of low-molecular hydrocarbons in presence of halogen to form olefins. Experiments with heptane. Report signed by Rottig, dated Feb. 25, 1944, Ruhrchemie A.G., Oberhausen-Holten. (Reproduced also on T.O.M. Reel 295, Frames 6409-6413.)
- 1371-1375 Dehydrogenation of high-molecular hydrocarbons (cetane) with halogens, in particular, bromine, to form olefins. Report signed by Rottig, dated Feb. 24, 1944, Ruhrchemie A.G., Oberhausen-Holten. (Reproduced also on T.O.M. Reel 295, Frames 6414-6418.)
- 1376-1402 Hydrogenation of carbon monoxide in the gaseous phase and under normal pressure in the presence of acetylene. Four reports dated Aug. 1, 1941, Oct. 7, 1941, Mar. 12, 1942, and April 27, 1942, Ruhrchemie A.G., Oberhausen-Holten.
- 1403-1409 Carbon monoxide hydrogenation at normal and increased pressure in the gaseous and liquid phase with addition of C_2H_2 . Report dated Mar. 20, 1941, Ruhrchemie A.G., Oberhausen-Holten.
- 1410-1416 Isosynthesis. Conference report signed by Velde, dated Aug. 13, 1945, Ruhrchemie A.G.
- 1417-1422 Synthesis of hydrocarbons by hydrogenation of carbon monoxide at elevated temperatures and pressures. Rough draft of a patent application dated May 19, 1942.
- 1417A-1418A Temperature control device. Draft of a patent application, dated May 6, 1942, Ruhrchemie A.G., Oberhausen-Holten. (Draft is incomplete.)

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- 1423-1458 Cracking waste gases of the Fischer fuel synthesis. Report by Velde, dated June 4, 1936, Ruhrchemie A.G., Oberhausen-Holten. (3 graphs, 1 diagr. and 15 pp. including tables 1-7 attached.)
- 1459-1477 Recovery and properties of gasol from waste gases of the fuel synthesis. Report signed by Grimmie, dated Jan. 3, 1935, Ruhrchemie A.G., Oberhausen-Holten. (Graphs and tables incl.)
- 1478-1510 Determination of hydrocarbons with 1-5 C atoms and isomers of butane and butylene by precise fractional distillation. Report signed by Schmitz, dated Mar. 14, 1940. (11 curves, 4 diagrs. and 3 tables attached.)
- 1511-1527 Batch distillation in large toluene plant. Report signed by Kelting, dated Sept. 21, 1943, Ruhrchemie A.G., Oberhausen-Holten. (Two diagrs. incl.)
- 1528 This frame is missing.
- 1529-1538 Experiments for gas polymerization with the "G.P." apparatus. Report signed by Voigt, dated Nov. 22, 1943, Ruhrchemie A.G., Oberhausen-Holten. (One diagr. and one graph attached.)
- 1539-1543 Preparation of various polymerization catalysts. Report signed by Spiske, dated June 10, 1943, Ruhrchemie A.G., Oberhausen-Holten. (German Patent Appl. V 12,617 IVd/12 o referred to.) (Reproduced also on T.O.M. Reel 296, Frames 7221-7225.)
- 1544 This frame is missing.
- 1545-1552 Experiments with a nickel hydrogenation catalyst. Report signed by Tramm, dated Dec. 27, 1941, Ruhrchemie A.G., Oberhausen-Holten. (Three pages of curves attached.)
- 1553-1560 Pilot plant polymerization. Report signed by Spiske, dated July 7, 1941, Ruhrchemie A.G., Oberhausen-Holten. (One table attached.)
- 1561-1564 Production of high octane gasoline. Report signed by Spiske, dated Feb. 1, 1940, Ruhrchemie A.G., Oberhausen-Holten. (Two graphs and table attached.) (Reproduced also on T.O.M. Reel 291, Frames 2972-2976.)
- 1565-1567 Preparation of a phosphoric acid polymerization catalyst. Report signed by Tramm, dated Sept. 19, 1939, Ruhrchemie A.G., Oberhausen-Holten. (Reproduced also on T.O.M. Reel 290, Frames 2021-2023 and T.O.M. Reel 296, Frames 6949-6951.)

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- 1568-1570 Report on the refining of polymer gasoline with granosil, its motor behavior, and potential gumming property of its mixture with active charcoal and "T.V.P." cracked gasoline. Report signed by Dahm, dated March 29, 1939, Ruhrchemie A.G., Oberhausen-Holten. (Reproduced also on T.O.M. Reel 290, Frames 2137-2139.)
- 1571-1575 Polymerization of olefins in presence of phosphoric acid. Report signed by Kuhn, dated Feb. 19, 1938, Ruhrchemie A.G., Oberhausen-Holten. (Report and other correspondence attached, dated in Jan. 1937 and Mar. 1937, refer to a number of patents concerning the above-mentioned title.)
- 1576-1582 Hydrogenation of aromatized primary gasoline in order to extract the aromatic compounds. Report signed by Kalippke, dated May 2, 1941, Ruhrchemie A.G., Oberhausen-Holten. (One diagr. and one graph attached.)
- 1583-1585 Recovery of pure toluene from A.K. (active charcoal) gasoline. Report signed by Petri, dated July 14, 1939, Ruhrchemie A.G., Oberhausen-Holten. (Reproduced also on T.O.M. Reel 290, Frames 2077-2079.)
- 1586-1618 Aromatizing experiments in the LT-pilot plant. Report dated Feb. 3, 1941, Ruhrchemie A.G., Oberhausen-Holten. (Three pages of diags. and three pages of curves attached.)
- 1619-1627 Laboratory experiments concerning the detrimental influence of steam on aromatizing catalysts. Report signed by Kolling, dated Nov. 18, 1940, Ruhrchemie A.G., Oberhausen-Holten. (Two pages of curves attached.) (Reproduced also on T.O.M. Reel 290, Frames 2161-2169 and T.O.M. Reel 296, Frames 7346-7354.)
- 1628-16 Aromatization of aliphatic hydrocarbons. Confidential report signed by Kolling, dated Sept. 15, 1939, Ruhrchemie A.G., Oberhausen-Holten. (Complete report which includes tables, drwgs. and graphs is reproduced on T.O.M. Reel 295, Frames 6297-6369.)
- 1666-1736 Report on the most recent experiment results obtained in the LT-pilot plant. Confidential report signed by Kolling, dated April 30, 1940, Ruhrchemie A.G., Oberhausen-Holten. (11 tables, 29 graphs and 14 diags. attached.) (Reproduced also on T.O.M. Reel 291, Frames 2568-2603, with partial duplicate on Frames 2532-2567.)
- 1737 Octane numbers of the aromatized fraction 100°-200° C. from normal pressure gasoline. Report signed by Kolling, dated March 24, 1939, Ruhrchemie A.G., Oberhausen-Holten. (Some figures missing.)

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- 1738 Calculation of the content of aromatic compounds in aromatized gasoline based on the increase in density. Incomplete report, no date, Ruhrchemie A.G., Oberhausen-Holten.
- 1739 Catalysts for the OXO synthesis. Incomplete report (15 tables are missing), no date, Ruhrchemie A.G., Oberhausen-Holten.
- 1740-1754 Survey on the efficiency of OXO catalysts. Report signed by Kolling, dated Sept. 28, 1938, Ruhrchemie A.G., Oberhausen-Holten. (Tables 1 and 8 are missing.)
- 1755-1759 Report on the preparation of aromatizing catalysts on a laboratory scale. Report signed by Rottig, dated March 10, 1944, Ruhrchemie A.G., Oberhausen-Holten. (Reproduced also on T.O.M. Reel 296, Frames 7216-7219.)
- 1760-1771 New apparatus for automatically conveying small and minimum quantities of liquid at normal and slightly increased pressures. Report by Rottig, dated Aug. 25, 1943, Ruhrchemie A.G., Oberhausen-Holten. (One diagr. and 3 graphs attached. Text of report and diagr. are duplicated on Frames 1766-1770.)
- 1772-1773 Second report concerning aromatizing of imported gasoline. Report dated Nov. 20, 1942, Ruhrchemie A.G., Oberhausen-Holten.
- 1774-1779 Report concerning research on aromatization of hydrocarbons in empty tubes to find best materials for reaction tubes. Report signed by Rottig, dated July 11, 1939, Ruhrchemie A.G., Oberhausen-Holten. (Two tables attached.) (Reproduced on T.O.M. Reel 290, Frames 2080-2085.)
- 1780-1787 Activity of aromatization catalysts using alumina as carrier substance. (Investigation is made of calcination temperature of Al_2O_3 and influence of alkali content of Al_2O_3 on activity.) (Three tables in the form of graphs are attached.) Report signed by Rottig, dated July 11, 1939, Ruhrchemie A.G., Oberhausen-Holten. (Reproduced also on T.O.M. Reel 290, Frames 2069-2076 and T.O.M. Reel 296, Frames 6973-6980.)
- 1788-1793 Influence of the temperature of decomposition of the catalyst on the activity in the aromatization. (Catalyst composition: alumina and chromium oxide.) Report signed by Rottig, dated Oct. 25, 1940, Ruhrchemie A.G., Oberhausen-Holten. (Two tables in the form of graphs attached.) (Reproduced also on T.O.M. Reel 290, Frames 2296-2300A and T.O.M. Reel 295, Frames 6165-6170.)

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- 1794-1805 Plant for manufacture of aviation gasoline and toluene from petroleum gasoline and Fischer-Tropsch gasoline from plants in middle and eastern Germany. Report dated Jan. 29, 1943, Ruhrchemie A.G., Oberhausen-Holten. (Diagr. covering six pages is attached.)
- 1806-1812 Influence of metal additions to the $AlCl_3$ in the synthesis of lubricants. Report signed by Clar, dated Nov. 26, 1938, Ruhrchemie A.G., Oberhausen-Holten.
- 1813-1817 Gasoline for motors and aviation purposes. Report signed by Tramm, dated Oct. 31, 1938; Ruhrchemie A.G., Oberhausen-Holten.
- 1818-1857a Aromatization of aliphatic hydrocarbons. Report signed by Kolling, dated Oct. 1, 1938, Ruhrchemie A.G., Oberhausen-Holten. (Ten tables and six curves attached.)