

INDEX -- T.O.M. REEL 287
(Original Designation FIAT Reel K-20)
PB L70211

Documents taken from Ruhrchemie A.G., Oberhausen-Holtien

Frames

- 1-10 Miscibility and stability in storage of Diesel fuels. Report signed by Roelen. Oct. 11, 1938.
- 11-17 Course of the pressure synthesis when using an initial gas rich in carbon monoxide. No date. Lab. rept.
- 18-21 Microphotographs of kieselguhr catalysts. Note by Dr. Sauter. Braunkohle-Benzin A.G., Feb. 14, 1938.
- 22-23 Solubility and alkali resistance of kieselguhr. (Graph and table). (Complete report appears on T.O.M. Reel 296, Frames 7087-7090 and T.O.M. Reel 288, Frames 1041-1044.)
- 24-31 Thorium regeneration. Oct. 10, 1938. Note signed by Dr. Heckel.
- 32-37 Determination of the content of free metal in catalysts. (Acid-vacuum method). Working instruction signed by Roelen, dated Jan. 5, 1938, (one sketch attached) (Report is also reproduced on T.O.M. Reel 296, Frames 7118-7123).
- 38-39 Repeated use of the same catalysts. Report signed by Agnes. June 8, 1937. Ruhrbenzin, A.G.
- 40-43 Preparation of catalysts with a high cobalt density precipitated on purified kieselguhr: 100Co; 15ThO₂; 12.5Kgr. Report dated Aug. 7, 1939, Ruhrbenzin A.G., Oberhausen-Holtien. (Duplicated on Frames 349-353, and also reproduced on T.O.M. Reel 296, Frames 6968-6972.)
- 44-46 Results in the preparation of a thorium-magnesium thread grain catalyst, continuously reduced. (100Co : 10MgO : 5ThO₂ : 200Kgr.) Report signed by Schenk. Feb. 1, 1938. Ruhrbenzin, A.G.
- 47-49 Results in the preparation of a cobalt-magnesium catalyst. (100Co : 15MgO : 200Kgr.) Report signed by Schenk. Jan. 31, 1938. Ruhrbenzin, A.G.
- 50-52 Preparation of a cobalt thread grain from filter cake. (100Co : 15ThO₂ : 200Kgr.) Report signed by Schenk. Dec. 21, 1937.
- 53-57 Report on the preparation of thorium-free cobalt-magnesium catalysts by Ruhrchemie A.G. Report signed by Roelen, dated Aug. 13, 1937, Ruhrbenzin A.G. (One flow diag. attached.) (Duplicated on Frames 171-175B and also reproduced on T.O.M. Reel 296, Frames 7189-7193.)

T.O.M. Reel 287 Cont'd

Frames

- 58-63 Development in catalyst shaping. Report signed by Klein and Roelen. Nov. 7, 1935, Ruhrbenzin A.G. (Duplicated on Frames 69-73.)
- 64-65 Preparation of a new catalyst. Report signed by Roelen. Nov. 3, 1936. Ruhrbenzin, A.G.
- 66-67 Beginning of production in the catalyst plant of Ruhrbenzin A.G. Letter signed by Roelen and Klein. Jan. 6, 1936, Ruhrbenzin A.G.
- 68 Preparation of catalysts. Letter signed by Roelen. Feb. 26, 1936. Ruhrbenzin A.G.
- 69-73 Duplicate of Frames 58-63.
- 74-79 Recovery of thorium from the thorium catalyst sludge by the sulfate process. Report signed by Büchner, dated May 14, 1938, Ruhrbenzin A.G. (One flow diagr. and table attached.) (Also reproduced on T.O.M. Reel 296, Frames 7129-7133.)
- 80-88 Treatment of pre-precipitation sludge by Ruhrbenzin A.G. (Incomplete conference report containing 5 pp. of graphs and 2 pp. of tables.) Feb. 25, 1937, Ruhrbenzin A.G.
- 89-91 Cobalt catalysts containing nickel. Report signed by Roelen. (2 pp. of tables attached.) April 2, 1937, Ruhrbenzin A.G.
- 92 Rules and standards for kieselguhr 120 analysis for Aug. 1938. A draft for rules - signed by Roelen. Sept. 6, 1941, Ruhrbenzin A.G.. (Document is also reproduced on T.O.M. Reel 288, Frame 1040, and also with reports found on T.O.M. Reel 296, Frames 7082-7086.)
- 93-98 Investigation of kieselguhr. Analytical instruction signed by Roelen. Aug. 2, 1939, Ruhrbenzin A.G.
- 99-102 Behavior of inorganic impurities in kieselguhr in the promotion and working up of kieselguhr No. 120. Report signed by Büchner, Heckel and Roelen. Apr. 17, 1939, Ruhrbenzin A.G.
- 103-108 Testing of kieselguhr samples as to their influence on the activity of the catalysts. Report signed by Heckel, dated Nov. 24, 1937, Ruhrbenzin A.G. (Tables and curve sheets missing). (Complete report is reproduced on T.O.M. Reel 288, Frames 1064-1075.)
- 109-117 Operation of a thread press by the Ruhrbenzin A.G. Letter signed by Hagemann. (7 drwgs. attached). Dec. 23, 1938, Ruhrbenzin A.G.
- 118-120 Production of thread grain in catalyst manufacture. (Feb-Mar. 1938). Report signed by Schenk. March 22, 1938, Ruhrbenzin A.G.

T.O.M. Reel 287 Cont'd

Frames

- 121 Key data for precipitation gasoline. Letter dated July 12, 1939 from the Oberkommando des Heeres, Berlin.
- 122-123 Determination of the iodine number according to Rosenmund and Kuhnenn. (Extract from Holde, "Kohlenwasserstofföle und Fette," sixth edition, 1924, p. 582).
- 124-132 Decrease of the anti-knock properties of kogasin I in storage as a consequence of peroxide formation. The influence of inhibitor additives. Report by Dr. Koch, (U.S. Patents 1,889,835 and 1,889,836 and French Patent 746,562, referred to.) Feb. 12, 1937.
- 133-135 These frames are missing.
- 136-163 Possibility of obtaining high-quality gasolines from the primary product of the gasoline synthesis. Report signed by Babo. Oct. 1, 1936, Ruhrbenzin A.G. (Report gives extensive literature references.)
- 164-165 Crushing of thread grain in catalyst manufacture. Report signed by Roelen. May 20, 1938, Ruhrbenzin A.G.
- 166-167 Report on the drying tests with thread grain in the Büttner drier. Apr. 11, 1938.
- 168-170 Experiments on the regeneration of catalysts. Conference report signed by Heckel. Feb. 9, 1938, Ruhrbenzin A.G.
- 171-175B Duplicate of Frames 53-57.
- 176-186 Filtration of an alkaline suspension on a Kelly filter. Test report dated Oct. 11, 1935, Dorr Gesellschaft m.b.H., Berlin.
- 187-189 Tests for separating the mother liquor from freshly precipitated catalysts by means of a centrifuge. Report signed by Klein. Sep. 5, 1935, Firma Haubold, Chemnitz.
- 190-192 Visit to Firma Filterwerk in Meissen. Travel report by Roelen. Aug. 3, 1935, Ruhrbenzin A.G.,
- 193-197 Shaping materials with a high water content. Letter and patent specification with attached diags., dated July 6, 1939, Maschinenfabrik Imperial G.m.b.H., Meissen.
- 198-203 Patent application for a device for the disintegration of thread-like dried products. Draft of a patent specification by Roelen. Aug. 4, 1942. (One table and three drwgs. attached.)
- 204-206 Process for the preparation of valuable washing, wetting, dispersing, emulsifying and cleaning agents. Draft of a patent specification, R. 474, dated Dec. 23, 1939.

T.O.M. Reel 287 Cont'd

Frames

- 207-213 Process for the removal of alcohols and other oxygenated compounds from the primary products of the carbon monoxide hydrogenation by means of metallic salts. July 30, 1941. (Patent specification R 582.)
- 213A-214 Three internal letters signed by Roelen. June 12, 1941. Letters concern patent specifications R 489, R 558 and R 417.
- 215-218 Process for separating water from alcohols by means of zinc chloride or zinc halides with a similar effect. Draft of a patent specification, R 552, dated Feb. 12, 1941. (Duplicated on Frames 274-277.) Ruhrbenzin, A.G.
- 219-224 Process for the production of oxygenated compounds from olefinic primary products of the carbon monoxide hydrogenation. Draft of a patent specification, R 522, dated Aug. 8, 1940.
- 225-228 Process for the production of valuable OXO compounds. Draft of a patent specification, R 402, dated Sep. 16, 1938.
- 229-231 Process for the production of alcohols from unsaturated hydrocarbons. (Addition to German Patent Appl. R 103,362 IVd/12 o). Draft of a patent specification dated April 19, 1939.
- 232-240 Highly active iron catalysts for carrying out the carbon monoxide hydrogenation. Draft of a patent specification dated Dec. 8, 1939, (Duplicated on Frames 317-325.)
- 241-245 Process for the transformation of higher alcohols or alcohol mixtures into alkali salts of fatty acids by reaction with alkali halides. Mar. 10, 1941. (Patent specification R 558.)
- 246-249 Process for the production of high molecular alcohols. Draft of a patent specification, R 527, dated Aug. 19, 1940.
- 250-253 Process for the production of washing agents. Draft of a patent specification, R 530, dated Aug. 20, 1940.
- 254-257 Process for the condensation of high molecular aldehydes. Draft of a patent specification, R 526, dated Aug. 17, 1940.
- 258-263 Process for the production of sulfonation products from unsaturated hydrocarbons. Draft of a patent specification, R 519, dated July 12, 1940.
- 264-267 Process for obtaining pure oxygen-containing derivatives of aliphatic hydrocarbons, particularly fatty acids or alcohols. Draft of a patent specification, R-489, dated Jan. 24, 1940.

T.O.M. Reel 287 Cont'd

Frames

- 268-273 Process for using the alkalinity of the catalyst as a regulator for the CO:H₂ consumption ratio. Draft of a patent specification, L-537, dated Sept. 11, 1940, (Duplicate on Frames 286-294).
- 274-277 Duplicate of Frames 215-218.
- 278-285 Process for the production of highly active catalysts for the carbon monoxide hydrogenation from iron-containing wastes of the alumina production by alkaline decomposition. Jan. 16, 1941. (Patent specification R-548). (Similar to patent specification R 490 reproduced on Frames 305-308A).
- 286-294 Duplicate of Frames 268-273.
- 295-298 Process for the purification of aldehydes and ketones. Draft of a patent specification R 512, dated May 10, 1940.
- 299-304 Process for the production of smoke-producing materials. Draft of a patent specification R 504, dated April 24, 1940.
- 305-308A Iron-containing catalysts for the carbon monoxide hydrogenation. Feb. 2, 1940. (Patent specification R 490). (Similar to patent specification R 548 reproduced on Frames 278-285).
- 309-311 Process for the production of valuable OXO compounds. Draft of a patent specification R 487, dated Jan. 26, 1940. (Addition to German Patent Appl. R 103,362 IVd/12 o).
- 312-316 Process for removal of the heat of reaction in the carbon monoxide hydrogenation. Draft of a patent specification, R 479, dated Jan. 5, 1940.
- 317-325 Duplicate of Frames 232-240.
- 326-331 Process for the regeneration of catalysts for the carbon monoxide hydrogenation. Drafts of patent specifications R 418, dated Nov. 5, 1938, and R 416 (addition to German Patent Appl. R 97,394 IV c/12 o), also dated Nov. 5, 1938.
- 332-336 Process for the production of anti-knock fuel from products of the carbon monoxide hydrogenation. Draft of a patent specification numbered R 421 and R 351.
- 337-339 Influence of the condition of kieselguhr on the stability of the catalyst. Conference report signed by Roelen and Heckel, dated Sept. 12, 1939, Ruhrbenzin A.G.

Frames

- 340-348 Development of catalysts for the Fischer-Tropsch Synthesis. Report signed by Roelen, dated Aug. 18, 1939, Ruhrbenzin A.G. (Reproduced also on T.O.M. Reel 296, Frames 6959-6967.)
- 349-353 Duplicate of Frames 40-43.
- 354-356 Dependence of the quality of the catalyst on the condition of its components. Conference report signed by Roelen and Heckel, dated March 28, 1939, Ruhrbenzin A.G.
- 357-358 Experiments with a Lurgi iron catalyst. Report, no date, Ruhrbenzin A.G.
- 359-362 Production of cobalt catalysts by precipitation with carbon dioxide-ammonia gas mixtures. Report from the Kaiser Wilhelm Institut für Kohlenforschung of work begun Oct. 1937 and ended April 1938.
- 363-367 Discussion on catalyst problems. Conference report signed by Heckel, dated Jan. 26, 1939, Ruhrbenzin A.G.
- 368-376 Japanese kieselguhrs as carrier substances for catalysts. Report signed by Heckel, dated Sept. 7, 1938, Ruhrbenzin A.G. (Three tables and three pages of graphs attached). (Reproduced also on T.O.M. Reel 296, Frames 7048-7056.)
- 377-384 Influence of the kieselguhr type and of the reduction on the activity of catalysts. Report signed by Heckel, dated Sept. 8, 1938, Ruhrbenzin A.G. (Five graphs attached). (Reproduced also on T.O.M. Reel 296, Frames 7040-7047.)
- 385-395 Influence of the cobalt and thorium content on the stability and life of catalysts. Report signed by Roelen, dated Aug. 24, 1937, Ruhrbenzin A.G. (Nine graphs attached.)
- 396-413 These frames are missing.
- 414-415 Use of primary fatty acids. Note signed by Roelen, dated May 4, 1943, Ruhrbenzin A.G.
- 416-417 Production of soap from the fatty acids yielded in the gasoline synthesis. Letter signed by Martin and Wächter, dated March 11, 1943.
- 418-421 Soap production from by-products of the carbon monoxide hydrogenation. Report by Roelen, dated Aug. 30, 1941. (A page on soap production taken from Chemie und Technologie der Fette und Fettprodukte, by Dr. H. Schönfeld, 2nd ed., Vol. IV, p. 176, (1939) is attached).

T.O.M. Reel 287 Cont'd

Frames

- 422 Internal letter concerning Patent Application R 584 dealing with the manufacture of soap. Letter signed by Roelen, dated Aug. 22, 1941. (Duplicated on Frame 426).
- 423-425 Process for the production of fatty acids from fatty aldehydes. Draft of a patent application by Roelen, dated Aug. 22, 1941, (Duplicated on Frames 427-429).
- 426 Duplicate of Frame 422.
- 427-429 Duplicate of Frames 423-425.
- 430-431 Separation of fatty acid mixtures. Letter signed by Roelen, dated Feb. 3, 1942.
- 432 Internal letter, subject: Soap samples. Letter signed by Büchner, dated Dec. 3, 1941.
- 433-435 Test of soap flakes from the synthesis of OXO compounds. Test report signed by Amende, dated Aug. 20, 1941, I.G. Farbenindustrie A.G., Ludwigshafen. (Two washing tests attached).
- 436-441 Utilization of the emulsion layer on the caustic soda liquor of the large scale plant. Report signed by Büchner, dated June 30, 1942.
- 442-448 Internal letter relating to objections to a patent specification, R 572, on the conversion of olefins. Letter signed by Roelen, dated June 11, 1942, (U.S. Patent 2,135,459 referred to).
- 449-451 Report on the purification of crude soap by extraction. Report by Büchner, dated July 28, 1941. (One table attached.)
- 452-457 Process for the separation of unsaponifiable components from their mixtures with saponifiable compounds. (Draft of a patent specification, N 43,538, IVa/23 e). Dr. Hermann Pardun, inventor, to Noblee & Thorl G.m.b.H., dated Aug. 23, 1939.
- 458 Letter to Chemische Werke Aussig-Falkenau Re: Sample of fatty acid. Letter dated May 5, 1941, Ruhrchemie A.G.
- 459-469 Synthesis production of fat. Note signed by Roelen, dated July 21, 1943, Attached are: Operation data and cost of synthetic fat production and one flow sheet, letter by Brabag to Ruhrchemie for records re fat synthesis, and two flow sheets.
- 470-471 Synthetic fat production. Note signed by Martin, dated July 14, 1943.

T.O.M. Reel 287 Cont'd

Frames

- 472-474 Separation of unsaponifiable portions from saponified products of hydrocarbon oxidation. Draft of a patent specification, M 138,824 IVa/23 e, dated July 31, 1937, Märkische Seifenindustrie, Witten.
- 475 Objection to a patent application regarding sulfonation of fatty alcohols. Letter signed by Roelen, dated Feb. 13, 1941. (German Patent Appl. M 136,992 and R 474 referred to).
- 476-479 Transformation of higher alcohols into fatty acid salts. Draft of a patent specification signed by Roelen, dated Feb. 12, 1941. (One flow sheet attached).
- 480-481 Oxidation of aldehydes. Internal letter signed by Roelen, dated Aug. 12, 1940.
- 482-486 Experiments for processing OXO soap. Note signed by Roelen, dated July 4, 1940.
- 487-488 Diluting raw aldehyde with heavy oil in fatty acid production. Internal letter signed by Roelen, dated June 17, 1940.
- 489-492 Examination of a paraffin gatch. Test report signed by Leithe, dated Jan. 27, 1940, Ammonia Laboratory, I.G. Farbenindustrie A.G., Oppau.
- 493-494 Only fragmentary document, dated April 10, 1940, is present.
- 495-503 Production of fatty acid by OXO synthesis. Letters signed by Roelen, dated April 1, 1940, Ruhrchemie A.G., Oberhausen-Holten and Dr. Paul Schneider, Feb. 1, 1940, Generalsachverständige für deutsche Roh- und Werkstoffe. (Flow sheets attached.)
- 504-505 Yield of the gasoline synthesis with an iron catalyst. Letter signed by Dr. Schneider, Feb. 1, 1940, Generalsachverständige für deutsche Roh- und Werkstoffe.
- 506-507 Increase of the yield of fatty acid in paraffin oxidation. Internal letter signed by Roelen, dated Jan. 4, 1940.
- 508-509 Synthesis of fatty acids. Internal letter signed by Roelen, dated Dec. 27, 1939. (German Patent 588,763 referred to.)
- 510-514 Reaction between carbon monoxide and water with regard to fatty acid synthesis. Internal letter signed by Roelen, Dec. 4, 1939.
- 515-516 Samples of fatty acid from the Diesel oil fraction of the Fischer synthesis. Letter dated Dec. 2, 1938, Henkel & Cie, Düsseldorf.

T.O.M. Reel 287 Cont'd

Frames

- 517-518 Test, by Dr. Thieme, of a fatty acid. Internal letter signed by Roelen, dated Dec. 23, 1938.
- 519-520 Transformation of "A" oils into soap. Report signed by Roelen, dated Nov. 22, 1938. (One flow sheet attached.)
- 521-524 Desirable qualities of paraffin gatsch for fatty acid-synthesis. Note signed by Dr. Velde, dated Oct. 20, 1938.
- 525-528 Acids obtained in the gasoline synthesis. Internal letter signed by Lachmann, dated Sept. 13, 1938.
- 529 Production of paraffin for the fatty acid synthesis. Report signed by Bahr, dated Aug. 26, 1938.
- 530 Testing of hard paraffins. Letter dated June 9, 1937, I.G. Farben-industrie A.G., Ludwigshafen.
- 531 Obtaining fatty acids by oxidation of hard paraffin. Letter signed by Roelen, dated Aug. 18, 1936.
- 532-536 Several short documents concerning sulfur removal and the purification of safety gas. Documents dated during 1944, one in 1943.
- 537-538 Catalytic final purification of synthesis gas. Internal letter signed by Roelen, dated July 30, 1942,
- 539 Coke gas purification. Internal letter signed by Roelen, dated Feb. 9, 1942.
- 540 Method for raising the porosity of the fine purifying substance. Internal letter, dated Dec. 12, 1941.
- 541-546 Fine purifying materials. Report by Roelen, dated April 22, 1940.
- 547-552 Desulfurization of the outgoing air in spinning mills. Letter signed by Roelen, dated Jan. 31, 1939. (Table and two letters from Spinnstoffwerk A.G., Glauchau incl.)
- 553-557 General problems of desulfurization. Report signed by Schuff, dated Sept. 27, 1938.
- 558-560 Determination of sulfur in the final gas of a two-shaft furnace. Letter signed by Roelen, dated July 20, 1938.
- 561-563 Production of pure hydrogen from gases containing sulfur and carbon monoxide. Report signed by Roelen, dated March 5, 1936.

T.O.M. Reel 287 Cont'd

Frames

- 564-567 Desulfurization of gases containing carbon monoxide and hydrogen in the presence of thiophene. Report dated April 5, 1938. (Reference is made to an English patent application A 302.)
- 568-569 Desulfurization of hydrocarbon vapors. Letters between Roelen and Kalk concerning French Patent 784,337 (A 303), dated during Jan. and Feb. 1938.