

LIST OF GERMAN DOCUMENTS ON
SYNTHESIS GAS PURIFICATION PROCESSES

Item

1. Report dated Dec. 12, 1936 by Dr. Geister of I. G. Farben-industrie entitled "Entstaubung" (Dust Removal)
2. Report by Dr. Sachsse entitled "Removal of Carbon Black and Dust from Gases with the Oppauer Schachtfilter."
3. M 202-8 - a simplified general flow-sheet showing the operation of the Alkazid Process.
4. Report by Drs. Jeltsch, Sommer and Bunger of visit made to the Alkazid Plant in Lutzkendorf, in regard to corrosion.
5. Confidential Reports (2) on the operating and supervision methods for the Alkazid process, entitled:
 - (a) "Betriebsverfahren und Hinweise zum Alkazidverfahren"
 - (b) "Richtlinien für den Betrieb und die Überwachung von Alkazid-Waschenlagen"
6. M3200-I - Flowsheet - showing an NaOH wash following the Alkazid absorption.
7. Ze 1416-2 - Flowsheet showing Claus process of converting hydrogen sulfide to molten elementary sulfur.
8. F.2.A.1 b - Flowsheet showing the Claus Ofen.
9. F.2.A.4 a - Flowsheet showing the NachverbrennungsOfen.
10. "Clausofen Operation", translated data covering complete operation of the Leuna Plant.
11. S-92 - A drawing which shows a schematic diagram of the I. G. process of hydrogen sulfide removal over carbon.
12. Drawing No. 711496 - A flow sheet of a "Grob- and Feinreinigung" sulfur removal unit
13. Drawing No. 4A34210 - Piping and Equipment arrangement of Claus plant.
14. Several short reports from Sept. 30, 1942 to May 25, 1943 on the subject of dust removal in multi-cyclone units.

Item

15. Reports by Herr Keinke dated Dec. 29, 1931 on "Verbrennen von H_2S zu Schwefel im Claus-Ofen" and by Dr. Hanisch dated Jan. 11, 1933 "Notiz über Versuche zur Gewinnung von elementarem Schwefel aus Gasen mit niedrigerem Schwefelwasserstoffgehalt." Early data on the Claus process.
16. A report by Dr. Braus dated Jan. 21, 1935 on "Berechnung der Verbrennungstemperaturen von Schwefelwasserstoff - Kohlensäuregemischen", giving theoretical data on combustion temperature of H_2S mixtures.
17. Tables of data dated Nov. 11, 1933 on requirements of Alkazid process for utilities, equipment, solutions, operating personnel, etc.
18. Analysis results and methods for gas purification catalysts.
19. Report by Dr. Bahr dated Oct. 2, 1936 on "Weiterentwicklung des Alkazid - und Claus Ofen - Verfahrens," reporting late developments in the Alkazid and Claus processes.
20. Report by Dr. Orlicek, dated July 11, 1941 on "Untersuchungen über die Lage des chemischen Gleichgewichtes beim Clausprozess", on the calculated and experimental chemical equilibrium in the Claus process.
21. Drawings A-1030-4 and U 1878-1, flowsheets on carbon monoxide removal.
22. Folder containing numerous short reports and drawings on the Alkazid process.
23. Four curves on CO , - CO_2 wash costs.
24. Drawing S-IV 3, Flowsheet of a pressure water wash process.
25. Folder containing report and several drawings concerning the removal of carbon oxy sulfide (COS) from gases.
26. Report by Dr. Partholome' dated Nov. 26, 1941 on "Über die Umsetzungsgeschwindigkeit des CO an braunoxyd-Kontakt bei höheren Drucken" giving data on reaction velocity over "Brown oxide" catalyst for the shift reaction.
27. Patent announcement dated June 27, 1939 on a process for catalytic recovery of S from gases containing H_2S .

Item

- 28 Report by Dr. Kuhbier dated April 24, 1939 on "Entschwefelungs-Verfahren der Sachtleben A.B." covering data on a process reacting H_2S and SO_2 in thiosulfate solution to produce sulfur.
- 29 Report on a meeting to exchange information on gas purification processes, dated Nov. 17, 1939.
- 30 Drawing 240-8 on layout plan for a Claus unit.
- 31 Report by Dr. Mengdehl dated August 22, 1938 "Ein neues Verfahren zur Trennung von Ammoniak und Kohlensäure bezw. Schwefelwasserstoff" describing a new process for separation of $NH_3 - CO_2 - H_2S$ mixtures.
- 32 Patentschrift No. 388857 dated 21 January 1924 to Firma Eduard Theisen in Munchen entitled "Stufen-Gas-O. dgl. Wascher", German patent on the Theisen washer for the purification of gases.
- 33 Patentschrift No. 5123288 dated 25 November 1939 to firma Eduard Theisen in Munchen entitled "Verfahren zum Reinigen von Gasen, Lieft, Dampfen U. dgl. German improvement patent in the design of the blades of the Theisen washer presented in the above patent No. 388857.

SUPPLEMENTAL TARGET

THE UNITED STATES NAVAL TECHNICAL MISSION IN EUROPE HAS PREPARED A TECHNICAL REPORT ENTITLED "SYNTHESIS GAS PURIFICATION PROCESSES IN GERMANY". TO ELABORATE THE SUBJECT MATTER OF THIS REPORT THE FOLLOWING SELECTED DOCUMENTS WERE FORWARDED TO THE BUREAU OF SHIPS AS AN APPENDIX TO THAT REPORT.

THE DOCUMENTS IN THIS FILM ARE A COMPLETE RECORD OF THIS APPENDIX FILMED IN THE ORDER AS LISTED IN THE INDEX CONTAINED BOTH IN THE TECHNICAL REPORT AND ALSO IN THE OPENING FRAMES OF THIS MICROFILM. FOR CONVENIENCE THE DOCUMENTS ARE NUMBERED. WHERE ONE FOLDER OF THE APPENDIX CONTAINED MORE THAN ONE REPORT THE INDIVIDUAL REPORTS WERE GIVEN LETTERED SUFFICES SUCH AS 22-a, 22-b, ETC.