



TID3349

TID-3349

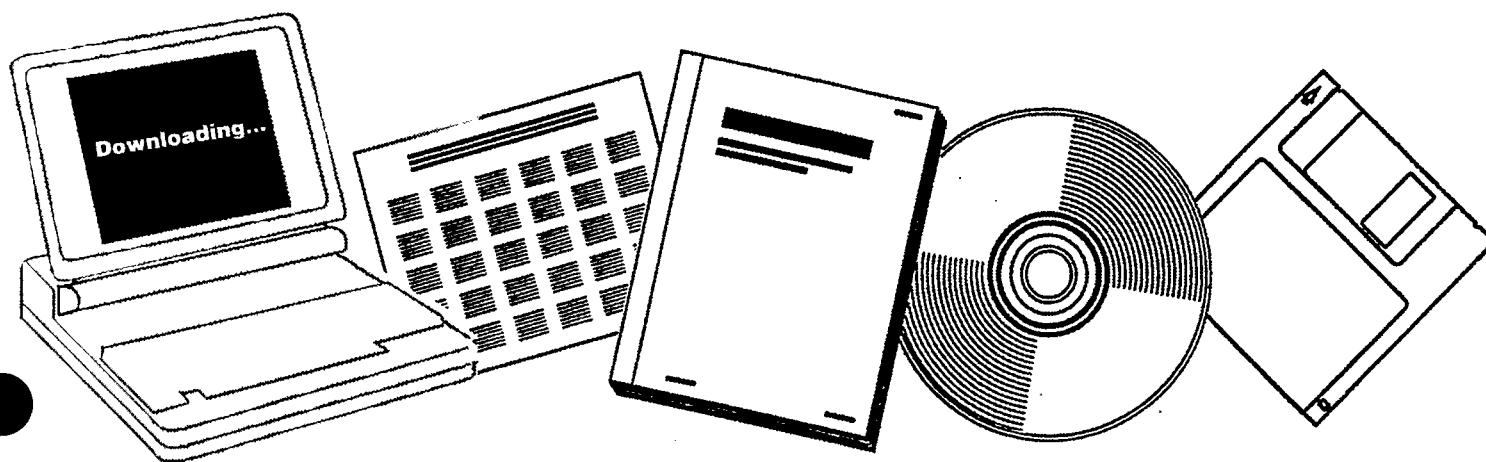
NTIS

One Source. One Search. One Solution.

**COAL PROCESSING: GASIFICATION,
LIQUEFACTION, DESULFURIZATION. A
BIBLIOGRAPHY, 1930--1974**

USAEC TECHNICAL INFORMATION CENTER, OAK
RIDGE, TENN

OCT 1974



U.S. Department of Commerce
National Technical Information Service

One Source. One Search. One Solution.

NTIS



**Providing Permanent, Easy Access
to U.S. Government Information**

National Technical Information Service is the nation's largest repository and disseminator of government-initiated scientific, technical, engineering, and related business information. The NTIS collection includes almost 3,000,000 information products in a variety of formats: electronic download, online access, CD-ROM, magnetic tape, diskette, multimedia, microfiche and paper.



Search the NTIS Database from 1990 forward

NTIS has upgraded its bibliographic database system and has made all entries since 1990 searchable on www.ntis.gov. You now have access to information on more than 600,000 government research information products from this web site.

Link to Full Text Documents at Government Web Sites

Because many Government agencies have their most recent reports available on their own web site, we have added links directly to these reports. When available, you will see a link on the right side of the bibliographic screen.

Download Publications (1997 - Present)

NTIS can now provides the full text of reports as downloadable PDF files. This means that when an agency stops maintaining a report on the web, NTIS will offer a downloadable version. There is a nominal fee for each download for most publications.

For more information visit our website:

www.ntis.gov



U.S. DEPARTMENT OF COMMERCE
Technology Administration
National Technical Information Service
Springfield, VA 22161

TID3349



COAL PROCESSING

gasification, liquefaction, desulfurization

A Bibliography 1930 1974

U.S. ATOMIC ENERGY COMMISSION
Office of Information Services
Technical Information Center

REPRODUCED BY: **NTIS**
U.S. Department of Commerce
National Technical Information Service
Springfield, Virginia 22161

NOTICE

This report was prepared as an account of work sponsored by the United States Government. Neither the United States nor the United States Atomic Energy Commission, nor any of their employees, nor any of their contractors, subcontractors, or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights.

This report has been reproduced directly from the best available copy.

Available from the National Technical Information Service, U. S. Department of Commerce, Springfield, Virginia 22161

ii - A

INTRODUCTION

The economic utilization of the Nation's vast coal reserves in the production of clean-burning gaseous and liquid fuels represents one of the more attractive and challenging contributions to a solution of the national energy dilemma.

To aid those individuals and organizations involved in coal gasification, liquefaction, and desulfurization research, the AEC's Office of Information Services, Technical Information Center has cataloged, indexed, and stored in machine-readable form the bulk of scientific and technical information published on these subjects since the early 1930s.

While not complete, this bibliography is believed to be sufficiently comprehensive to warrant publication at this time. As additional references are located, they will be added to the total information base for retrieval by computer.

References are arranged in broad subject categories as shown in the table of contents. Within a given category the arrangement is chronological.

The references are made up of complete bibliographic citations followed in many cases by clauses or phrases that elaborate the titles. These are followed by a listing of the subject descriptors used to describe each reference for machine storage and retrieval.

Three indexes are provided: Personal Author, Subject, and Report Number. The Personal Author Index is made up of an alphabetic listing of all authors of references. The authors' names are followed by the titles of the documents and citation numbers. For documents having multiple authors, the second and succeeding authors are referenced to the first author.

The Subject Index is an alphabetic listing of the more significant of the subject descriptors chosen to describe the document content. In most instances the subject descriptors are entered in pairs separated by a slash, and the second term has been selected to more specifically delineate the first. Each subject entry is then followed by the title of the document, the elaborating clause or phrase, and the citation number.

The Report Number Index is an alphanumeric listing of report numbers. The report numbers are followed by availability statements that include all known information related to the public availability and price of the reports.

A glossary is included that briefly describes various named processes used in converting and purifying coal.

GLOSSARY OF NAMED PROCESSES

ADIP PROCESS A process for the substantial removal (to a few ppm) of hydrogen sulfide and the partial removal of incidental carbon oxysulfide, carbon dioxide, and mercaptans.

ALKAZID PROCESS A process for the selective absorption of hydrogen sulfide and for the simultaneous removal of hydrogen sulfide and carbon dioxide at atmospheric or higher pressures.

ATGAS PROCESS Applied Technology Corporation process for producing intermediate- or high-Btu gas using molten iron gasification technique to gasify all types of coal with steam and oxygen at 5 psia pressure and 2600°F. The process can be adapted to make low-Btu gas by using air instead of oxygen.

BEAVON PROCESS A process for sulfur removal for purification of Claus unit tail gas to well below 250 ppm of sulfur dioxide. Process combines hydrogenation, cooling, and wet oxidative extraction and yields a sulfur by-product.

BENFIELD PROCESS A process for removal of carbon dioxide, hydrogen sulfide, and carbon oxysulfide from sour natural gas and raw gases produced during manufacture of substitute natural gas by partial oxidation of coal or oil by naphtha reforming.

BI-GAS PROCESS Bituminous Coal Research, Inc. process for producing intermediate- or high-Btu gas by reaction of coal with steam in a gasifier operating at 1000–1500 psi and 3000 and 1700°F in stage 1 and stage 2, respectively. The gasifier may be operated on air rather than oxygen at moderate pressures to produce a low-Btu gas.

CARBON DIOXIDE ACCEPTOR PROCESS Consolidation Coal Company process for producing high-Btu gas by catalytic methanation of synthesis gas. Heat for the reaction of coal and steam is supplied by reacting the carbon dioxide formed with calcined dolomite.

CATACARB PROCESS A process for gas purification by removal of acid gases.

CHEMICO PROCESS A process using an aqueous suspension of magnesium oxide for removal of sulfur dioxide from flue gas.

CLEANAIR PROCESS A process for recovery of 99.9% of sulfur from Claus plant tail gas, leaving no more than 200 ppm sulfur dioxide equivalent in the effluent.

COED PROCESS (Char Oil Energy Development) FMC Corporation process that converts coal to synthetic crude oil, gas, and char in four fluidized-bed gasification stages.

COGAS PROCESS A two-step coal conversion process involving pyrolysis followed by gasification of the resultant char.

CONSOL PROCESS See CSF Process.

CSF PROCESS Consolidation Coal Company process for the direct conversion of coal to synthetic crude oil by hydrogenation after solvent extraction (extension and improvement over Pott and Broche Process)

FISCHER-TROPSCH SYNTHESIS A method for converting carbon monoxide and hydrogen to liquid hydrocarbon.

FLUOR ECONAMINE PROCESS A process for removal of acidic impurities (hydrogen sulfide and carbon dioxide) from gas streams. Treating agent used is aqueous solution of primary alkanolamine, trade named Diglycolamine.

FLUOR SOLVENT PROCESS A process for removal of high concentrations of acidic impurities (carbon dioxide and hydrogen sulfide) from natural or synthetic gas streams using anhydrous propylene carbonate.

FULHAM-SIMON-CARVES PROCESS A process for recovery of sulfur from flue gases by causing flue gas to react directly with ammonia liquor from gas works followed by processing of solution to give ammonium sulfate and sulfur. Sulfites are formed first and then converted to sulfates and elementary sulfur.

GIAMMARCO VETROCOKE SULFUR PROCESS A process for the continuous removal of hydrogen sulfide from natural gas or synthesis gases by scrubbing sour gas with an alkali arsenate or arsenite solution.

H-COAL PROCESS Hydrocarbon Research, Inc. process for the direct catalytic conversion of whole coal to synthetic crude oil at moderate temperature (950°F) and high pressure (2250-2700 psig).

HYDRANE PROCESS U.S. Bureau of Mines process in which pulverized coal is fed to the hydrogenation reactor where it is contacted with a concurrent stream of hot gas (about 50% methane and 50% hydrogen).

HYGAS PROCESS Institute of Gas Technology hydrogasification process for producing high-Btu gas by slurring the coal with light oil and using a three-stage gasifier.

IFP PROCESS A process for removal of hydrogen sulfide and sulfur dioxide from Claus unit tail gas to a sulfur dioxide level of 1,500 to 2,000 ppm (IFP-1) or 500 ppm or below (IFP-2) and stack gas clean-up to take sulfur dioxide down to or below 500 ppm.

KELLOGG PROCESS (Molten Salt Process) M. W. Kellogg Company process for producing high-Btu gas in which synthesis gas, produced by using molten salt (sodium carbonate) to provide heat and possibly catalyze the reaction, is methanated.

KOPPERS-TOTZEK PROCESS A process in which all types of coal can be reacted at atmospheric pressure and 3300°F with steam and oxygen in a gasifier (a refractory-lined, horizontal, cylindrical vessel with conical ends) to produce intermediate- or high-Btu gas.

LURGI PROCESS A process in which noncaking coal is converted into intermediate- or high-Btu gas at 1150 to 1400°F and 350 to 450 psi in a moving bed gasifier. Substitution of air for oxygen will produce low-Btu gas.

MOLECULAR SIEVE PROCESS A process to dehydrate and to remove carbon dioxide and sulfur compounds from natural gas.

MOLTEN CARBONATE PROCESS See Kellogg Process.

MOVING-BURDEN PROCESS A three-vessel fluidized bed process for the gasification of coal.

PAMCO SRC PROCESS See SRC Process.

PEROX PROCESS A process for the removal of hydrogen sulfide from waste gases.

POTT AND BROCHE PROCESS Direct conversion of coal to synthetic crude oil by hydrogenation after solvent extraction.

PURISOL PROCESS A process for removal of acid gases from syngas and natural gas streams using physical absorption in N-methylpyrrolidone.

RECTISOL PROCESS A process using methanol as solvent for removal of carbon dioxide, hydrogen sulfide, ammonia, hydrogen cyanide, gum formers, high hydrocarbons, and other impurities from crude gas produced by coal gasification for SNG manufacture.

SCOT PROCESS A process for increasing sulfur recovery efficiency of Claus units from the usual level of about 95% to more than 99.8%.

SEABOARD PROCESS A wet scrubbing process for the removal of hydrogen sulfide from refinery and petroleum oil gas streams.

SEACOKE PROCESS A fluidized-bed pyrolysis of coal (with partial counterflow of gas and char to maximize liquid and gas yield from volatile matter of coal) to produce gas, liquid, and solid product streams, developed by Atlantic Refining Co. (now Atlantic Richfield Co.).

SELEXOL PROCESS A process for gas purification and removal of hydrogen sulfide, carbon dioxide, carbon oxysulfide, mercaptans, etc., from gas streams by physical absorption. The solvent, dimethyl ether of polyethylene glycol, trade name Selexol, has strong preference for sulfur-based compounds, while retaining the capability to absorb bulk quantities of all impurities economically. It is also capable of simultaneously dehydrating to pipeline specifications.

SNPA-DEA PROCESS A process for sweetening raw gas streams containing a total of about 10% or more of acid gases (hydrogen sulfide plus carbon dioxide) at operating pressures of about 500 psig or higher.

SRC PROCESS The Pittsburgh and Midway Coal Mining Company process for producing low-sulfur, ash-free material that can be handled either in a liquid or solid form.

STONE AND WEBSTER IONICS PROCESS Desulfurization process using aqueous caustic soda solution to absorb sulfur dioxide. Solution is regenerated in electrolytic cells.

STRETFORD PROCESS A process for sweetening natural and industrial gases by complete removal of hydrogen sulfide and partial removal of organic sulfur compounds. The gas is washed with aqueous solution containing sodium carbonate, sodium vanadate, anthraquinonedisulfonic acid.

SULFINOL PROCESS A process for removal of acidic gas constituents such as hydrogen sulfide, carbon dioxide, carbon oxysulfide, and mercaptans from natural, refinery, and synthesis gases and LNG feedstocks.

SULFREEN PROCESS A process for desulfurization of residue gas from Claus tail unit to produce liquid sulfur. Hydrogen sulfide and sulfur dioxide are made to react at temperatures below the sulfur dew point of the reaction gas mixture.

SYNTHANE PROCESS U.S. Bureau of Mines process for producing intermediate- or high-Btu gas by reacting coal with steam and oxygen in a fluidized-bed gasifier at 1800°F and 500–1000 psi pressure.

SYNTHOIL PROCESS U.S. Bureau of Mines process for converting coal into fuel oil by feeding coal slurry into a fixed-bed catalytic reactor with turbulently flowing hydrogen. The operating conditions are 2000–4000 psig, and the coal is liquefied and desulfurized.

TAKAHAX PROCESS A process for the removal of up to 99.9% of hydrogen sulfide from gas streams particularly those with low initial hydrogen sulfide concentration and/or high carbon dioxide/hydrogen sulfide ratios.

TOSCOAL PROCESS The Oil Shale Corporation pyrolysis process that produces char with a high heating value plus oil and gas. Hot ceramic balls are used as a heat source.

TOWNSEND PROCESS A process that sweetens natural gas by treating it with a solution of sulfur dioxide in hygroscopic organic liquid, e.g., diethylene glycol containing no more than 10% water.

TYCO PROCESS A process for removal of sulfur dioxide, nitric oxide, and nitrous oxide from flue gas.

U-GAS PROCESS Institute of Gas Technology process for producing low-Btu gas (140 Btu/SCF) by reacting crushed coal with air and steam in a single-stage fluidized-bed gasifier at 350 psi and 1900°F.

UHDE-PFIRRMANN PROCESS A direct conversion of coal to synthetic crude oil by hydrogenation during and after solvent extraction.

WESTVACO PROCESS A process using dry activated carbon to remove sulfur dioxide from waste gases.

WINKLER PROCESS Davy Powergas Inc. process for producing intermediate- or high-Btu gas that utilizes a fluid bed gasifier operating at 1500–1850°F and using oxygen and steam. Substitution of air for oxygen will produce low-Btu gas.

W-L SULFUR DIOXIDE RECOVERY PROCESS A process for desulfurization of waste gas stream developed by Wellman–Power Gas, Inc.

CITATIONS

GENERAL

- 00001 RESEARCH AND TECHNOLOGIC WORK ON COAL AND RELATED INVESTIGATIONS, 1954. Carman, E.P.; Caldwell, D.L. (U. S. Bur. of Mines, Washington, DC). U. S. Bur. Mines, Inform. Circ.: No. 7756, 80p.(1956).
COAL;RESEARCH PROGRAMS;USA
- 00002 BUREAU OF MINES RESEARCH AND TECHNOLOGIC WORK ON COAL, 1959. Ezekiel, W.N. (U. S. Bur. of Mines, Pittsburgh, PA). U. S. Bur. Mines, Inform. Circ.; No. 8098, 119p.(1962).
COAL;RESEARCH PROGRAMS
- 00003 BUREAU OF MINES RESEARCH AND TECHNOLOGIC WORK ON COAL, 1960. Anon. (U. S. Bur. Mines, Washington, DC). U. S. Bur. Mines, Inform. Circ.; No. 8119, 121p.(1962).
Report with 153 references. USA;RESEARCH PROGRAMS;COAL
- 00004 BIBLIOGRAPHY OF BUREAU OF MINES INVESTIGATIONS OF COAL AND ITS PRODUCTS. Anon. U. S. Bur. Mines, Inform. Circ.; No. 8049, 161p.(1962).
COAL;BIBLIOGRAPHIES;RESEARCH PROGRAMS
- 00005 BUREAU OF MINES RESEARCH AND TECHNOLOGIC WORK ON COAL, 1961. Anon. U. S. Bur. Mines, Inform. Circ.; No. 8167, 121p.(1963).
Review with 131 references. COAL;RESEARCH PROGRAMS;REVIEWS
- 00006 SOLID AND GASEOUS FUELS. Abernethy, R.F.; Christos, T. (U. S. Dept. of the Interior, Pittsburgh, PA). Anal. Chem.; 35: No. 5, 78R-89R(1963).
Review with 158 references. SOLIDS;GASES; FOSSIL FUELS;REVIEWS;COAL
- 00007 BUREAU OF MINES RESEARCH AND TECHNOLOGIC WORK ON COAL, 1962. Anon. (U. S. Bur. of Mines, Washington, DC). U. S. Bur. Mines, Inform. Circ.; No. 8189, 112p.(1963).
Discussion with 113 references. USA;RESEARCH PROGRAMS;COAL
- 00008 RESEARCH AND TECHNOLOGIC WORK ON ALABAMA COALS: AN ANOTATED BIBLIOGRAPHY. Shotts, R.Q.; Gayle, J.B. (U. S. Bur. of Mines, Tuscaloosa, AL). U. S. Bur. Mines, Inform. Circ.; No. 8186, 102p.(1963).
458 references. RESEARCH PROGRAMS;ALABAMA; COAL;BIBLIOGRAPHIES
- 00009 BUREAU OF MINES RESEARCH AND TECHNOLOGIC WORK ON COAL, 1963. Spencer, J.D. (U. S. Bur. of Mines, Morgantown, WV). U. S. Bur. Mines, Inform. Circ.; No. 8237(11), 128p.(1964).
RESEARCH PROGRAMS;COAL;USA
- 00010 SOLID AND GASEOUS FUELS. Abernathy, R.F.; Walters, J.G. (U. S. Dept. of Interior, Pittsburgh, PA). Anal. Chem.; 37: No. 5, 222R-32R(1965). (In English).
Review with many references. SOLIDS;GASES; FUELS
- 00011 COAL RESEARCH ORGANIZATIONS - WORLDWIDE ACTIVITIES AND PUBLICATIONS. Esfandiary, M.S.; Perry, H. (U. S. Bur. of Mines, Washington, DC). U. S. Bur. Mines, Inform. Circ.; No. 8279, 37p.(1966). (In English).
Revision of CA 55:18067-d. COAL;RESEARCH PROGRAMS
- 00012 COMPETITIVE FUTURE OF COAL IN THE ENERGY PRODUCTION FIELD. Schmechel, W.P. Montana Bur. Mines Geol., Spec. Publ.; No. 36, 35-40(1966). (In English).
COAL;ENERGY;PRODUCTION
- 00013 (PB-204 139) REVIEW OF BUREAU OF MINES ENERGY PROGRAM, 1970. INFORMATION CIRCULAR. Linville, B.; Spencer, J.D. (Bureau of Mines, Washington, DC). 1971. 120p.p. (BM-IC-8526). NTIS \$3.00, \$0.95 (MF).
COAL;PETROLEUM;OIL SHALES;RESEARCH PROGRAMS
- 00014 (BM-IC-8526) REVIEW OF BUREAU OF MINES ENERGY PROGRAM, 1970, B. LINVILLE (BARTLESVILLE ENERGY RES. CENT, OK). Spencer, J.D. 1971. 111p.
Includes bibliography. OIL SHALES;PETROLEUM; FUEL GAS;COAL;REVIEWS;RESEARCH PROGRAMS; BIBLIOGRAPHIES
- 00015 (EN-121) BITUMINOUS COAL DATA, 1970 EDITION. (National Coal Association (USA)). Mar 1971. 126p. National Coal Association \$10.00.
Industrial statistics. COAL;STATISTICS; BITUMINOUS COAL;COAL RESERVES;DIAGRAMS; ECONOMICS;MARKET;POWER GENERATION
- 00016 BIBLIOGRAPHY AND INDEX OF US GEOLOGICAL SURVEY PUBLICATIONS RELATING TO COAL, 1882-1970. Averitt, P.; Lopez, L. Washington, DC; US Dept. Interior, Geological Survey (1972). 173p. (EN-1680). GPO \$0.75.
About 1300 citations. COAL;BIBLIOGRAPHIES
- 00017 (BM-IC-8612) BUREAU OF MINES ENERGY PROGRAM, 1972. Linville, B.; Spencer, J.D. 1972. 107p.p.
Review of research in 20 major areas. 185

referenes. RESEARCH PROGRAMS;REVIEWS;NATURAL GAS;OIL SHALES;COAL;PETROLEUM

00018 COAL RESEARCH. Hill, G.R. (Coll. Mines Miner. Ind., Univ. Utah, Salt Lake City, Utah). Chem. Technol.; 2: No. 5, 292-7(1972). (In English).

Review with 17 references. COAL;RESEARCH PROGRAMS

00019 DIRECT COMBUSTION OF HIGH-SULFUR COAL USING TODAY'S GAS TURBINES. Furlong, D.A. (Combustion Power Co., Inc., Menlo Park, CA). Proc. Amer. Power Conf.; 35: 684-690(1973). From The American Power conference; Chicago, Illinois, USA (8 May 1973).

See CONF-730582--.

CPU-400 waste disposal unit converted to coal-burning unit. COMPARATIVE EVALUATIONS;COAL; COMBUSTION;SOLID WASTES;SULFUR;WASTE DISPOSAL; GAS TURBINES;FLUIDIZED BED;COST;RELIABILITY; ELECTRIC POWER;STEAM TURBINES;COAL;PYROLYSIS; GASIFICATION;ENERGY SOURCES;ENVIRONMENT; CONVERSION

PROCESSING

REFER ALSO TO CITATIONS 1571, 4438, 7385, 7406

00020 ENRICHMENT IN METHANE OF COKE-OVEN GAS BY DIFFUSION THROUGH POROUS WALLS. Ann. Combustibles Liquides; 4: 905-923(1929). COAL GAS;METHANE;HYDROGEN;DIFFUSION; ENRICHMENT

00021 RECENT DEVELOPMENT IN COAL PREPARATION AND UTILIZATION. Fieldner, A.C. Minerals Yearbook; 627-43(1934). Review includes O enrichment in complete gasification, carbonization, hydrogenation, and liquefaction of coal, and synthetic hydrocarbons from gases. COAL GASIFICATION;COAL LIQUEFACTION;COAL;HYDROGENATION;REVIEWS; CARBONIZATION

00022 APPARATUS FOR DESTRUCTIVE DISTILLATION OF COAL, SHALE, ETC. Moore, S. US Patent 2,017,442. 15 Oct 1934. Apparatus using horizontal retort and endless-chain conveyer. COAL;OIL SHALES; DISTILLATION;RETORTING;RETORTS;DESIGN

00023 COKING PROCESS AND APPARATUS. Wright, H.T. British Patent 419,370. 12 Nov 1934. Recovery of distillates and smokeless fuel residue. COAL;OIL SHALES;LIGNITE;COKING; DISTILLATION;RETORTS;DESIGN;STEAM;COOLING; DISTILLATION;REMOVAL

00024 DEVELOPMENT OF TORBANITE IN SOUTH AFRICA. Duff, W. S. Afr. Mining Eng. J.; 46: No. (Pt. II), 105-7(1935). OIL SHALES;COAL;SOUTH AFRICA;MINING; RETORTING;TORBANITE

00025 PROCESS AND APPARATUS OR RECOVERING PETROLEUM PRODUCTS FROM SHALE, ETC. MacDonald, D.F. British Patent 428,990. 22 May 1935. Distillation of mixture of oil shale and coal; scrubbing of gaseous products, hydrogenation of oils. OIL SHALES;COAL; PETROLEUM PRODUCTS;RETORTING;HYDROGENATION; LIQUID PRODUCTS;GASEOUS PRODUCTS;RETORTS;DESIGN; HIGH TEMPERATURE;VERY HIGH TEMPERATURE; DISTILLATION;PROCESSING;SHALE OIL;PRODUCTION

00026 DISTILLING SOLID CARBONACEOUS

MATERIALS. Hastings, J.H. British Patent 431,397. 5 Jul 1935.

In contact with superheated steam and heated refractory material. COAL;PEAT;LIGNITE;OIL SHALES;DISTILLATION;EQUIPMENT;HEATING; SUPERHEATED STEAM

00027 PROCESS AND APPARATUS FOR RECOVERING OIL FROM SHALES, ETC. Gotting, H.E.; Browne, J.M. British Patent 448,279. 5 Jun 1936. Distillation of shales, cracking of heavier fractions. OIL SHALES;SHALE OIL;COAL; DISTILLATION;RETORTING;CRACKING;EQUIPMENT; PROCESSING

00028 ADDITION OF A DESICCANT TO A FLUIDIZED-IRON REDUCTION PROCESS. Slater, W.L., Jr. (to Texas Co.). US Patent 2,550,609. 24 Apr 1951.

In regeneration of Fe catalyst. CATALYSTS; REGENERATION;REDUCTION;IRON OXIDES;IRON;WATER VAPOR;REMOVAL;CALCIUM CARBIDES

00029 BASIC FACTORS IN THE TREATING OF COAL TARS. Szezepank, R. Przem. Chem.; 11: 547-9(1955).

Review; emphasizes effect of market demand on degree of coal tar refining. COAL TAR; REVIEWS;ECONOMICS;REFINING

00030 CERTAIN PROBLEMS IN THE TREATING OF COAL TARS. Wnek, M. Przem. Chem.; 11: 541-7(1955).

Review, 33 references. COAL TAR;REVIEWS

00031 FUNDAMENTAL RULES OF HIGH-TEMPERATURE COAL-TAR TREATMENT [IN POLAND]. II. Szczepanik, R. Przem. Chem.; 35: 358-63(1956). (In English and Russian). Discussion of development. POLAND;COAL TAR

00032 STUDY OF THERMAL AND CHEMICAL ACTIVATION OF TALC-BASED CATALYSTS FOR SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN. Bashkirov, A.N.; Novak, F.I. Khim. Tekhnol. Toplív Masel; No. 10, 32-6(1956). Effects of the following additives were studied: LiOAc₃; NaOAc₃; Na₂B₄O₇; Na₂CO₃; K₂CO₃; KNO₃; K₂Cr₂O₇; K₂WO₄; K₂SiO₃; KOH; KMnO₄; KBr; KCl; K₂SO₄; and Ba(OH)₂. CARBON MONOXIDE; REDUCTION;HYDROGEN;CATALYSTS;TALC;ANNEALING; ADDITIVES;ACETATES;LITHIUM COMPOUNDS;SODIUM COMPOUNDS;BORATES;SODIUM CARBONATES;POTASSIUM CARBONATES;POTASSIUM COMPOUNDS;CHROMATES; TUNGSTATES;SILICATES;POTASSIUM HYDROXIDES; PERMANGANATES;POTASSIUM BROMIDES;POTASSIUM CHLORIDES;POTASSIUM SULFATES;BARIUM HYDROXIDES

00033 ACTIVITY LOWERING OF A HYDROGENATION CATALYST BY CONTAMINANTS FROM TARS. Svajgl, O. Chem. Prumysl; 8: No. 1, 13-17(1958). Brown coal semi-coke saturated with Fe compounds with S addition used as catalyst. CATALYSTS;CHEMICAL ACTIVATION;COAL TAR

00034 BIBLIOGRAPHY OF BUREAU OF MINES INVESTIGATIONS OF COAL AND ITS PRODUCTS. Carman, E.P.; Bayes, F.S. (U. S. Bur. Mines, Washington, DC). U. S. Bur. Mines, Inform. Circ.; No. 7825, 135p.(1958). 999 references. COAL;BIBLIOGRAPHIES;USA

00035 GRINDING OF COAL IN LIQUIDS FOR CRUDE PASTE PREPARATION FOR COAL HYDROGENATION. Sakabe, T.; Ogo, Y. (Resource Research Inst., Kawaguchi). Kogyo Kagaku Zasshi; 63: 830-4(1960). COAL;GRINDING;LIQUIDS;COAL PASTES;CHEMICAL PREPARATION;HYDROGEN;JAPAN;WATER;OILS

00036 BUREAU OF MINES PUBLICATIONS ON COAL PREPARATION, 1910-60. Deurbrouck, A.W. (U. S. Bur. of Mines, Pittsburgh, PA). U. S. Bur. Mines, Inform. Circ.; No. 8059, 29p.(1961).

- Brief abstracts of technical papers, information circulars, reports of investigations, and bulletins on coal preparation. USA;COAL;CHEMICAL PREPARATION
- 00037 CONVERSION OF COAL TO FLUID FUELS. ABSTRACTS OF SELECTED GERMAN PATENT APPLICATIONS. Lichtig, I. (U. S. Bur. of Mines, Washington, DC). U. S. Bur. Mines, Inform. Circ.; No. 8065, 112p.(1962).
Patent applications from end of World War II to end of 1956. COAL;FLUIDIZATION;GERMAN FEDERAL REPUBLIC
- 00038 TECHNOLOGICAL DEVELOPMENT OF THE PROCESSING OF COAL TAR AND ITS FRACTIONS. Privalov, V.E.; Bron, Y.A.; Bondarenko, L.M.; Gogoleva, T.Y. (USSR). Sb. Nauch. Tr., Urk. Nauch.-Issled. Uglekhim. Inst.; No. 19, 167-76(1968). (In Russian).
Review with attention to work in USSR, 1950-65. COAL TAR;REVIEWS;USSR
- 00039 SOLID FUEL RESEARCH. Tearle, K.A. Ind. Process Heat.; 9: No. 7, 26-9(1969). (In English).
Review of solid fuel research as well as fundamental research on combustion in fluidized bed, extraction of chemicals from coal tar and production of metallurgical coke, nonfuel uses of coal, e.g., solvent extraction and hydrogasification at high temperatures and pressures. COAL GASIFICATION;COAL;HYDROGENATION; FLUIDIZED BED;COMBUSTION;ORGANIC COMPOUNDS; PRODUCTION;COAL TAR;COKE;SOLVENT EXTRACTION; REVIEWS
- 00040 DISSOLUTION OF COAL AT TEMPERATURES LESS THAN 200°C. Koelling, G. Angewandte Chemie; 82: No. 2, 87(1970). (In German).
Coal solubility greatly increased when coal was alkylated with chlorides of higher fatty acids in presence of Al chloride at 50°C; corrected molecular weight of extract appeared to be 3000. COAL;DISSOLUTION;MEDIUM TEMPERATURE; ALKYLATION;ORGANIC CHLORINE COMPOUNDS
- 00041 CHEMICALS FROM COAL. Batchelder, H.R. (Pattelle Mem. Inst., Columbus, Ohio). Ind. Eng. Chem., Prod. Res. Develop.; 9: No. 3, 341-3(1970).
Review (to 1962); no references. COAL;COAL TAR;COAL TAR OILS;COAL GAS;COKE;REVIEWS
- 00042 STORCH AWARD ADDRESS. FUNDAMENTAL RESEARCH ON COAL PROCESSES. PAPER NO. 10. Hill, G.R. (Dept. Mineral Engineering, Univ. of Utah, Salt Lake City, Utah). American Chemical Society, Division of Fuel Chemistry. 162. ACS National Meeting, Washington, DC, Sep 15-16, 1971. Washington, DC; American Chemical Society, Division of Fuel Chemistry (1971).
From 162. ACS National Meeting; Washington, DC (15 Sep-16 Sep 1971).
COAL;RESEARCH PROGRAMS
- 00043 COAL UTILIZATION UNDER CHANGING ENERGY PATTERNS AND SOCIAL RESTRAINTS. CONFERENCE PAPER. Murphy, Z.E.; Sheridan, E.T. Washington, DC; US Dept. Interior, Bur. Mines, Div. of Fossil Fuels (1971). 22p.
From 1971 Industrial Coal Conference; Purdue Univ., Lafayette, IN (6 Oct 1971).
Methods for converting coal to cleaner synthetic fuels are described. COAL MINING;AIR POLLUTION;WATER POLLUTION;COAL GASIFICATION; COAL LIQUEFACTION;PRODUCTION;SYNTHETIC FUELS
- 00044 REVIEW OF COAL TAR TECHNOLOGY, VOL. 23, PT. 2. Drake, W.D. (Ed.). Gomersal, Engl.; Coal Tar Res. Ass. (1971). 182p.
COAL TAR;REVIEWS
- 00045 (PB-211 456) BUREAU OF MINES ENERGY PROGRAM 1971. INFORMATION CIRCULAR. Spencer, J.D.; Linville, B. (Bureau of Mines, Washington, DC). 1972. 110p.p. (BM-IC-8551). NTIS \$5.45, \$0.95 (MF).
Environmental aspects of the extraction, processing, and utilization of coal. COAL GASIFICATION;COAL;HYDROGENATION;CARBONIZATION; COMBUSTION;ENVIRONMENTAL EFFECTS
- 00046 (EN-1541) OFFICE OF COAL RESEARCH ANNUAL REPORT 1972. (US Dept. Interior, Office of Coal Research). 11 Feb 1972. 111p. GPO \$1.00.
COAL;RESEARCH PROGRAMS;PRODUCTION;SYNTHETIC FUELS;COAL MINING;DESULFURIZATION;COMBUSTION
- 00047 SOLVATION OF COAL IN BY-PRODUCT STREAMS. Roach, J.W.; Garwin, L. (to Kerr-McGee Corp.). US Patent 3,642,608. 15 Feb 1972.
Coal solubilized in highly aromatic petroleum by-product streams to produce coal solution having low viscosity with decreased ash and S content. COAL;DISSOLUTION;AROMATICS; SULFUR;REMOVAL;DESULFURIZATION;RESIDUES;ORGANIC SOLVENTS;RECOVERY
- 00048 DECOMPOSITION OF HEAVY COAL-TAR PRODUCTS FROM THE THERMAL REPROCESSING OF COAL. Turenko, F.P.; Baranskii, A.D.; Titov, I.P.; Dorofeev, A.G.; Kovalenko, P.G. (to Zhdanov, A. A., State University, Irkutsk). USSR Patent 342,886. 22 Jun 1972.
Coal tar products decomposed by mixing with chemical reagents; products treated with solvents with subsequent separation by centrifugation; solid residue treated with steam-air mixture. COAL TAR;STEAM;AIR;ORGANIC SOLVENTS;DECOMPOSITION
- 00049 (PB-224 482/0) HYDROGEN AND OTHER SYNTHETIC FUELS. SUMMARY OF THE WORK OF THE SYNTHETIC FUELS PANEL. (Division of Reactor Development and Technology (AEC), Washington, DC). Sep 1972. 139p.p. (TID-26136). NTIS \$4.75, \$1.45 (MF).
Review; nonfossil fuels; especially H, including production, storage, transmission, and end uses. SYNTHETIC FUELS;PRODUCTION; ELECTRIC POWER;HYDROGEN;TRANSPORT;STORAGE; METHANOL;REVIEWS;COAL
- 00050 DEVELOPMENTAL AND RATE STUDIES IN PROCESSING OF COAL MINERALS. Jensen, G.A. Pullman, WA; Washington State Univ. (1973). 137p. University Microfilms Order No. 74-4108.
Thesis (Ph. D.).
REMOVAL;PROCESSING;COAL;MINERALS;FLUIDIZED BED REACTORS;SOLVENT-REFINED COAL;FLY ASH; RESIDUES;FUEL GAS;IRON;SULFUR;ALUMINIUM OXIDES; COAL GASIFICATION;SILICON OXIDES;KINETICS; CHEMICAL REACTIONS
- 00051 ANNUAL REVIEW OF FUELS FOR 1972. COAL. Toyoda, S. (Pollut. Resour. Res. Inst., Saitama, Japan). Nenryo Kyokai-shi; 52: No. 6, 397-404(1973).
39 references. REVIEWS;FUELS;COAL
- 00052 SUMMARY PRESENTATION: AN OVERVIEW OF COAL CONVERSION TECHNOLOGY. Waterman, W.W. (Inst. of Gas Tech., Chicago). pp 673-684 of Clean fuels from coal. Chicago; Inst. of Gas Tech. (1973).
From Symposium on clean fuels from coal; Chicago, Illinois, USA (10 Sep 1973).
See CONF-7309113-
FLOWSHEETS;COAL GASIFICATION;PYROLYSIS; HYDROGENATION;COAL LIQUEFACTION;COMPARATIVE EVALUATIONS;BI-GAS PROCESS;COED PROCESS; SYNTHANE PROCESS;CARBON DIOXIDE ACCEPTOR PROCESS;ATGAS PROCESS;TOSCOAL PROCESS;H-COAL

- PROCESS; SOLVENT-REFINED COAL; PRODUCTION
- 00053 RECENT COAL RESEARCH AND COAL CHEMISTRY IN THE FUTURE. Ito, M. (Fac. Eng., Hokkaido Univ., Sapporo, Japan). *Aromatikkusu*; 25: No. 1, 4-14(1973).
Review with no references. COAL; RESEARCH PROGRAMS; CHEMISTRY; REVIEWS
- 00054 (NP--20132) COAL TECHNOLOGY: KEY TO CLEAN ENERGY. (Office of Coal Research, Washington, D.C. (USA)). 1973. 153p. GPO \$2.20.
Summaries of individual research projects (high-btu gas, low-btu gas, low-sulfur liquid and solid fuels, power generation systems, and supporting projects) and patents, list of technical reports. COAL GASIFICATION; RESEARCH PROGRAMS; PATENTS; HIGH BTU GAS; LOW BTU GAS; LIQUID FUELS; POWER; PRODUCTION; COAL LIQUEFACTION; DESULFURIZATION
- 00055 DEVELOPMENT OF SYNTHETIC FUELS. 1. Kim, K.H. (S. Korea). *Sukyu Kisul*; 4: No. 1, 53-60(1973).
Review with no references on resources of synthetic fuels and their production processes from oil shale, tar sand, and coal. SYNTHETIC FUELS; PRODUCTION; REVIEWS; OIL SHALES; TAR SANDS; COAL
- 00056 (PB--224399-6-GA) BUREAU OF MINES ENERGY PROGRAM, 1972. Linville, B.; Spencer, J.D. (Bureau of Mines, Washington, D.C. (USA)). Aug 1973. 117p. NTIS \$4.25.
RESEARCH PROGRAMS; ENERGY; ENERGY SOURCE CONSERVATION; PETROLEUM; NATURAL GAS; OIL SHALES; COAL; PERSONNEL; COMBUSTION; SHALE OIL; ENVIRONMENT; GASIFICATION; POWER PLANTS; ELECTRIC POWER; MINING; SAFETY
- 00057 FLUIDIZED SOLID PARTICLE FUEL. Messer, L.; Wolf, P.L. (to American Minechem Corp.). US Patent 3,775,070. 27 Nov 1973. 4p.
Coal fines dispersed in H₂O and wetted by carbonaceous liquid, such as oil or pitch. COAL FINES; WATER; DISPERSIONS; FLUIDIZATION; PITCHES; OILS
- 00058 COAL PETROGRAPHY: ITS APPLICATION TO COAL CONVERSION. Anon. (Cameron Engineers). *Syn. Fuels*; 11: No. 1, 4/1-4/8(Mar 1974).
COAL; OPTICAL PROPERTIES; PHYSICAL PROPERTIES; SYNTHETIC FUELS; CHEMICAL COMPOSITION; ENERGY CONVERSION; COMBUSTION HEAT; PYROLYSIS; COAL GASIFICATION; COMBUSTION; CARBONIZATION; COKING; OILS; PLANTS; MINERALS; MECHANICAL PROPERTIES; CHEMICAL COMPOSITION
- 2nd Int. Conf. Bit. Coal; 1: 413-438(1928).
Oils from low-temperature carbonization. COAL; OILS; GASEOUS PRODUCTS; LIQUID PRODUCTS; LOW TEMPERATURE; CARBONIZATION
- 00061 TRUMBLE LOW-TEMPERATURE CARBONIZATION PROCESS. Taylor, J.W.E. *Proc. 2nd Int. Conf. Bit. Coal*; 1: 474-484(1928).
Light gasoline product. LIGNITE; SHALES; STEAM; DISTILLATION; CARBONIZATION; GASOLINE
- 00062 LOW-TEMPERATURE CARBONIZATION AND HYDROGENATION OF COALS. Gram, J.F. *Tek. Ukebl.*; 75: 342-5(1928).
COAL; CARBONIZATION; HYDROGENATION; REVIEWS
- 00063 LOW-TEMPERATURE CARBONIZATION. MODERN PRACTICE ON THE COMMERCIAL SCALE. III. Brownlie, D. *J. Soc. Chem. Ind.*; 48: 934-936(1929).
25,000 to 30,000 ft³/ton of low-grade gas. COAL; BUSSEY PROCESS; LOW TEMPERATURE; CARBONIZATION; VERTICAL RETORTS; STEAM; GASEOUS PRODUCTS
- 00064 EVALUATION OF BITUMINOUS COALS FOR GAS MAKING FROM ANALYSIS. Metzger, R. *Brennst.-Chem.*; 10: 237-241(1929).
COAL; BITUMINOUS COAL; CARBONIZATION; CHEMICAL ANALYSIS; GASEOUS PRODUCTS
- 00065 EVALUATION OF GAS COALS BY ANALYSIS. Metzger, R. *Brennst.-Chem.*; 10: 237-241(1929).
Laboratory process for determining gas-making properties of coal. COAL; GASEOUS PRODUCTS; CARBONIZATION
- 00066 CHEMICAL STUDY OF TARS OBTAINED BY LOW-TEMPERATURE COAL CARBONIZATION. Heymans, J.W. *Ann. Assoc. Ing. Sortis Ecoles Speciales Gand*; 19: No. 5, 266-299(1929).
COAL; CARBONIZATION; CHEMICAL COMPOSITION; COAL TAR
- 00067 DEPENDENCE OF YIELD OF BY-PRODUCTS ON WATER CONTENT OF COAL AND CARBONIZING TEMPERATURE. Boernstein, E.; Seelkopf, K. *Brennst.-Chem.*; 10: 357-359(1929).
Ammonia and benzene yields. COAL; CARBONIZATION; AMMONIA; BENZENE; HIGH TEMPERATURE; PRODUCTION; MOISTURE; TEMPERATURE DEPENDENCE
- 00068 INFLUENCE OF INORGANIC CONSTITUENTS IN THE CARBONIZATION AND GASIFICATION OF COAL: THE LIBERATION OF AMMONIA. Eastwood, A.H. *Gas J.*; 192: 745(1930).
Lime, CaCO₃, and Fe oxide. COAL GASIFICATION; COAL; CARBONIZATION; AMMONIA; CALCIUM CARBONATES; IRON OXIDES; CALCIUM OXIDES; HIGH TEMPERATURE; CHEMICAL REACTION KINETICS
- 00069 EFFECT OF ADDITION OF DOLOMITE ON CARBONIZATION AND COMBUSTION OF COAL (SULFUR DISTRIBUTION). Trifonov, I.; Rasheva-Trifonova, E. *Brennst.-Chem.*; 11: 185-188(1930).
COAL; COMBUSTION; CARBONIZATION; DOLOMITE; SULFUR; DISTRIBUTION
- 00070 BEHAVIOR OF COAL DURING CARBONIZATION. I. CHANGE OF MOISTURE-ABSORBING POWER OF COAL BY CARBONIZATION. II. CHANGE OF ELECTRIC CONDUCTIVITY OF COAL BY CARBONIZATION. III. CHANGE OF COMPOSITION OF COAL BY CARBONIZATION. Iki, S. *J. Soc. Chem. Ind., Japan*; 33: 320-321; 321-322; 322-323(1930).
COAL; CARBONIZATION; CHEMICAL PROPERTIES; PHYSICAL PROPERTIES; ANTHRACITE; BITUMINOUS COAL; BROWN COAL; ELECTRIC CONDUCTIVITY
- 00071 INCREASING GAS YIELD BY CRACKING. Giegel, J. *Gaz Woda*; 10: 7-11(1930).
COAL; CRACKING; COKE; CARBONIZATION; GASEOUS
- REFER ALSO TO CITATIONS 404, 654, 734, 754, 1453, 2281, 2503, 2560, 2926, 2927, 3016, 3101, 3140, 3151, 3251, 3336, 3516, 3534, 3563, 3668, 3798, 4257, 4665, 4726, 4981, 5070, 5237, 5771, 5827, 5962, 6041, 6050, 6944, 7047, 7063, 7191, 7210, 7217, 7252
- 00059 EFFECTS OF ORGANIC SUBSTANCE ADDITION TO THE COAL CHARGE ON THE YIELD OF CARBONIZATION PRODUCTS. Morawski, J.; Wasilewski, P. *Koks, Smola, Gaz*; 18: No. 8-9, 234-7(Aug-Sep 1973). (In Polish).
Addition of low temperature tar oil and fuel oil. COAL; CARBONIZATION; COAL TAR OILS; FUEL OILS
- 00060 L AND N PROCESS. Nielsen, H. *Proc.*

Carbonization

- PRODUCTS
- 00072 CARBONIZATION OF BITUMINOUS AND BROWN-COALS IN AN ATMOSPHERE OF GAS UNDER PRESSURE. Fischer, F.; Bahr, T.; Sustmann, H. Brennst.-Chem.; 11: 1-9(1930).
Production of 1080 btu gas. COAL; CARBONIZATION; HIGH TEMPERATURE; MEDIUM PRESSURE; BITUMINOUS COAL; FUEL GAS; PURIFICATION; BROWN COAL
- 00073 HIGH-LOW-TEMPERATURE CARBONIZATION. Wright, H.T. Gas. J.; 195: 32-34(1931).
Description of Bussey process. COAL; CARBONIZATION; BUSSEY PROCESS; HIGH TEMPERATURE
- 00074 AQUEOUS LIQUORS FROM LOW-TEMPERATURE CARBONIZATION OF COAL. II. Morgan, G.T.; Pettet, A.E.J. J. Soc. Chem. Ind.; 50: 72-47(1931).
COAL; CARBONIZATION; PHENOLS; CHEMICAL REACTION YIELD
- 00075 HYDROGEN IN COAL. Eccles, A.; Kenyon, G.H.; McCulloch, A. Fuel in Science and Practice; 10: 4-15(1931).
Chlorination and distillation of coal at 100 to 900°. HYDROGEN; COAL; CHLORINATION; CARBONIZATION; MEDIUM TEMPERATURE; HIGH TEMPERATURE; METHANE
- 00076 CONSTITUTION OF COAL AND ITS CARBONIZATION. Lessing, R. Gas World; 96: 331-3(1932).
Review of solvent extraction. SOLVENT EXTRACTION; COAL; MINERALS; REVIEWS; CHEMICAL COMPOSITION
- 00077 DEVELOPMENT OF DAKOTA LIGNITE. IX. EFFECT OF INORGANIC MATERIALS ON LOW-TEMPERATURE CARBONIZATION OF LIGNITE. Koth, A.W.; Lavine, I. Ind. Eng. Chem.; 25: 328-333(1933).
 $Al_2(SO_4)_3 \cdot 18H_2O$; $MgCl_2 \cdot 6H_2O$; $CaCO_3$; $AlCl_3 \cdot 6H_2O$; $FeCl_3 \cdot 6H_2O$, and humic acid. LIGNITE; CARBONIZATION; ALUMINIUM SULFATES; MAGNESIUM CHLORIDES; CALCIUM CARBONATES; ALUMINIUM CHLORIDES; IRON CHLORIDES; IRON CHLORIDES; GASES; COAL TAR; COAL
- 00078 FORMATION OF METHANE IN THE PROCESS OF CARBONIZING GAS COALS. Travers, M.W. J. Inst. Fuel; 6: 253-254(1933).
Mechanism of formation. METHANE; PRODUCTION; COAL; CARBONIZATION; STEAM; CHEMICAL REACTION KINETICS
- 00079 LOW-TEMPERATURE CARBONIZATION OF COAL IN THE PRESENCE OF JAPANESE ACID CLAY. I. EFFECTS OF ADDITION OF ACID CLAY UPON THE LOW-TEMPERATURE CARBONIZATION OF COAL. Kobayashi, K.; Yamamoto, K.I.; Ishikawa, H. J. Soc. Chem. Ind., Japan; 36: No. Suppl., 427-452(1933).
Oil yields. COAL; CARBONIZATION; CLAYS; OILS; PRODUCTION
- 00080 NEW VIEWS IN COAL CHEMISTRY. II. THE CARBONIZATION PROCESS. Pieters, H.A.J.; Koopmans, H. Het Gas; 53: 346-353; 367-374(1933).
Discussion of theories on mechanism of carbonization. COAL; CARBONIZATION; CHEMICAL REACTION KINETICS
- 00081 LOW-TEMPERATURE CARBONIZATION ASSAY OF SOME CHINESE BITUMINOUS COALS. Hsiao, C.C. Bull. Geol. Survey China; No. 21, 13-44(1933).
Tar-oil and coke yields. COAL; BITUMINOUS COAL; CARBONIZATION; PRODUCTION; COKE; COAL TAR; OILS; COAL GAS; AMMONIA
- 00082 CARBONIZING MATERIALS SUCH AS COAL, OIL SHALE, ETC. Odell, W.W. US Patent
- 1,983,943. 11 Dec 1933.
Air blown through granular layer at carbonizing temperature. CARBONIZATION; OIL SHALES; FLUIDIZATION; EQUIPMENT; DESIGN
- 00083 REPORT ON THE WORK WITH MULTIPLE SYSTEMS OF BORE HOLES (IN UNDERGROUND GASIFICATION) AT AN ANTHRACITE MINE. Kuznetsov, A.S. Podzemnaya Gazifikatsiya Uglei; No. 2, 24-30(1934).
Iron-lined bore holes. COAL GASIFICATION; IN-SITU METHOD; ANTHRACITE; AIR
- 00084 HIGH-TEMPERATURE CARBONIZATION OF COAL. EFFECT OF FREE SPACE ABOVE THE CHARGE ON YIELDS AND PROPERTIES OF GASES AND TARS. Davis, J.D.; Auvil, S. Ind. Eng. Chem.; 27: 459-61(1935).
COAL; CARBONIZATION; HIGH TEMPERATURE; PRODUCTION; GASES; OILS; COAL TAR
- 00085 LOW-TEMPERATURE BITUMINOUS COAL TAR. Naphtali, M. Brennst.-Chem.; 16: 67-72(1935).
Carbonization processes, yields, and uses are described. BITUMINOUS COAL; COAL TAR; CARBONIZATION
- 00086 REPORT OF THE FUEL RESEARCH BOARD FOR THE YEAR ENDED 31ST MARCH 1935 WITH REPORT OF THE DIRECTOR OF FUEL RESEARCH. Hartley, H.; Sinnatt, F.S. Dept. Sci. Ind. Research (Brit.), Fuel Research; 1935: (1935).
Studies on chemistry, preparation for market, carbonization, treatment of tar, lubricating oils, hydrogenation of coal, and pulverized fuels. COAL; REVIEWS; RESEARCH PROGRAMS; COAL TAR; HYDROGENATION; MOLYBDENUM OXIDES; SULFUR; CATALYSTS; LIQUID PRODUCTS; LUBRICATING OILS; TEMPERATURE DEPENDENCE; PRESSURE DEPENDENCE; CARBONIZATION
- 00087 SOME COAL RESEARCHES—THEIR SIGNIFICANCE TO THE COAL INDUSTRY. McCulloch, A. Chem. Ind. (London); 997-1004(1935).
Review of action of solvents, oxidizing agents, and Cl on coal and coal carbonization. COAL; CARBONIZATION; SOLVENTS; OXIDATION; CHLORINE; CHEMICAL REACTIONS; CHLORINATION; SOLVENT EXTRACTION
- 00088 SOME WORKS TESTS OF BENZENE YIELD AND LABORATORY TESTS ON COAL FOR CARBONIZATION. Gibson, H.B. Gas-Wasserfach; 104: No. 2700, 56-9(1936).
BENZENE; PRODUCTION; COKE; COAL; CARBONIZATION
- 00089 GASOLINE FROM THE LOW-TEMPERATURE CARBONIZATION OF ZHURINSK COAL. Ugrumov, M.V. Khim. Tverd. Topl.; 7: 276-81(1936).
Determination of chemical composition of gasoline. GASOLINE; PRODUCTION; CARBONIZATION; COAL; AROMATICS; ALKANES; CYCLOALKANES; CHEMICAL COMPOSITION
- 00090 REPORT OF THE FUEL RESEARCH BOARD FOR THE YEAR ENDED 31ST MARCH 1936 WITH REPORT OF THE DIRECTOR OF FUEL RESEARCH. Hartley, H.; Sinnatt, F.S. Dept. Sci. Ind. Research (Brit.), Fuel Research; 1936: (1936).
Studies on chemistry, preparation for market, carbonization, treatment of tar, lubricating oil, hydrogenation of coal, and steam raising. COAL; REVIEWS; RESEARCH PROGRAMS; COAL TAR; HYDROGENATION; LUBRICATING OILS; COKE; CARBONIZATION; STEAM
- 00091 COAL AND ITS MINERAL MATTER WITH REFERENCE TO CARBONIZATION. Gauger, A.W. Blast Furnace Steel Plant; 24: 310-12, 334, 406-9, 508-10(1936).
Review of mineral constituents of coal and their probable reactions during carbonization of coal (23 references). COAL; CARBONIZATION; REVIEWS

- 00092 LOW-TEMPERATURE CARBONIZATION OF BITUMINOUS COAL AT GAS WORKS. Thau, A. Gas-Wasserfach; 79: 885-91, 912-17(1936).
Description of processes in Germany including Kruff--Lurgi process; Weber process; Hinselman process; Berg process; Otto process. COAL; CARBONIZATION; EQUIPMENT; VERTICAL RETORTS; GERMAN WORK
- 00093 LIQUID FUEL FROM COAL OBTAINED BY LOW-TEMPERATURE CARBONIZATION. Bristow, W.A. J. Inst. Fuel; 10: 43-7(1937).
Carbonization at 600° by Coalite process yields 18 to 20 gal of tar/ton of 36% volatile coal; from tar 3 gal of crude motor spirit is obtained. LIQUID PRODUCTS; SYNTHETIC FUELS; COAL; CARBONIZATION; PRODUCTION; HIGH TEMPERATURE; COALITE PROCESS; COAL TAR
- 00094 GAS INDUSTRY AND THE FUEL PROBLEM. Tindale, H. J. Inst. Eng., Aust.; 9: 313-21(1937).
Carbonization of coal and chemical engineering practices involved in purification, storage, distribution, and utilization of gas. COAL; CARBONIZATION; PURIFICATION; STORAGE; GASES
- 00095 PRINCIPLES OF LOW-TEMPERATURE CARBONIZATION OF COAL-OIL SUSPENSIONS. Blummer, E. Brennst.-Chem.; 18: 454-6(1937).
Synthetic fuel production. COAL; COAL PASTES; OILS; CARBONIZATION; BROWN COAL; COAL TAR; SYNTHETIC FUELS; HYDROGENATION; PRODUCTION
- 00096 LOW-TEMPERATURE CARBONIZATION OF BITUMINOUS COAL IN GERMANY. Jager, H. Gas-Wasserfach; 80: 168-75(1937).
Characteristics of tar and gas products. BITUMINOUS COAL; COAL; CARBONIZATION; COAL GAS; PRODUCTION; COMBUSTION HEAT; GASEOUS PRODUCTS
- 00097 CARBONIZATION OF COAL. Bruckner, H. Chem. Ztg.; 61: 553-64, 649-60, 669-73(1937).
Illustrated description of various low-temperature carbonization processes and discussion of coal-in-oil processes. CARBONIZATION; COAL; COKE; COAL TAR; COAL PASTES
- 00098 MOTOR FUEL. Weissgerber, H.; Schulzke, I.; Weissgerber, U.; Kaffer, H. (to Ges. fur Teerverwertung mbH). German(FRG) Patent 641,321. 27 Jan 1937.
Hydrogenation of benzene from low-temperature carbonization of coal in presence of activated C for 3 hr. at 350° and 250 atm. COAL; CARBONIZATION; BENZINE; PRODUCTION; HYDROGENATION; ACTIVATED CARBON; HIGH TEMPERATURE; HIGH PRESSURE; CATALYSTS
- 00099 LOW-TEMPERATURE CARBONIZATION OF COAL IN CONJUNCTION WITH THE FISCHER--TROPSCHE HYDROCARBON SYNTHESIS PROCESS. Mueller, F. Tech. Mitt. Krupp Tech. Ber.; 6: 47-9(1938).
COAL; CARBONIZATION; FISCHER--TROPSCHE SYNTHESIS; PRODUCTION; HYDROCARBONS; REVIEWS
- 00100 SUPPLYING MOTOR FUELS BY THE LOW-TEMPERATURE CARBONIZATION OF BITUMINOUS COAL. Karsten, W. Asphalt Teer Strassenbautech; 38: 731-3(1938).
Description of general process and products. BITUMINOUS COAL; COAL; CARBONIZATION; PRODUCTION; GASOLINE
- 00101 BEHAVIOR OF ACTIVATED BITUMINOUS COAL AND LOW-TEMPERATURE COKE IN LOW-TEMPERATURE CARBONIZATION AND GASIFICATION IN A CURRENT OF STEAM. Kroger, C.; Melhorn, G. Brennst.-Chem.; 19: 257-62(1938).
BITUMINOUS COAL; COKE; CARBONIZATION; STEAM; LITHIUM OXIDES; POTASSIUM OXIDES; COPPER OXIDES; COBALT OXIDES; CARBONATES; WATER GAS; PRODUCTION; CATALYSTS; COAL; COAL GASIFICATION
- 00102 ALTERNATIVE METHODS OF HIGH-TEMPERATURE CARBONIZATION. Smith, E.W. Gas J.; 225: 358-60(1939).
Use of continuous vertical retorts for production of 525 B.t.u. gas. COAL GASIFICATION; VERTICAL RETORTS; PRODUCTION; FUEL GAS
- 00103 LOW-TEMPERATURE CARBONIZATION OF BITUMINOUS COAL AS A STEP IN A SERIES FOR THE FISCHER--TROPSCHE--RUHRCHEMIE SYNTHESIS. Mueller, F. Brennst.-Chem.; 20: 141-4(1939).
BITUMINOUS COAL; COAL; CARBONIZATION; MEDIUM TEMPERATURE; FISCHER--TROPSCHE SYNTHESIS
- 00104 EFFECT OF PRESSURE AND TEMPERATURE UPON THE CHARACTERISTICS OF TARS OBTAINED IN THE LOW-TEMPERATURE CARBONIZATION OF BROWN COAL UNDER GAS PRESSURE. Sustmann, H.; Ziesecke, K.-H. Brennst.-Chem.; 21: 61-8(1940).
COAL; BROWN COAL; CARBONIZATION; HIGH TEMPERATURE; MEDIUM PRESSURE; PRESSURE DEPENDENCE; OILS; GASEOUS PRODUCTS; TEMPERATURE DEPENDENCE; ALKENES; PARAFFIN; NAPHTHALENE
- 00105 COMPOSITION OF TARS OBTAINED IN THE LOW-TEMPERATURE CARBONIZATION OF BITUMINOUS COAL UNDER GAS PRESSURE. Sustmann, H.; Ziesecke, K.H. Brennst.-Chem.; 21: 49-56(1940).
BITUMINOUS COAL; COAL; CARBONIZATION; PRODUCTION; TAR; MEDIUM PRESSURE; PRESSURE DEPENDENCE; OILS; PHENOLS
- 00106 ANNUAL REPORT OF RESEARCH AND TECHNOLOGIC WORK ON COAL, FISCAL YEAR 1939. Fieldner, A.C.; Brewer, R.E. U. S. Bur. Mines Circ.; 7105: 59p.(1940).
REVIEWS; COAL; CARBONIZATION; HYDROGENATION; PETROLOGY; PHYSICAL PROPERTIES
- 00107 EFFECT OF INCREASED GAS PRESSURE UPON THE LOW-TEMPERATURE CARBONIZATION OF BITUMINOUS COALS. Sustmann, H.; Ziesecke, K.H. Brennst.-Chem.; 21: 37-42(1940).
BITUMINOUS COAL; COAL; CARBONIZATION; TEMPERATURE DEPENDENCE; PRESSURE DEPENDENCE; HIGH TEMPERATURE; MEDIUM PRESSURE; GASEOUS PRODUCTS
- 00108 GAS FROM LOW-TEMPERATURE CARBONIZATION OF BITUMINOUS COAL, ITS CHARACTERISTICS, USE, AND FURTHER TREATMENT. Pilz, H. Gas-Wasserfach; 85: 321-7(1942).
COAL GASIFICATION; CARBONIZATION; BITUMINOUS COAL; COAL
- 00109 PRIMARY GASEOUS PRODUCTS OF CARBONIZATION. Bolton, K.; Cullingworth, J.E.; Ghosh, B.P.; Cobb, J.W. J. Chem. Soc., A; 252-63(1942).
COAL; CARBONIZATION; GASEOUS PRODUCTS; LIQUID PRODUCTS; HIGH TEMPERATURE; VERY HIGH TEMPERATURE; WATER GAS; CARBON MONOXIDE; METHANE; CELLULOSE; ANTHRACITE; COKE; BAKELITE
- 00110 OBTAINING FUEL FROM COAL. Rosendahl, F. Allgem. Del-u. Fett-Ztg.; 39: 23-7, 61-5, 143-7(1942).
COAL; CARBONIZATION; SOLVENT EXTRACTION; HYDROGENATION; PRODUCTION; HYDROCARBONS; REVIEWS
- 00111 REFINING OF LIGHT OIL FROM LOW-TEMPERATURE CARBONIZATION OF BROWN COAL BY THE ROSTIN-D.C.G.G. PROCESS. Alwin, E. Braunkohle; 41: 449-53(1942).
BROWN COAL; COAL TAR OILS; REFINING; CARBONIZATION; IRON ORES; HYDROGEN; GASOLINE; COAL
- 00112 PRESENT STATUS OF LOW-TEMPERATURE COKING IN GERMANY AND ITS RELATION TO THE GERMAN ENERGY SITUATION. Demann, W. Gas-Wasserfach; 85: 375-81(1942).
Review with 52 references. GERMAN WORK; COAL TAR; CARBONIZATION; SYNTHETIC FUELS; PRODUCTION; COAL

- 00113 WORKING OF THE WESTVERTICAL SYSTEM. Gas World; 117: 560-8(1942).
Yielding 80.53 therms of stripped gas and 3.04 gal. of light oil for 3.28 tons of coal. COAL; CARBONIZATION; PRODUCTION; FUEL GAS; OILS
- 00114 INDIAN COALS. VIII. LOW-TEMPERATURE CARBONIZATION. Das, B.B.; Banerjee, S.M. J. Indian Chem. Soc.; 5: 157-64(1942).
Liquid products of distillation at 500-550°. COAL; DISTILLATION; HIGH TEMPERATURE; LIQUID PRODUCTS; SYNTHETIC FUELS
- 00115 LOW-TEMPERATURE CARBONIZATION OF BITUMINOUS COAL FOR THE PRODUCTION OF SOLID, LIQUID, AND GASEOUS FUELS. Thau, A. Brennstoff-u. Waermewirt.; 24: 7-12, 26-9, 40(1942).
Properties and uses of low-temperature tar, gasoline, gas, and liquefied gas. BITUMINOUS COAL; COAL; CARBONIZATION; LIQUID PRODUCTS; FUEL GAS; OILS; LURGI PROCESS; SYNTHETIC FUELS; PRODUCTION
- 00116 EXPERIMENTAL INVESTIGATION OF THE INFLUENCE OF PRESSURE ON COAL CARBONIZATION WITH THE GOAL OF AN INCREASE IN YIELD. Machat, R. J. Usines Gaz; 67: 76-80(1943).
COAL; COMBUSTION HEAT; PRESSURE DEPENDENCE; COAL GAS; PRODUCTION
- 00117 LOW-TEMPERATURE CARBONIZATION. Spencer, W.D. Petrol. Times; 7: 34-6, 39(1944).
Text is chiefly concerned with various types of retorts. COAL; CARBONIZATION; COAL TAR; PRODUCTION
- 00118 HIGH-TEMPERATURE CARBONIZATION. Spencer, W.D. Petroleum (London); 7: 135-9(1944).
Review of existing position. COAL; CARBONIZATION; PRODUCTION; BENZENE
- 00119 PRODUCTS OF CARBONIZATION. Cobb, J.W. Fuel; 23: 121-7(1944).
100° intervals up to 1200°. COAL; CARBONIZATION; METHANE; PRODUCTION; TEMPERATURE DEPENDENCE; HIGH TEMPERATURE
- 00120 LIGHT-OIL RECOVERY IN THE LOW-TEMPERATURE CARBONIZATION OF BROWN COAL. Jahn, A. Braunkohle; 43: No. 11/12, 96-102(1944).
COAL; BROWN COAL; OILS; PRODUCTION
- 00121 MODERN METHODS OF CARBONIZATION. Gibson, J.W. (Henry Balfour and Co., Ltd., Leven, Gt. Brit.). Gas J.; 246: 884-5(1945).
Coal was carbonized to a gas; yield of 19,300 ft³ of 425 ETU gas/ton. CARBONIZATION; COAL GASIFICATION; COAL
- 00122 PHYSICAL AND CHEMICAL REACTIONS OF CARBONIZATION. Biddulph-Smith, T. Gas J.; 246: 56, 59-60, 65-6, 69(1945).
3000 ft³ gas/tar with heating value of 700 to 800 ETU and oil yield double that of other processes. COAL; CARBONIZATION; GASEOUS PRODUCTS; LIQUID PRODUCTS; FUEL GAS; PRODUCTION; OILS
- 00123 LOW-TEMPERATURE CARBONIZATION. Georges, P. Ann. Mines, Mem.; 136: No. 6, 45-83(1947).
Review; economics. COAL; CARBONIZATION; ECONOMICS; REVIEWS
- 00124 COAL, SHALE, PEAT, AND THEIR PRODUCTS IN 1947. II. LOW- AND MEDIUM-TEMPERATURE CARBONIZATION AND OTHER SUBSTITUTE FUELS. Whitmore, R.L.; Eveson, G.F. (Univ. of Birmingham, Engl.). Revs. Petroleum Technol.; 9: 263-77(1947).
Review; 119 references. COAL; CARBONIZATION; SYNTHETIC FUELS; PRODUCTION; PEAT; SHALES
- 00125 COAL CARBONIZATION, TAR REFINING, AND COAL GASIFICATION. Pursglove, J., Jr. (Colo. School of Mines). Mines Mag.; 38: No. 12, 75-7(1948).
Descriptive. COAL; CARBONIZATION; COAL TAR; REFINING; COAL GASIFICATION
- 00126 INFLUENCE OF VARIOUS FACTORS ON THE YIELD OF BY-PRODUCTS IN THE LABORATORY CARBONIZATION OF COAL AT HIGH AND LOW TEMPERATURES. Tomkow, K. (Zaklad Chemicznej Przerobki Wegla, Biskupice, Poland). Prace Badawcze Głownego Inst. Gornictwa (Katowice), Komun.; No. 68, 12p.(1950).
COAL; CRACKING; HIGH TEMPERATURE; MEDIUM TEMPERATURE; TEMPERATURE DEPENDENCE; PRODUCTION; BENZENE; COAL TAR; STEAM
- 00127 PROGRESS IN COAL TECHNOLOGY. CARBONIZATION. Lang, W.A. (Research Council of Alberta, Edmonton, Can.). Trans. Can. Inst. Mining Met.; 54: No. 471, 472-7(1951).
Review of high-temperature and low-temperature carbonization; 62 references. COAL; CARBONIZATION; REVIEWS
- 00128 COAL TAR. Nadziakiewicz, J. Przem. Chem.; 30: 660-6(1951).
Effect of carbonization temperature on yield and properties of coal tar. COAL TAR; PRODUCTION; CARBONIZATION; COAL; TEMPERATURE DEPENDENCE
- 00129 LOW-TEMPERATURE CARBONIZATION OF BITUMINOUS COAL. Lorenzen, G. (Arbeitsgemeinschaft Dr. C. Otto and Co.-Brennstoff-Technik GmbH, Bochum-Essen, Ger.). Brennst.-Chem.; 32: 324-31(1951).
BITUMINOUS COAL; COAL; CARBONIZATION; LIQUID PRODUCTS
- 00130 EXPANSION BEHAVIOR OF COAL DURING CARBONIZATION. Brysch, G.P.; Ball, W.E. (Inst. Gas Technol., Chicago). Inst. Gas Technol. Research Bull.; No. 11, 60p.(1951).
211 references. COAL; CARBONIZATION; REVIEWS
- 00131 CARBONIZATION AND GASIFICATION OF BITUMINOUS COAL, BROWN COAL, PEAT, OIL, AND SIMILAR DEPOSITS. Bruch, H. German(FRG) Patent 804,022. 16 Apr 1951.
Use of boreholes for more uniform underground gasification of fuels; use of refractory linings in tubes. COAL GASIFICATION; BITUMINOUS COAL; BROWN COAL; IN-SITU METHOD
- 00132 CARBONIZATION OF COAL AND SIMULTANEOUS PRODUCTION OF COMBUSTIBLE GAS. (to Norsk-Hydro-Elektrisk Kvaestofaktieselskab). Norwegian Patent 75,000. 18 Jun 1951.
Description of electric-resistance type furnace described. COAL GAS; PRODUCTION; EQUIPMENT; ELECTRIC FURNACES; COAL; CARBONIZATION
- 00133 UNDERGROUND CARBONIZATION AND GASIFICATION OF FUELS. Couderc, J.; Rohrbach, R.; Puff, W. (to Kohle-UI-Union von Busse K. G.). German(FRG) Patent 812,573. 3 Sep 1951.
Installation of suction mains in the bottom of the coal bed. COAL GASIFICATION; IN-SITU METHOD
- 00134 RECENT RESEARCHES ON AND DEVELOPMENTS IN THE CARBONIZATION OF COAL. Jones, W.I. Gas World; 135: No. 3520, 15-18(1952).
COAL; CARBONIZATION
- 00135 COAL CARBONIZATION AND GASIFICATION. Kalbach, J.C. (to Hydrocarbon Research, Inc.). US Patent 2,654,198. 7 Apr 1953.
Production of coal gas and water gas. COAL

- GASIFICATION;FLUIDIZED BED;OXYGEN;STEAM;
PRODUCTION;COAL GAS;WATER GAS
- 00136 SEPARATION OF GASES AND SOLIDS FROM A
FLUIDIZED BED. Leshner, C.E. (to Pittsburgh
Consolidation Coal Co.). US Patent 2,654,699.
6 Oct 1953.
Reaction of steam with coal at 700 to
1400°F. FLUIDIZED BED;EQUIPMENT;GASES;SOLIDS;
SEPARATION PROCESSES;STEAM;COAL;CARBONIZATION;
CHEMICAL REACTIONS
- 00137 UNDERGROUND ELECTROCARBONIZATION OF
COAL AND RELATED HYDROCARBONS. Cheasley, T.C.;
Forrester, J.D.; Sarapuu, E. (Sinclair Coal
Co., Kansas City, MO). Trans. Am. Inst.
Mining Met. Engrs. Tech. Pub.; 199: No. 3873-
F, 908-15(1954).
IN-SITU METHOD;COAL;ELECTROCARBONIZATION;
GASIFICATION;OILS
- 00138 UTILIZATION OF THE CHEMICAL ENERGY OF
SOLID FUELS. Shishakov, N. Conf. Intern.
Gazeification Integrale Houille Extraite, Liege;
265-8(1954). (In English).
Low-calorific gas. COAL;PEAT;CARBONIZATION;
COKE;COAL GAS;EQUIPMENT;COMBUSTION HEAT;LOW BTU
GAS;PRODUCTION
- 00139 FUEL RESEARCH IN INDIA. Coke and Gas;
17: 363-5(1955).
Review of research and development during
1954. COAL;CARBONIZATION;COAL TAR;FISCHER-
TROPSCHE SYNTHESIS
- 00140 DEVELOPMENT OF LOW-TEMPERATURE
CARBONIZATION OF BROWN COAL. Munderloh, H.
Braunkohle; 7: 441-6(1955).
BROWN COAL;CARBONIZATION;GASIFICATION;COKE;
SHALES;DISTILLATION;COAL;REVIEWS
- 00141 PRETREATMENT OF COAL BEFORE
CARBONIZATION. Parker, A. 6th Intern. Gas
Conf., New York; No. IGU/23-55, 20p.(1955).
Review with 80 references. COAL;
CARBONIZATION;REVIEWS
- 00142 COMPLEX UTILIZATION OF UKRAINIAN BROWN
COALS. XII. LOW-TEMPERATURE CARBONIZATION OF
THE PRELIMINARY EXTRACTED COALS. Kuznetsov,
V.I.; Bobrova, A.A. Ukr. Khim. Zh.; 21: 800-
3(1955).
Carbonization in Al retort before and after
extraction by organic solvents; most effective
solvents were alcohol-benzene and
dichloroethane-alcohol. BROWN COAL;
CARBONIZATION;COAL;SOLVENT EXTRACTION;ETHANOL;
BENZENE;CHLORINATED ALIPHATIC HYDROCARBONS;USSR
- 00143 COMPLEX UTILIZATION OF UKRAINIAN BROWN
COALS. XIII. UKRAINIAN BROWN-COAL TARS
RECOVERED AT LOW-TEMPERATURE CARBONIZATION WITH
SOLID HEATING MEDIUM. Kuznetsov, V.I.;
Govorova, R.P.; Fadeicheva, A.G.; Kigel, T.B.;
Chernykh, M.K. Ukr. Khim. Zh.; 21: 804-
9(1955).
USSR;BROWN COAL;COAL TAR;COAL;CARBONIZATION;
PRODUCTION
- 00144 CARBONIZATION AND GASIFICATION.
CLASSIFICATION OF APPARATUS FOR CARBONIZATION
AND GASIFICATION. Shimomura, A. (Japan Gas
Assoc., Tokyo). Netsu-Kanri; 8: No. 9, 69-
73(1956).
CARBONIZATION;GASIFICATION;EQUIPMENT
- 00145 CARBONIZATION AND GASIFICATION.
PRESENT AND FUTURE OF CARBONIZATION INDUSTRY.
Shimura, T. (Fuji Iron and Steel Co. Ltd.,
Tokyo). Netsu-Kanri; 8: No. 9, 2-3(1956).
CARBONIZATION;GASIFICATION
- 00146 CARBONIZATION AND GASIFICATION.
INSTALLATIONS FOR CARBONIZATION AND
- GASIFICATION. Kunii, D. (Univ. Tokyo).
Netsu-Kanri; 8: No. 9, 57-68(1956).
GASIFICATION;CARBONIZATION;INDUSTRIAL PLANTS
- 00147 YIELDS IN RAPID COAL CARBONIZATION.
Peters, W. (Ruhrgas, Essen, Ger.). Gas-
Wasserfach; 99: 1045-54(1958).
Mixture of finely divided coal with N forced
into carbonization chamber at 500-900°; tar
yield higher than predicted but gas yield
lower. COAL;CARBONIZATION;POWDERS
- 00148 CARBONIZATION AND GASIFICATION.
Shimomura, A. (Japan Gas Assoc., Tokyo).
Nenryo Kyokai-shi; 37: 573-8(1958).
Survey of recent (1958) developments; 18
references. CARBONIZATION;GASIFICATION;JAPAN
- 00149 COAL CARBONIZATION - COKE OVEN
PRACTICE. Woods, C.W. (Simon-Carves, Ltd.,
Stockport, Engl.). J. Inst. Fuel; 31: 541-
7(1958).
Review with 39 references. COAL;
CARBONIZATION
- 00150 FORMATION OF COAL TAR DURING THE HIGH-
TEMPERATURE CARBONIZATION OF BITUMINOUS COAL.
Rosendahl, F. Gas- Wasserfach; 99: 2-
12(1958).
Review with 47 references. COAL TAR;COAL;
CARBONIZATION;PRODUCTION
- 00151 LOW-TEMPERATURE FLUIDIZED CARBONIZATION
IN RELATION TO ENERGY PRODUCTION. Moreland,
C. (Research Council Alberta, Edmonton).
Can. Mining Met. Bull.; 51: 415-19(1958).
Carbonization plant for Alberta
subbituminous coals; 20 references.
CARBONIZATION;FLUIDIZATION;ENERGY;PRODUCTION;
PILOT PLANTS;COAL;CHARS;COAL TAR
- 00152 CARBONIZATION OF COAL IN RECTANGULAR
GAS-COMBUSTION RETORT FOR THE PRODUCTION OF
SMALL BLAST-FURNACE COKE, LIQUID FUELS, AND
GAS. Anon. Jan Liao Hsueh Pao; 4: 99-
102(1959).
Yield as high as 90%. COAL;CARBONIZATION;
SYNTHETIC FUELS;PRODUCTION;CHINA;GASOLINE;
DIESEL FUELS;PHENOL;WAXES;PITCHES
- 00153 CURRENT TRENDS IN THE AMERICAN COAL TAR
INDUSTRY. Fowler, W.A. Industrial Chemist;
35: No. 409, 120-3(1959). (In English).
Prospects for production of chemicals by
coal hydrogenation and hydrogen production from
coke-oven gas. USA;COAL TAR;COAL;CARBONIZATION;
AROMATICS;PHENOLS;HYDROGEN;PRODUCTION
- 00154 CONTINUOUS PROCESS FOR LOW-TEMPERATURE
FLUIDIZED CARBONIZATION OF COAL. Mukherjee,
S.K.; Sen, M.; Das Gupta, A.K.; Lahiri, A.
(Central Fuel Research Inst., Jealgora). J.
Sci. Ind. Res.; 19A: 611-15(1960).
Description of equipment. CARBONIZATION;COAL;
FLUIDIZATION;PILOT PLANTS;INDIA;EQUIPMENT;COAL
TAR;PRODUCTION;COAL GAS
- 00155 COAL CARBONIZATION. Wood, C.W.
Chem. Process Eng.; 43: 214-19(1962).
Review with 21 references. COAL;
CARBONIZATION;REVIEWS
- 00156 SYMPOSIUM ON LOW-TEMPERATURE
CARBONIZATION OF NONCAKING COALS AND LIGNITES,
AND BRIQUETTING OF COAL FINES. II. Vahrman,
M. Coke Gas; 24: 207-11(1962).
Review with 37 references. CARBONIZATION;
COAL;REVIEWS;INDIA
- 00157 ETHYLENE AND COAL GAS FROM THE
CARBONIZATION OF BITUMINOUS COALS OR LIGNITE BY
INJECTION OF LIQUID AND GASEOUS HYDROCARBONS
INTO COKE OVENS. Schmidt, J. (to Firma Carl
Still). German(FRG) Patent 1,131,183. 14

- Jun 1962.
ETHYLENE; COAL GAS; BITUMINOUS COAL; COAL;
CARBONIZATION; HYDROCARBONS; LIQUIDS; GASES;
EQUIPMENT; HYDROGEN SULFIDES; REMOVAL;
DESULFURIZATION; PRODUCTION
- 00158 FORMATION OF LOW-VOLATILE CHAR AND
SYNTHESIS GASES BY THE CARBONIZATION OF COAL.
Savage, R.L. (to North American Coal Corp.).
US Patent 3,061,524. 30 Oct 1962.
No substantial amount of tar produced;
pressures up to 1000 psi. CHARS; PRODUCTION;
SYNTHESIS GAS; COAL; CARBONIZATION; STEAM
- 00159 DEVELOPMENT OF COAL CARBONIZATION
TECHNOLOGY IN INDIA. Das Gupta, N.N.; Bose,
B.N. FRI (Fuel Res. Inst.) News (Bihar,
India); 13: No. 1-2, 2-20(1963). (In
English).
89 references. COAL; CARBONIZATION; INDIA
- 00160 CARBONIZATION OF SOLID FUELS AT LOW AND
MEDIUM TEMPERATURES. Simonovitch, M. Low-
Temp. Carbonization Non-Caking Coals Lignites
Briquetts. Coal Fines, Symp. Hyderabad, India,
1961; 1: 331-9(1963).
CARBONIZATION; REVIEWS; SOLIDS; FOSSIL FUELS
- 00161 CONTINUOUS DISTILLATION OF CONDENSABLE
VOLATILES. Huntington, M.G. US Patent
3,107,985. 22 Oct 1965. Filed date 8 Jul
1960. (In English).
Low-temperature carbonization, hydrogenation
of volatiles, and gasification of char;
equipment. COAL; CARBONIZATION; HYDROGENATION;
CHARS; GASIFICATION; COAL GAS; EQUIPMENT
- 00162 PRESSURE CARBONIZATION OF A HIGH-
VOLATILE A BITUMINOUS COAL TO PRODUCE HIGH-BTU
GAS. Hiteshue, R.W.; Friedmann, S.;
Dobransky, P.; Madden, R. (U. S. Bur. of
Mines, Pittsburgh, PA). U. S. Bur. Mines,
Rept. Invest.; 6424: No. 4, 20p.(1964).
Coal carbonized in closed system at 600° and
40-1200 psig; production of tars and oils
eliminated by retaining volatiles within system;
increase in pressure gave higher heating values
and lower production. COAL; CARBONIZATION; HIGH
BTU GAS; PRODUCTION; CHARS; HIGH TEMPERATURE;
BITUMINOUS COAL; PRESSURE DEPENDENCE; COMBUSTION
HEAT
- 00163 ELECTRICITY - A BY-PRODUCT OF THE LOW-
TEMPERATURE CARBONIZATION OF COAL. Rao, G.R.
(Natl. Council Appl. Econ. Res., New Delhi).
Low-Temp. Carbonization Non-Caking Coals
Lignites Briquetts. Coal Fines, Symp. Hyderabad,
India, 1961; 2: 307-10(1964).
Use of char from low-temperature
carbonization of coal proposed for production of
electricity. COAL; CARBONIZATION; ELECTRIC POWER;
PRODUCTION; CHARS
- 00164 CARBONIZATION BY FLUIDIZATION FOR THE
MANUFACTURE OF PULVERIZED COKE, GAS, AND TAR.
Charbonnages de France. French Patent
1,367,489. 24 Jul 1964.
Wet coal or lignite used. FLUIDIZED BED;
CARBONIZATION; COKE; GASES; COAL TAR; PRODUCTION;
COAL; AIR
- 00165 COAL CARBONIZATION IN THE UNITED
STATES, 1900-62. Sheridan, E.T.; DeCarlo,
J.A. Pittsburgh; Mines Bureau, U. S. Dept. of
Interior (1965). 86p.
COAL; CARBONIZATION; USA
- 00166 COAL UTILIZATION IN BROWN COAL
(LIGNITE) COUNTRIES IN CONNECTION WITH
DEVELOPMENTS IN THE FUEL ECONOMY. Rammier, E.
Freiberger Forschungsh.; A364: 5-30(1966).
(In German).
COAL; BROWN COAL; ELECTRIC POWER;
MAGNETOHYDRODYNAMICS; COAL GASIFICATION;
- CARBONIZATION; ECONOMICS; PRODUCTION
- 00167 Zur Frage der Schwelung von Steinkohlen
und der Möglichkeiten der Verwertung der
Schwelprodukte. (ON THE QUESTION OF LOW-
TEMPERATURE CARBONIZATION OF COAL AND THE
POSSIBILITIES OF UTILIZATION OF LOW-TEMPERATURE-
CARBONIZATION PRODUCTS). Fuchs, W.; Glaser,
F.; Fell, B.; Asinger, F. Westdeuts; Verlag:
Upladen (1966). 185p. 64.20 DM.
COAL; CARBONIZATION
- 00168 CARBONIZATION AND GASIFICATION OF
CARBONACEOUS SOLIDS. (to Lummus Co.).
British Patent 1,017,527. 19 Jan 1966.
Carbonaceous materials carbonized in
fluidized bed to remove part of volatiles.
CARBONACEOUS MATERIALS; GASIFICATION;
CARBONIZATION; COAL GASIFICATION; COKE; OIL SHALES;
TAR SANDS; FLUIDIZED BED
- 00169 SMALL CONTINUOUS UNIT FOR FLUIDIZED
COAL CARBONIZATION. Struck, R.T.; Dudd, P.J.;
Gorin, E. (Res. Div. Consolidation Coal Co.,
Library, PA). Ind. Eng. Chem., Prod. Res.
Develop.; 6: No. 1, 85-8(1967). (In
English).
17 references. EQUIPMENT; COAL; FLUIDIZATION;
CARBONIZATION
- 00170 COAL AND CHEMICALS. Morley, R.J.
Mining Electrical and Mechanical Engineer; 48:
No. 561, 141-5(1967). (In English).
Review of chemical products obtained from
coal by carbonization, hydrogenation, and other
treatment. COAL; CARBONIZATION; HYDROGENATION;
REVIEWS; ORGANIC COMPOUNDS; PRODUCTION
- 00171 PRESSURIZED CARBONIZATION OF PULVERIZED
COAL. Elliott, D.E.; Myerscough, P.B.;
Kington, J. (Marchwood Eng. Labs.,
Southampton, Engl.). Chem. Eng. (London); No.
205, CE12-CE20(1967). (In English).
Pulverized coal carbonization in fluidized
bed reactor at 2-10 atm and up to 700°; effect
of pressure on yield of volatile matter was
small. COAL; POWDERS; CARBONIZATION; FLUIDIZED BED;
MEDIUM PRESSURE; HIGH TEMPERATURE
- 00172 LITERATURE OF THE COAL CARBONIZATION
INDUSTRY. Thiessen, G. (Res. Dep., Koppers
Co., Inc., Monroeville, PA). Advan. Chem.
Ser.; No. 78, 526-49(1968). (In English).
Reviews, monographs, and abstract
collections stressed. COAL; CARBONIZATION;
REVIEWS
- 00173 CHEMICAL PRODUCTS OF THE COMMERCIAL
CARBONIZATION OF GAS COAL. Zaichenko, V.M.;
Grinberg, A.M.; Vorobev, D.D.; Shevchenko, A.I.;
Sergeev, A.P.; Komarovskii, M.S.; Vasyutin,
L.L.; Guskov, P.G. (Avdeevka Coke and
Chemical Works, Soviet Union). Coke Chem
(USSR); No. 7, 22-6(1969).
COAL; PRODUCTION; BENZENE; TAR; CARBONIZATION;
COAL GAS
- 00174 TAR, GAS, AND CHAR FROM COKING AND
NONCOKING COAL OR LIGNITE. Mansfield, V.
(to Peabody Coal Co.). US Patent 3,434,931.
25 Mar 1969.
Preparation of clean coal gas. COAL; LIGNITE;
CHARS; COAL TAR; COAL GAS; EQUIPMENT; CARBONIZATION;
PURIFICATION; PRODUCTION
- 00175 PRODUCTION OF GAS CONTAINING HIGH
PERCENTAGES OF HYDROGEN AND CARBON MONOXIDE.
(to Dr. C. Otto und Co. GmbH). British Patent
1,155,584. 18 Jun 1969.
H sulfide removed by passing gas over FeO or
ZnO. COAL; CARBONIZATION; HYDROGEN; CARBON
MONOXIDE; PRODUCTION; EQUIPMENT; HYDROGEN SULFIDES;
REMOVAL; IRON OXIDES; ZINC OXIDES; COAL GAS;
DESULFURIZATION

- 00176 (BM-RI--7322) FLUIDIZED-BED LOW-TEMPERATURE CARBONIZATION OF BITUMINOUS COAL AND THERMAL CRACKING OF THE TAR VAPORS. Sanner, W.S.; Naugle, B.W.; Wolfson, D.E. Nov 1969. 19p.
COAL; CARBONIZATION; FLUIDIZED BED; COAL TAR; PITCHES; ALKENES; PRODUCTION; CRACKING; TEMPERATURE DEPENDENCE; OILS
- 00177 THERMAL CRACKING OF TARS AND VOLATILE MATTER FROM COAL CARBONIZATION. Hesp, W.R.; Waters, P.L. (Div. Miner. Chem., C.S.I.R.O., Sydney, Aust.). Ind. Eng. Chem., Prod. Res. Develop.; 9: No. 2, 194-202(1970).
Cracking at 500-1000°. COAL; CARBONIZATION; COAL TAR; CRACKING; FLUIDIZED BED; HIGH TEMPERATURE; CHEMICAL REACTION KINETICS; FUEL GAS; PRODUCTION
- 00178 DEVOLATILIZATION OF LARGE COAL PARTICLES AS APPLIED TO SZIKLAROZINEK GASIFIERS. Vermes, G.; Carfagno, S.P.; Wachtell, G.P. (Westinghouse Electric Corp., Philadelphia, PA). Proc. Amer. Power Conf.; 32: 435-44(21 Apr 1970).
Carbonizing of coal and gasification of resultant coke. COAL; CARBONIZATION; COKE; GASIFICATION; COAL GASIFICATION
- 00179 (BM-RI--7400) COAL CARBONIZATION STUDIES: ALTERING COMPOSITION AND YIELD OF VOLATILE PRODUCTS BY INCREASING THE FREE SPACE ABOVE THE CHARGE. Ortuglio, C.; Walters, J.G.; Wolfson, D.E. Jun 1970. 15p. (PB--192304). CFSTI \$3.00.
PRODUCTION; COAL GAS; COAL TAR; OILS; ALKANES; ALKENES; AROMATICS; CARBONIZATION; COAL
- 00180 (PB--204 132) PREDICTION OF LOW-TEMPERATURE CARBONIZATION PROPERTIES OF COAL IN ADVANCE OF MINING. REPORT OF INVESTIGATIONS. Gomez, M.; Donaven, D.J. (Bureau of Mines, Washington, DC). 1971. 94p.p. (BM-RI--7561). NTIS \$3.00, \$0.95 (MF).
COAL; CARBONIZATION; DATA
- 00181 COAL CARBONIZATION. Waters, P.L. (Australia). Coal Res. CSIRO; No. 45, 25-33(1971). (In English).
Review with 7 references. COAL; CARBONIZATION; REVIEWS
- 00182 LIQUID FUELS FROM COAL, 1972. Goldman, G.K. Chemical process review No. 57. Park Ridge, NJ; Noyes Data Corporation (1972). 233p. \$36.00.
Collection of 101 patents in U.S.. PATENTS; COAL; GASOLINE; CHEMICAL PROPERTIES; HYDROGENATION; CONVERSION; CARBONIZATION; PYROLYSIS; CHEMICAL REACTIONS; ECONOMICS; ENERGY SOURCES; SOLVENT EXTRACTION
- 00183 DEVELOPMENT OF A METHOD FOR STABILIZING THE TAR FROM SOFT COAL HIGH TEMPERATURE COKING. Helling, S.; Eckhardt, H. Freiburger Forschungsh. A; 507: 47-59(1972). (In German).
Ammonia-gassing method. COAL; CARBONIZATION; PRODUCTION; COKE; COAL TAR OILS; STABILITY; AMMONIA; FUEL OILS
- 00184 REACTIVITY OF HEAT TREATED COALS IN AIR. PAPER NO. 19. Jenkins, R.G.; Nandi, S.P.; Walker, P.L., Jr. (Dept. Material Sciences, Pennsylvania State Univ., Univ. Park, PA). American Chemical Society, Division of Fuel Chemistry. 163rd ACS National Meeting, Boston, Massachusetts, Apr 10-13, 1972. Washington, DC; Amer. Chem. Soc., Div. Fuel Chem. (1972).
From 163. ACS National Meeting; Boston, MA
- (10 Apr-13 Apr 1972).
Effects of coal rank on reactivity. COAL; CARBONIZATION; CHARS; COAL RANK; CHEMICAL REACTIONS; AIR
- 00185 DECOMPOSITION OF VOLATILE PRODUCTS OF THE LOW-TEMPERATURE CARBONIZATION OF COAL. Rao, K.R.; Rao, K.S.; Vaidyeswaran, R. (Reg. Res. Lab., Hyderabad, India). Erdoel Kohle, Erdgas, Petrochem.; 25: No. 4, 191-5(1972). (In German).
Laboratory scale experiments; carbonization of high-volatile noncaking coal at 400-600°; gases obtained at 500° yielded products at 700° with maximum hydrocarbon content; addition of steam over activated carbon promoted formation of hydrocarbons. COAL; CARBONIZATION; HYDROCARBONS; PRODUCTION; HIGH TEMPERATURE; STEAM
- 00186 CHEMICAL INDUSTRIES BASED ON COAL CARBONISATION BY-PRODUCTS. Nair, C.S.B. J. Inst. Eng. (India); 53: No. 2, Pt. CH, 62-71(1973). (In English).
Status and potential of industry in India. COAL; CARBONIZATION; INDIA
- 00187 LOW SULPHUR FUEL BY PRESSURIZED ENTRAINMENT CARBONISATION OF COAL. Beet, R.J.; Roder, M.M. (US Bur. Mines). Advan. Chem. Ser.; 127: 121-34(1973).
COAL; CARBONIZATION
- 00188 CARBONIZATION AND HYDROGENATION OF COAL. Dryden, I.G.C. New York; UNIDO, United Nations (1973). 137p.
Monograph intended to assist under-developed countries considering the establishment of coal-based industry. COAL; CARBONIZATION; HYDROGENATION; MANUALS
- 00189 CARBONIZATION AND HYDROGENATION OF COAL. New York; United Nations (1973). 146p. \$3.00.
COAL; CARBONIZATION; HYDROGENATION; ECONOMICS; COKE; CHARS; OILS; BERGIUS PROCESS; CAPITAL; DESIGN; PLANNING; ENERGY SOURCES; PERSONNEL; FISCHER PROCESS; SYNTHETIC FUELS; COAL LIQUEFACTION
- 00190 LOW SULFUR FUEL BY PRESSURIZED ENTRAINMENT CARBONIZATION OF COAL. Belt, R.J.; Roder, M.M. (Morgantown Energy Res. Cent., Bur. Mines, Morgantown, WV). Advan. Chem. Ser.; 127: 121-34(1973).
Pressure carbonization at 1900°F and 400 psig mathematical model useful in predicting S content of chars. COAL; CARBONIZATION; SULFUR; REMOVAL; CHARS; VERY HIGH TEMPERATURE; PRODUCTION; DESULFURIZATION; FUEL GAS
- 00191 FORMATION OF ANISOTROPIC MESOPHASE FROM VARIOUS CARBONACEOUS MATERIALS IN EARLY STAGES OF CARBONIZATION. Sanada, Y.; Furuta, T.; Kimura, H.; Honda, H. (National Research Inst. for Pollution and Resources, Kawaguchi, Japan). Fuel; 52: No. 2, 143-148(Apr 1973).
MICROSCOPY; ANISOTROPY; X-RAY DIFFRACTION; SOLVENT EXTRACTION; HEAT TREATMENTS; BITUMINOUS COAL; CARBONIZATION; METHYLATION; COAL; COKE; PETROLEUM; POLYMERS; TEXTURE; HIGH TEMPERATURE; LOW TEMPERATURE; MELTING
- 00192 CHANGES IN STATE OF COMBINATION OF INORGANIC CONSTITUENTS DURING CARBONIZATION OF VICTORIAN BROWN COAL. Murray, J.B. (State Electricity Commission of Victoria, Melbourne). Fuel; 52: No. 2, 105-111(Apr 1973).
0 to 1000°C. LIGNITE; TEMPERATURE DEPENDENCE; CARBONIZATION; CHEMICAL REACTIONS; VARIATIONS; INORGANIC COMPOUNDS; MINERALS; DECOMPOSITION; HEATING; BROWN COAL

Desulfurization And Purification

GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; POTASSIUM PHOSPHATES

REFER ALSO TO CITATIONS 47, 69, 174, 175, 190, 2222, 2487, 2643, 2697, 2931, 2997, 3072, 3113, 3211, 3582, 3684, 4202, 4301, 4318, 4359, 4534, 4732, 4868, 5063, 5068, 5100, 5132, 5137, 5165, 5178, 5227, 5236, 5238, 5243, 5246, 5264, 5268, 5270, 5285, 5299, 5307, 5313, 5316, 5317, 5335, 5349, 5380, 5382, 5388, 5402, 5409, 5412, 5418, 5422, 5456, 5473, 5480, 5485, 5490, 5571, 5625, 5796, 5914, 5932, 6408, 6410, 6759, 6811, 6830, 6880, 6919, 6933, 6938, 6951, 6985, 6986, 6991, 7003, 7009, 7032, 7073, 7141, 7146, 7152, 7157, 7167, 7173, 7182, 7350, 7351, 7387, 7392, 7440

00193 WELLMAN—LORD SO₂ RECOVERY PROCESS. Sulphur; No. 73, 24-7(Nov-Dec 1967). For desulfurization of flue gas. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; WELLMAN-LORD PROCESS

00194 SOME PROBLEMS OF DRY PROCESSES FOR REMOVING SO₂ FROM FLUE GASES. Bettelheim, J.; Billinge, B.H.M.; Collins, A.C. Energy Dig.; 1: No. 1, 29-35(Aug-Sep 1972). From National Society for Clean Air, Spring Seminar; (1972). Engineering valuations of alkalinized alumina, active C, and modified Claus processes for removal of S dioxide from flue gas. FLUE GAS; DESULFURIZATION; SULFUR DIOXIDE; REMOVAL; ALUMINIUM OXIDES; ACTIVATED CARBON; SODIUM OXIDES

00195 WAR ON SULFUROUS FUEL-GENERATED AIR POLLUTION: STANDPOINT OF ELECTRICITE DE FRANCE. Ginocchio, R. Ann. Mines; 1973: 61-74(Nov-Dec 1973). (In French). Desulfurization of flue gas. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; CHEMISORPTION; CALCIUM OXIDES; OXIDATION; CALCIUM CARBONATES; MAGNESIUM OXIDES

00196 CONTROL OF PARTICULATE AND SO₂ EMISSIONS FROM AN INDUSTRIAL BOILER PLANT. Quillman, B.; Vogelsand, C.W. Bldg. Systems Design; 71: No. 1, 185-9(Dec-Jan 1974). From American Society of Mechanical Engineers Industrial Power Conference; Louisville, KY (14 May-20 May 1973). Tail-end limestone flue gas scrubbing offers greatest potential on annual operating cost basis. SULFUR DIOXIDE; REMOVAL; FLUE GAS; DESULFURIZATION; ECONOMICS; LIMESTONE; SCRUBBING

00197 CATALYTIC CONVERSION OF SO₂ TO SO₃ BY FLY ASH AND THE CAPTURE OF SO₂ AND SO₃ BY CAO AND MGD. Marier, P.; Dibbs, H.P. Thermochemica Acta; 8: No. 1, 2, 155-65(Jan-Feb 1974). Iron oxide in fly ash acts as catalyst. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; OXIDATION; OXYGEN; SULFUR OXIDES; CATALYSTS; IRON OXIDES; FLY ASH; CHEMISORPTION; CALCIUM OXIDES; MAGNESIUM OXIDES

00198 SELECTIVE ABSORPTION OF ACID GASES. Heitz, R.G.; Rocklin, A.L. (to Dow Chemical Co.). US Patent 2,747,962. H₂S, HCN, and SO₂ absorbed from gaseous mixtures containing CO₂ by limiting time of contact with alkaline scrubbing medium to less than 0.05 sec. HYDROGEN SULFIDES; HYDROCYANIC ACID; SULFUR DIOXIDE; ABSORPTION; CARBON DIOXIDE; GASES; PURIFICATION; DESULFURIZATION; SCRUBBING; REMOVAL

00199 REMOVAL OF H₂S FROM GAS BY THE TRIPOTASSIUM PHOSPHATE PROCESS AT RICHFIELD PLANT. Mullen, J.M. Refiner Natural Gasoline Mfr.; 18: 159-60

00200 (WASH-1337-4) REGIONAL DEMONSTRATION PROGRAM FOR MAXIMUM USE OF HIGH SULFUR COAL AND MAINTENANCE OF AIR QUALITY STANDARDS. 78p. NTIS \$7.00.

Methods for reducing sulfur oxides emissions from coal-fired utilities. COAL; COMBUSTION; AIR POLLUTION; FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR; SULFUR OXIDES; COAL GASIFICATION; MONITORING; ENVIRONMENT; REGIONAL ANALYSIS

00201 PROCESS OF OBTAINING SULFUR, ETC., FROM FURNACE-GASES. Carpenter, F.R. (to American Iron and Steel Alloys Co., Denver, CO). US Patent 925,751. 22 Jun 1909. Filed date 17 Mar 1906. 2p.

Use of incandescent coke to reduce SO₂ to sulfide which is subsequently decomposed at high temperature. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; COKE; REDUCTION; SULFIDES; DECOMPOSITION; GASES; COOLING; FILTRATION; SULFUR

00202 PURIFYING GASES AS IN ELIMINATING HYDROGEN SULFIDE FROM AIR. Seil, G.E. (to Koppers Co.). US Patent 1,802,580. 28 Apr 1925.

Washing with Na₂CO₃ and Fe carbonate. GASES; DESULFURIZATION; AIR; SODIUM CARBONATES; PURIFICATION

00203 GAS PURIFICATION. Sperr, F.W. Jr. (to Koppers Co.). US Patent 1,806,370. 19 May 1925.

Use of alkaline solution containing nickel sulfide. COAL GAS; HYDROCYANIC ACID; HYDROGEN SULFIDES; DESULFURIZATION; NICKEL SULFIDES; SODIUM CARBONATES

00204 REMOVING HYDROGEN SULFIDE FROM GASES. Hansen, C.J. (to Koppers Co.). US Patent 1,843,224. 2 Feb 1926.

Washing with polythionate solution containing iron. COAL GAS; IRON COMPOUNDS; THIONATES; DESULFURIZATION; HYDROGEN SULFIDES

00205 PURIFYING GASES. Hansen, C.J. (to I. G. Farbenind.). German(FRG) Patent 507,396. 22 Jul 1926.

Absorption of NH₃ and H₂S by washing with (NH₄)₂S₂O₃ containing NH₄ polythionate and H₂SO₃. FUEL GAS; PURIFICATION; AMMONIA; HYDROGEN SULFIDES; DESULFURIZATION; AMMONIUM COMPOUNDS; THIOSULFATES; THIONATES; SULFUROUS ACID

00206 ABSORPTION OF HYDROGEN SULFIDE AND AMMONIA FROM GASES. Hansen, C.J. (to I. G. Farbenind.). US Patent 1,826,779. 13 Oct 1926.

Using ammonia polythionate and ammonium thiosulfate. COAL GAS; AMMONIA; HYDROGEN SULFIDES; AMMONIUM COMPOUNDS; THIOSULFATES; PURIFICATION; DESULFURIZATION

00207 PURIFYING GASES. Fischer, F. German(FRG) Patent 558,558. 25 Dec 1926.

Conversion of organic sulfur compounds to H₂S using contact agents containing Au and Ag. ORGANIC SULFUR COMPOUNDS; GOLD; SILVER; ADSORPTION; HYDROGEN SULFIDES; DESULFURIZATION; COAL GAS; REMOVAL

00208 REMOVING HYDROGEN SULFIDE FROM GASES. Hansen, C.J. (to I. G. Farbenind.). German(FRG) Patent 539,317. 5 Jan 1927.

Washing with solution of polythionate, bisulfite, or bisulfite-sulfite mixture of NH₄, alkali metal, Zn, or Mg. COAL GAS; HYDROGEN SULFIDES; THIONATES; SULFITES; AMMONIUM COMPOUNDS; ZINC COMPOUNDS; MAGNESIUM COMPOUNDS; DESULFURIZATION

00209 GAS PURIFICATION. Sperr, F.W., Jr.

- (to Koppers Co.). US Patent 1,841,419. 19 Jan 1927.
Removal of H₂S using alkaline absorbent liquid such as Na₂CO₃ solution containing catalyst such as Co, Ni, or Fe compound. COAL GAS; PURIFICATION; HYDROGEN SULFIDES; SODIUM CARBONATES; CATALYSTS; COBALT COMPOUNDS; NICKEL COMPOUNDS; IRON COMPOUNDS; DESULFURIZATION
- 00210 PURIFYING COAL GAS, ETC. Baehr, H. (to I. G. Farbenindustrie AG). German (FRG) Patent 525,066. 28 Apr 1927.
Catalytic reaction with heated air. COAL GAS; PURIFICATION; AMMONIA; HYDROGEN SULFIDES; CATALYSIS; AIR
- 00211 REMOVING HYDROGEN SULFIDE FROM GASES. (to Wintershall). German (FRG) Patent 516,851. 17 Sep 1927.
By passing through suspension of basic ferric salt in a ferric salt solution. HYDROGEN SULFIDES; IRON CHLORIDES; NITRIC ACID; ADSORPTION; FUEL GAS; DESULFURIZATION
- 00212 PURIFYING GASES. Farbenind, I.G. British Patent 310,063. 20 Oct 1927.
Desulfurization by passing over charcoal or alkaline earth metals, Al, or heavy metal compounds. PHOSPHIDES; GASES; PURIFICATION; DESULFURIZATION; COAL; ADSORPTION; CHARCOAL; ALKALINE EARTH METALS; ALUMINIUM COMPOUNDS; SULFUR COMPOUNDS; COPPER SULFIDES; SULFIDES; NITRIDES; COPPER NITRIDES; COPPER PHOSPHIDES
- 00213 DESULFURIZING GASES. Brandt, R. German (FRG) Patent 514,666. 15 Dec 1927.
Removal of H₂S from gases by means of K₃Fe(CN)₆ solution. DESULFURIZATION; HYDROGEN SULFIDES; FERROCYANIDES; POTASSIUM COMPOUNDS; FUEL GAS
- 00214 NOTES ON PURIFICATION [OF COAL GAS FROM HYDROGEN SULFIDE]. Pearson, G.C. Trans. Inst. Gas Engrs.; 78: 274-298 (1928).
COAL GAS; DESULFURIZATION; HYDROGEN SULFIDES
- 00215 PURIFYING COAL OR SIMILAR GASES. Hansen, C.J. (to H. Koppers AG). British Patent 307,903. 17 Mar 1928.
HYDROGEN SULFIDES; AMMONIA; COAL GAS; AIR; OXYGEN; PURIFICATION; IRON OXIDES; PATENTS; DESULFURIZATION
- 00216 PURIFYING GASES SUCH AS THOSE FROM COAL DISTILLATION. Hansen, C.J. (to H. Koppers AG). British Patent 309,116. 5 Apr 1928.
Scrubbing with liquor containing iron or manganese compounds. COAL GAS; DISTILLATION; COAL; PURIFICATION; AMMONIA; HYDROGEN SULFIDES; IRON COMPOUNDS; DESULFURIZATION; IRON HYDROXIDES; MANGANESE COMPOUNDS
- 00217 REMOVING AMMONIA AND HYDROGEN SULFIDE FROM COAL GAS. Hansen, C.J. (to Heinrich Koppers). German (FRG) Patent 504,777. 6 Apr 1928.
Washing with FeS₂O₆ and Fe(OH)₃. AMMONIA; HYDROGEN SULFIDES; COAL GAS; IRON COMPOUNDS; THIONATES; IRON HYDROXIDES; PURIFICATION; DESULFURIZATION
- 00218 PURIFYING FUEL GASES. (to Compagnie Internationale pour la Fabrication des Essences et Petroles). British Patent 309,585. 13 Apr 1928.
Desulfurization by passing over nickel, cobalt, or copper compounds. COAL GAS; DESULFURIZATION; NICKEL COMPOUNDS; COBALT COMPOUNDS; COPPER COMPOUNDS; PATENTS; NICKEL OXIDES; COBALT OXIDES; COPPER OXIDES; PURIFICATION
- 00219 DESULFURIZING COAL-DISTILLATION GASES, ETC. Hunyady, I.; Koller, K. German (FRG) Patent 518,431. 11 May 1928.
- Treatment with aqueous suspension of Mn(OH)₃. COAL GAS; DESULFURIZATION; MANGANESE HYDROXIDES
- 00220 PURIFYING FUEL GASES, ETC. (to I. G. Farbenindustrie AG). British Patent 319,396. 20 Jun 1928.
Oxidation of H₂S to SO₂ by passing over heavy metal catalyst containing 10 percent of second metal or compound. HYDROGEN SULFIDES; CATALYSTS; NICKEL; IRON; COBALT; COPPER; BISMUTH; LEAD; ALKALI METALS; ALKALINE EARTH METALS; PURIFICATION; FUEL GAS; DESULFURIZATION; OXIDATION; SULFUR DIOXIDE; REMOVAL
- 00221 GAS PURIFICATION. (to Soc. Anon pour l'Etude et l'Exploitation des Procédes G. Claude). British Patent 317,015. 8 Aug 1928.
Removal of sulfurous impurities by addition of C₂H₄ or CH₄. COAL GAS; PURIFICATION; ETHYLENE; METHANE; SULFUR; DISSOLUTION; WATER GAS; PATENTS; DESULFURIZATION
- 00222 GAS PURIFICATION. (to I. G. Farbenindustrie AG). British Patent 321,982. 23 Aug 1928.
Washing of coal gas with liquor comprising ammonium polythionate and ammonium thiosulfate. COAL GAS; DESULFURIZATION; AMMONIUM COMPOUNDS; THIOSULFATES; PURIFICATION
- 00223 RECOVERY OF SULPHUR. Howard, W.H. US Patent 1,685,231. 25 Sep 1928. Filed date 20 Aug 1927. 2p.
From SO₂ removed from flue gases by washing (water). FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; WASHING; WATER; AIR; COMBUSTION; REDUCTION; COKE; SULFUR
- 00224 COAL GAS. (to Imperial Chemical Industries, Ltd.). French Patent 662,383. 16 Oct 1928.
Washing with ammoniacal liquor, cuproammoniacal solution, and kerosene. COAL GAS; AMMONIA; BENZENE; SULFUR DIOXIDE; CARBON MONOXIDE; CARBON DIOXIDE; HYDROCARBONS; DESULFURIZATION; PURIFICATION
- 00225 COAL GAS. Hansen, C.J. French Patent 662,709. 20 Oct 1928.
Extraction of NH₃ and H₂S from coal gases to form (NH₄)₂SO₄ and S. COAL GAS; PURIFICATION; AMMONIA; HYDROGEN SULFIDES; SOLVENT EXTRACTION; COAL; DISTILLATION; IRON HYDROXIDES; DESULFURIZATION
- 00226 REMOVING HDROGEN SULFIDE FROM GAS. Sperr, F.W. Jr. (to Koppers Co.). US Patent 1,733,321. 29 Oct 1928.
Washing with ammoniacal solution containing hydrated ferric oxide. GASES; PURIFICATION; HYDROGEN SULFIDES; DESULFURIZATION; IRON OXIDES; DESULFURIZATION
- 00227 GAS PURIFICATION. Sperr, F.W. Jr. (to Koppers Co.). US Patent 1,734,307. 5 Nov 1928.
Reaction of sulfur in gas with iron oxide. SODIUM CARBONATES; DESULFURIZATION; IRON COMPOUNDS; PURIFICATION; GASES
- 00228 GAS PURIFICATION. Hansen, C.J. (to Heinrich Koppers AG). British Patent 340,663. 23 Nov 1928.
Removal of H₂S from gases by scrubbing with Fe-containing polythionates that contain SO₂. GASES; DESULFURIZATION; HYDROGEN SULFIDES; IRON COMPOUNDS; SULFUR DIOXIDE; THIONATES; REMOVAL
- 00229 REMOVING HYDROGEN SULFIDE FROM GASES. Hansen, C.J. (to Heinrich Koppers AG). German (FRG) Patent 557,989. 23 Nov 1928.
Removal of H₂S from coal gas by washing with

- Fe polythionate solutions containing H_2SO_4 . HYDROGEN SULFIDES; DESULFURIZATION; COAL GAS; IRON COMPOUNDS; SULFURIC ACID; THIONATES; REMOVAL
- 00230 COAL-GAS PURIFICATION. (to I. G. Farbenind. AG). French Patent 666,131. 20 Dec 1928.
Removal of NH_3 , H_2S , and $(CN)_2$ by washing with lyes containing ammonium polythionate and $(NH_4)_2S_2O_3$. COAL GAS; PURIFICATION; DESULFURIZATION; HYDROGEN SULFIDES; AMMONIA; THIONATES; AMMONIUM COMPOUNDS; CYANOGEN
- 00231 GAS PURIFICATION. Jacobson, D.L. (to Koppers Co.). US Patent 1,741,113. 24 Dec 1928.
Washing with absorbant liquid containing Mn compound. HYDROGEN SULFIDES; GASES; PURIFICATION; DESULFURIZATION; MANGANESE CHLORIDES; SODIUM CARBONATES; IRON OXIDES
- 00232 WET PURIFICATION OF COAL GAS. Pickles, L.S. Gas J.; 188: 107-114(1929).
COAL GAS; PURIFICATION; SULFURIC ACID; AMMONIA; HYDROGEN SULFIDES; SULFUR DIOXIDE; HYDROCYANIC ACID; DESULFURIZATION
- 00233 SULFUR PRODUCTION AND GAS PURIFICATION. Petit, T.P.L. Chem. Weekbl.; 26: 542-547(1929).
Scrubbing with K_2CO_3 solution, removal of H_2S by Fe_2O_3 . SULFUR; CHEMICAL PREPARATION; PURIFICATION; DESULFURIZATION; GASES; PRODUCTION; POTASSIUM CARBONATES; HYDROGEN SULFIDES; IRON OXIDES; PURIFICATION
- 00234 DRY PURIFICATION OF GAS. Geipert, R. Het Gas; 49(1929).
PURIFICATION; DESULFURIZATION; HYDROGEN SULFIDES; GASES
- 00235 RECOVERY OF BY-PRODUCT NITROGEN AND SULFUR IN THE COKE-OVEN AND GAS INDUSTRIES. Muhlert, F. Brennst.-Chem.; 10: 487-490(1929).
Review of Koppers, Seaboard, Ferrox, Thylox, and Nickel, Kohlenteknik, Bahr, and Petit processes. AMMONIA; DESULFURIZATION; COAL GAS; HYDROGEN SULFIDES; FUEL GAS; PURIFICATION; KOPPERS PROCESS; SEABOARD PROCESS; FERROX PROCESS; THYLOX PROCESS; BAHR PROCESS; PETIT PROCESS
- 00236 DESULFURATION OF COAL. Gruenert, E. J. Prakt. Chem.; 122: 1-120(1929).
Study of main reactions involved in removal of S from coal during distillation. COAL; DESULFURIZATION; CHEMICAL REACTIONS; CARBON; STEAM; AMORPHOUS STATE; IRON COMPOUNDS; HYDROLYSIS; PYRITES
- 00237 BURKHEISER [GAS-] PURIFICATION PROCESS. Moon, P.G.G. Gas J.; 188: 45-52(1929).
GASES; PURIFICATION; AMMONIA; HYDROGEN SULFIDES; IRON OXIDES; DESULFURIZATION; CYANOGEN; BURKHEISER PROCESS
- 00238 ZINC PROCESS FOR EXTRACTION OF AMMONIA AND HYDROGEN SULFIDE FROM [COAL] GAS. Cobb, J.W. Gas J.; 188: 45(1929).
ZINC SULFATES; AMMONIA; HYDROGEN SULFIDES; COAL GAS; PURIFICATION; DESULFURIZATION; REMOVAL
- 00239 RECOVERY OF THE BY-PRODUCTS NITROGEN AND SULFUR IN THE COKE AND GAS INDUSTRY. Mahleri, F. Brennst.-Chem.; 10: 487-490(1929).
Description of liquid purification with recovery of S and description of Bahr process. AMMONIA; SULFUR; SEPARATION PROCESSES; COAL GAS; PURIFICATION; DESULFURIZATION
- 00240 PURIFICATION OF COAL GAS FROM HYDROGEN SULFIDE. Pearson, G.C. Gas J.; 186: 797-807(1929).
Review of process development and design and layout of plant for removal of H_2S using Fe_2O_3 box purifiers. COAL GAS; PURIFICATION; DESULFURIZATION; HYDROGEN SULFIDES; IRON OXIDES; DESIGN; INDUSTRIAL PLANTS; LIQUIDS; REMOVAL
- 00241 REMOVING AMMONIA AND HYDROGEN SULFIDE FROM COAL-DISTILLATION GASES, ETC. Hansen, C.J. (to Heinrich Koppers). German(FRG) Patent 538,392. 11 Jan 1929.
Treatment with solution of thionate or thiosulfate of heavy metal such as Fe, Mn, or Zn. AMMONIA; HYDROGEN SULFIDES; COAL GAS; DISTILLATION; PURIFICATION; DESULFURIZATION; IRON COMPOUNDS; MANGANESE COMPOUNDS; ZINC COMPOUNDS; THIONATES; THIOSULFATES
- 00242 GAS PURIFICATION. (to I. G. Farbenindustrie AG). British Patent 328,008. 15 Jan 1929.
Extraction of aromatic hydrocarbons by treatment with H_2SO_4 . HYDROCARBONS; SOLVENT EXTRACTION; GASES; CRACKING; COAL TAR; SULFURIC ACID; ACTIVATED CARBON; PURIFICATION
- 00243 GAS PURIFICATION. Huff, W.J.; Logan, L.; Lusby, O.W. French Patent 669,929. 24 Jan 1929.
Extraction of H_2S and organic sulfur compounds by metal in 5th, 6th, or 7th group. GASES; PURIFICATION; HYDROGEN SULFIDES; COPPER ALLOYS; CHROMIUM ALLOYS; URANIUM ALLOYS; VANADIUM ALLOYS; VANADIUM; CHROMIUM; ORGANIC SULFUR COMPOUNDS; DESULFURIZATION; SOLVENT EXTRACTION; REMOVAL
- 00244 REMOVING HYDROGEN SULFIDE FROM GASES. Oehme, H. (to Chem. Fab. Kalk GmbH). German(FRG) Patent 541,302. 12 Feb 1929.
Treatment with acid solution of salt of Cd, Sn, or Sb. GASES; DESULFURIZATION; HYDROGEN SULFIDES; CADMIUM COMPOUNDS; TIN COMPOUNDS; ANTIMONY COMPOUNDS; CHEMICAL REACTIONS; TIN CHLORIDES; HYDROCHLORIC ACID; AQUEOUS SOLUTIONS
- 00245 REMOVING CARBON DIOXIDE AND HYDROGEN SULFIDE FROM GASES. Gyerki, J.; Balint, S. Austrian Patent 113,684. 15 Feb 1929.
CARBON DIOXIDE; HYDROGEN SULFIDES; GASES; PURIFICATION; SODIUM SULFIDES; CALCIUM HYDROXIDES; DESULFURIZATION; PATENTS
- 00246 REMOVING SULFUR COMPOUNDS FROM GASES. (to I. G. Farbenind.). British Patent 334,526. 2 Mar 1929.
Oxidation H_2S to SO_2 and washing with thiosulfates. COAL GAS; PURIFICATION; DESULFURIZATION; OXIDATION; THIOSULFATES
- 00247 GAS PURIFICATION. Jacobson, D.L. (to Koppers Co.). US Patent 1,752,382. 1 Apr 1929.
Removal of H_2S by washing with alkaline solution such as Na_2CO_3 containing Fe compound. HYDROGEN SULFIDES; GASES; PURIFICATION; DESULFURIZATION; SODIUM CARBONATES; IRON COMPOUNDS; IRON OXIDES; REMOVAL
- 00248 PURIFYING COAL GAS, ETC. d'Leny, W. (to Imperial Chemical Industries, Ltd.). British Patent 329,135. 26 Apr 1929.
Use of Fe_2O_3 , $Fe(OH)_3$, or Ni salts in suspension for gas purification in the form of freely falling liquid film. COAL GAS; PURIFICATION; IRON OXIDES; IRON HYDROXIDES; SUSPENSIONS; FILMS; LIQUIDS; NICKEL COMPOUNDS; SALTS
- 00249 PURIFYING GASES CONTAINING HYDROGEN SULFIDE. d'Leny, W.C.; Park, J.R. (to Imperial Chemical Industries, Ltd.). US Patent 1,858,919. 17 May 1929.
Treatment with alkaline suspension of iron hydroxide and nickel carbonate. HYDROGEN

- SULFIDES; IRON HYDROXIDES; NICKEL CARBONATES; PURIFICATION; DESULFURIZATION; COAL GAS
- 00250 GAS PURIFICATION. Bragg, G.A. (to Koppers Co.). US Patent 1,809,818. 16 Jun 1929.
Flowing gas treated with sodium thioarsenate solution. COAL GAS; WATER GAS; PURIFICATION; DESULFURIZATION; SODIUM COMPOUNDS; ARSENIC COMPOUNDS; SULFUR COMPOUNDS
- 00251 GAS PURIFICATION. Murphy, E.J. (to Bartlett Hayward Co.). US Patent 1,771,136. 22 Jul 1929.
Removal of H₂S using a material (consisting mostly of iron oxides) prepared by reducing to 200 mesh and heating to 200°. GASES; HYDROGEN SULFIDES; IRON OXIDES; PURIFICATION; DESULFURIZATION; REMOVAL
- 00252 DESULFURIZING GASES. Baehr, H.; Wietzel, G. (to I. G. Farbenindustrie AG). German (FRG) Patent 529,110. 30 Jul 1929.
Catalytic oxidation of H₂S, absorption of products in ammoniacal solution or water. COAL GAS; DESULFURIZATION; CATALYSIS; OXIDATION; HYDROGEN SULFIDES; SULFUR DIOXIDE
- 00253 PURIFYING COKE-OVEN, ETC., GASES. (to I. G. Farbenindustrie AG). French Patent 682,165. 5 Aug 1929.
Removal of S compounds and CO₂ by washing with high boiling hydrocarbons or phenols. COAL GAS; PURIFICATION; DESULFURIZATION; CARBON DIOXIDE; HYDROCARBONS; PHENOLS; OILS; CRESOLS; COAL GAS; REMOVAL
- 00254 DESULFURIZING AGENTS FOR GAS PURIFICATION. Joseph, A. (to Compagnie Internationale pour la Fabrication des Essences et Petroles). US Patent 1,775,366. 9 Sep 1929.
FUEL GAS; PURIFICATION; NICKEL OXIDES; CLAYS; DESULFURIZATION
- 00255 DESULFURIZING GASES. (to I. G. Farbenind.). British Patent 340,016. 16 Sep 1929.
Catalysts comprising sulfides of elements of groups 2 to 7 and metals of group 8 or heavy metals of group 1. DESULFURIZATION; HYDROGEN SULFIDES; COAL GAS; FUEL GAS; CATALYSTS; MOLYBDENUM SULFIDES; NICKEL CARBONATES; SULFIDES
- 00256 DESULFURIZING FUEL GASES. Watson, S.G.; Henshaw, D.M. (to W. C. Holmes and Co., Ltd.). British Patent 332,147. 15 Oct 1929.
Treatment of hot gases with CaCl₂ solution prior to removal of sulfur with metallic oxides in alkalis. DESULFURIZATION; FUEL GAS; CALCIUM CHLORIDES; OXIDES
- 00257 REMOVING HYDROGEN SULFIDE FROM GAS. (to C. Otto and Co. GmbH). German (FRG) Patent 539,733. 23 Oct 1929.
Stage washing using strong NH₃ solution. COAL GAS; AMMONIA; AQUEOUS SOLUTIONS; HYDROGEN SULFIDES; DESULFURIZATION
- 00258 ABSORBING AND UTILIZING CARBON DISULFIDE AND CARBON OXSULFIDE FROM INDUSTRIAL GASES. Lush, E.J. (to Technical Research Works, Ltd.). British Patent 341,584. 31 Oct 1929.
Piperidine or homologs as extractants. CARBON SULFIDES; GASES; DESULFURIZATION; PIPERIDINES; PYRIDINES; ALCOHOLS; KETONES
- 00259 DESULFURIZING GAS. (to I. G. Farbenind.). French Patent 686,986. 20 Dec 1929.
Oxidation to SO₂ and washing with ammonium sulfate, bisulfate, and polythionates. DESULFURIZATION; HYDROGEN SULFIDES; OXIDATION; CATALYSIS; AMMONIUM COMPOUNDS; SULFITES; THIONATES; FUEL GAS
- 00260 REMOVING HYDROGEN SULFIDE AND AMMONIA FROM GAS MIXTURES. Klempt, W.; Brodkorb, F. (to Gesellschaft fuer Kohlentechnik mbH). German (FRG) Patent 568,638. 24 Dec 1929.
Treatment with Fe(OH)₃ then (NH₄)₂S₂O₃, polythionate, sulfite, and bisulfite. HYDROGEN SULFIDES; AMMONIA; GASES; IRON HYDROXIDES; AMMONIUM COMPOUNDS; SULFATES; THIONATES; SULFITES; SULFUR DIOXIDE; PURIFICATION; DESULFURIZATION; THIOSULFATES
- 00261 GAS PURIFICATION. (to I. G. Farbenindustrie AG). British Patent 351,975. 24 Dec 1929.
Desulfurization using Ni, Se, Te, or heavy metal oxide catalyst at 300 to 400°C. DESULFURIZATION; MEDIUM TEMPERATURE; NICKEL OXIDES; CATALYSTS; SELENIUM OXIDES; TELLURIUM OXIDES; AMMONIA; COAL GAS
- 00262 HUMIDITY EFFECTS IN THE IRON OXIDE PROCESS FOR THE REMOVAL OF HYDROGEN SULFIDE FROM GAS. Milbourne, C.G.; Huff, W.J. Ind. Eng. Chem.; 22: 1213-24(1930).
HUMIDITY; IRON OXIDES; HYDROGEN SULFIDES; FUEL GAS; DESULFURIZATION; REGENERATION
- 00263 FELD PROCESSES FOR THE EXTRACTION OF AMMONIA AND HYDROGEN SULFIDE FROM COAL GAS. Parker, A. Gas Eng.; 47: 694-5(1930).
AMMONIA; HYDROGEN SULFIDES; COAL GAS; DESULFURIZATION; PURIFICATION; OXIDATION; IRON SULFATES; AMMONIUM COMPOUNDS; THIONATES; ZINC SULFATES; FELD PROCESS
- 00264 CATALYTIC DESULFURATION AND HYDROGENATION OF A PRIMARY TAR FRACTION. Pertierra, J.M. Anales Soc. Espan. Fis. Quim.; 28: 1435-50(1930).
CATALYSIS; DESULFURIZATION; HYDROGENATION; OXIDES; BENZINE; PHENOLS; TAR
- 00265 NEW COMMERCIAL APPLICATION OF THE WALTER FELD POLYTHIONATE PROCESS. Overdick, F. Z. Anal. Chem.; 43: 1048-51(1930).
AMMONIA; SULFUR; COAL GAS; AMMONIUM COMPOUNDS; THIONATES; PURIFICATION; DESULFURIZATION; FELD PROCESS
- 00266 NEW PROCESSES FOR PURIFYING ILLUMINATING GASES BY REMOVING SULFUR. Muhlert, F. Apparaturbau; 42: 232-3(1930).
SULFUR; DESULFURIZATION; FUEL GAS; REVIEWS; IRON OXIDES; AMMONIUM COMPOUNDS; SULFATES
- 00267 OBSERVATIONS CONCERNING ORGANIC AND OTHER FORMS OF SULFUR IN COALS CONTAINING LARGE AMOUNTS OF SULFUR. Nicolls, J.H.H.; Swartzman, E. Can. Dept. Mines, Mines Branch, Rep.; 712: 28-35(1930).
SULFUR; ORGANIC SULFUR COMPOUNDS; SOLVENT EXTRACTION; HYDROCHLORIC ACID; OXIDATION; TEMPERATURE DEPENDENCE; COAL; CHEMICAL COMPOSITION; CHEMICAL STATE
- 00268 DISTRIBUTION OF SULFUR IN THE COMBUSTION OF COAL AND COKE. Trifonov, I.; Rasheva-Trifonova, E. Brennst.-Chem.; 11: 165-169(1930).
COAL; SULFUR; DISTRIBUTION; COKE; COMBUSTION
- 00269 CHEMICAL REACTIONS IN THE PETIT PROCESS (OF GAS PURIFICATION). Ter-Nedden, W. Brennst.-Chem.; 11: 67-68(1930).
FUEL GAS; PURIFICATION; POTASSIUM CARBONATES; HYDROGEN SULFIDES; CHEMICAL REACTION KINETICS; CARBON DIOXIDE; DESULFURIZATION
- 00270 LIME FOR SCRUBBING GAS IS EFFICIENT ECONOMY. Schulz, M.E. Refiner and Nat. Gas. Mfr.; 9: No. 2, 75(1930).

- SODIUM HYDROXIDES; CALCIUM HYDROXIDES;
DESULFURIZATION; HYDROGEN SULFIDES; COST; FUEL GAS
- 00271 PRESENT STATUS OF DESULFURIZATION OF
COKE-OVEN GAS. Wasilewski, L. Przem. Chem.;
14: 204-211(1930).
Critical review of 10 methods including
Petit, Koppers, and Rostin processes.
DESULFURIZATION; REVIEWS; COAL GAS; GERMAN WORK;
PETIT PROCESS; KOPPERS PROCESS; ROSTIN PROCESS
- 00272 PETIT PROCESS FOR SULFUR PURIFICATION
(OF GAS). Thau, A. Gas- Wasserfach; 73:
827-828(1930).
DESULFURIZATION; HYDROGEN SULFIDES; POTASSIUM
CARBONATES; IRON OXIDES; PETIT PROCESS; GASES;
REMOVAL
- 00273 LIQUID PURIFICATION (OF GAS) BY SODA
ASH SOLUTION. Davey, W.J.G. Gas J.; 189:
157-159(1930).
GASES; SODIUM CARBONATES; PURIFICATION;
DESULFURIZATION; SOLUTIONS; SEABOARD PROCESS;
HYDROCYANIC ACID; HYDROGEN SULFIDES; SODIUM
HYDROXIDES; MIXTURES; REMOVAL
- 00274 SULFUR RECOVERY FROM THE GAS FROM COAL
DISTILLATION. Muhlert, A. Chaleur Ind.; 11:
67-69(1930).
COAL GAS; DESULFURIZATION; SULFUR OXIDES;
HYDROGEN SULFIDES; COAL; DISTILLATION; SEABOARD
PROCESS; THYLOX PROCESS; FERROX PROCESS;
PURIFICATION; PETIT PROCESS; BAHR PROCESS
- 00275 DESULFURIZATION OF GASES EITHER FREE
FROM, OR CONTAINING AMMONIA BY THE PROCESS OF
THE GES. F. KOHLENTCHNIK. Gluud, W.; Klempt,
W.; Brodtkorb, F. Brennst.-Chem.; 11: 23-
27(1930).
DESULFURIZATION; FUEL GAS; AMMONIA; HYDROGEN
SULFIDES; SODIUM CARBONATES; IRON HYDROXIDES
- 00276 REMOVING HYDROGEN SULFIDE FROM GAS.
Shoeld, M. (to Koppers Co.). US Patent
1,844,694. 9 Feb 1930.
Treatment with solution of alkali metal
compound and metal of Sn group such as Na_2CO_3
and Na arsenite. COAL GAS; DESULFURIZATION;
HYDROGEN SULFIDES; LIQUIDS; SODIUM CARBONATES;
ARSENIC COMPOUNDS; SODIUM COMPOUNDS; WATER GAS
- 00277 AMMONIA AND HYDROGEN SULFIDE ABSORPTION
SIMULTANEOUSLY FROM INDUSTRIAL GASES. Hansen,
C. (to I. G. Farbenind.). US Patent
1,795,120. 3 Mar 1930.
Ammonium sulfite-bisulfite. AMMONIA;
HYDROGEN SULFIDES; COAL GAS; FUEL GAS; AMMONIUM
COMPOUNDS; SULFITES; PURIFICATION; DESULFURIZATION
- 00278 SEPARATING AMMONIA AND HYDROGEN SULFIDE
FROM GASES. Hansen, C. (to I. G.
Farbenind.). US Patent 1,795,121. 3 Mar
1930.
Ammonium thiosulfate, ammonium
polythionates, and ammonium sulfite-bisulfite.
AMMONIA; HYDROGEN SULFIDES; AMMONIUM COMPOUNDS;
THIONATES; SULFITES; COAL GAS; PURIFICATION;
DESULFURIZATION
- 00279 CATALYSTS FOR REMOVING ORGANIC SULFUR
COMPOUNDS FROM GASES. Lusby, O.W. (to
Wilbert J. Huff). US Patent 1,900,882. 7
Mar 1930.
Conversion of organic sulfur compounds in
gases to H_2S by contact with metal or compound
of 6 or 7th group such as U with metal or
compounds from 1st to 5th group such as Cu or
Ce. ORGANIC SULFUR COMPOUNDS; CATALYSTS; URANIUM;
COPPER; CERTIUM; DESULFURIZATION; GASES
- 00280 PURIFYING GASES CONTAMINATED WITH
HYDROGEN SULFIDE. Baehr, H. (to I. G.
Farbenindustrie AG). US Patent 1,900,751. 7
Mar 1930.
- Removal of H_2S by oxidation to SO_2 at 100 to
700° over nickel oxide with oxide-transferring
element of group 4 to 6 and Pb or Bi. HYDROGEN
SULFIDES; PURIFICATION; NICKEL OXIDES; CATALYSTS;
LEAD; BISMUTH; ALKALI METAL COMPOUNDS; ALKALINE
EARTH METAL COMPOUNDS; HIGH TEMPERATURE; MEDIUM
TEMPERATURE; GASES; DESULFURIZATION; REMOVAL
- 00281 FREEING COAL GAS FROM HYDROGEN SULFIDE.
Hultman, G.H. US Patent 1,849,526. 15 Mar
1930.
By washing with Na_2CO_3 solution and boiling
under vacuum. COAL GAS; DESULFURIZATION; HYDROGEN
SULFIDES; SODIUM CARBONATES; LOW PRESSURE;
SOLUTIONS
- 00282 PURIFYING FUEL GAS. Garrison, C.W.
(to Koppers Co.). US Patent 1,850,388. 22
Mar 1930.
Containing H_2S and CO_2 using circulating
alkaline solution. FUEL GAS; PURIFICATION;
DESULFURIZATION; HYDROGEN SULFIDES; PHENOLS; BASES;
SOLUTIONS
- 00283 PURIFYING GAS. (to Humphreys and
Glasgow, Ltd.). French Patent 693,106. 1
Apr 1930.
Removal of S from gas by bringing in contact
with heated catalyst formed of ZnO . FUEL GAS;
PURIFICATION; ZINC OXIDES; DESULFURIZATION;
SULFURIC ACID; ORGANIC SULFUR COMPOUNDS
- 00284 GAS PURIFICATION. Hansen, C.J. (to
Koppers Co.). US Patent 1,852,161. 5 Apr
1930.
Desulfurization by washing with thionates.
GASES; DESULFURIZATION; PURIFICATION; AMMONIA;
SULFUR COMPOUNDS; AMMONIUM COMPOUNDS; IRON
COMPOUNDS; MANGANESE COMPOUNDS; THIONATES
- 00285 GAS PURIFICATION. Jacobson, D.L.
(to Koppers Co.). US Patent 1,800,297. 14
Apr 1930.
Washing with alkaline sodium carbonate
solution containing a Pb compound. FUEL GAS;
HYDROGEN SULFIDES; DESULFURIZATION; SODIUM
CARBONATES; LEAD COMPOUNDS
- 00286 PURIFYING COAL DISTILLATION GASES.
Hansen, C.J. (to Koppers Co.). US Patent
1,854,511. 19 Apr 1930.
Washing with solution of complex compound of
 NH_4 thiosulfate and SO_2 , then thionate of metal
of Fe group. COAL GAS; AMMONIA; AMMONIUM
COMPOUNDS; THIOSULFATES; DESULFURIZATION; SULFUR
COMPOUNDS; IRON COMPOUNDS; HYDROGEN SULFIDES
- 00287 DESULFURIZING GASES. Hunyady, I.;
Koller, K. French Patent 698,327. 3 Jul
1930.
Contact with aqueous solutions of finely
ground MnO_2 . DESULFURIZATION; FUEL GAS; AQUEOUS
SOLUTIONS; MANGANESE OXIDES
- 00288 REMOVAL OF ORGANIC SULFUR COMPOUNDS
FROM GASES. Braus, K. (to I. G.
Farbenindustrie AG). US Patent 1,916,824. 4
Jul 1930.
300 to 400°; treatment with Mo or Ni oxides
on pumice in absence of nascent H. ORGANIC
SULFUR COMPOUNDS; DESULFURIZATION; GASES;
CATALYSTS; MOLYBDENUM OXIDES; NICKEL OXIDES;
PUMICE; HIGH TEMPERATURE
- 00289 REMOVING HYDROGEN SULFIDE FROM COAL GAS
OR WATER GAS. Sperr, F. W., Jr. (to Koppers
Co.). US Patent 1,815,933. 28 Jul 1930.
Use of iron oxide. HYDROGEN SULFIDES; COAL
GAS; WATER GAS; DESULFURIZATION; ALKALI METAL
COMPOUNDS; CARBONATES; IRON OXIDES; AIR; GAS FLOW
- 00290 GAS PURIFICATION. Seil, G.E. (to
Koppers Co.). US Patent 1,822,380. 8 Sep
1930.

- Removal of NH_3 and S using wash liquor containing an Fe compound in suspension. COAL GAS; HYDROGEN SULFIDES; DESULFURIZATION; IRON HYDROXIDES; AMMONIA; PURIFICATION
- 00291 REMOVING HYDROGEN SULFIDE FROM GASES, ETC. Lieseberg, F. (to I. G. Farbenind.). German (FRG) Patent 545,602. 17 Sep 1930.
Treatment with nitrosylsulfuric acid. HYDROGEN SULFIDES; COAL GAS; INORGANIC ACIDS; DESULFURIZATION
- 00292 PURIFYING GASES. Stief, F. German (FRG) Patent 553,650. 18 Sep 1930.
Washing with aqueous suspension of heavy metal salt such as PbSO_4 for removal of H_2S from gas. PURIFICATION; LEAD SULFATES; HYDROGEN SULFIDES; AQUEOUS SOLUTIONS; GASES; DESULFURIZATION
- 00293 PURIFYING GAS CONTAINING AMMONIA AND HYDROGEN SULFIDE. Sperr, F.W. (to Koppers Co. of Pennsylvania). US Patent 1,878,609. 20 Sep 1930.
Treatment with H_2SO_4 and then a suspension of Fe oxide in aqueous Na_2CO_3 . HYDROGEN SULFIDES; AMMONIA; PURIFICATION; DESULFURIZATION; IRON OXIDES; SODIUM CARBONATES; SULFURIC ACID; FUEL GAS; REMOVAL
- 00294 REMOVING SULFUR COMPOUNDS FROM GASES SUCH AS COAL GAS, AIR, OR HYDROGEN. Lush, E.J. US Patent 1,882,289. 11 Oct 1930.
Treatment with piperidine. COAL GAS; DESULFURIZATION; PIPERIDINES; CARBON SULFIDES
- 00295 PURIFYING GASES. Lush, E.J. (to Technical Research Works, Ltd.). French Patent 703,692. 14 Oct 1930.
Gas is passed through solution or emulsion of piperidine or its homologs. FUEL GAS; DESULFURIZATION; PIPERIDINES; CARBON DIOXIDE
- 00296 REMOVING IMPURITIES FROM DISTILLATION GAS. Beuthner, K. German (FRG) Patent 539,732. 28 Oct 1930.
Removal of S and HCN using bog iron ore or alkali-containing Fe_2O_3 hydrate. COAL GAS; ORES; IRON OXIDES; DESULFURIZATION; HYDROCYANIC ACID; HYDRATES; CHEMICAL REACTIONS; PURIFICATION
- 00297 PURIFYING GASES. Damiens, A.L.J. French Patent 720,740. 29 Oct 1930.
 H_2S removal from gases using reagent containing ZnCO_3 and $(\text{NH}_4)_2\text{CO}_3$, $(\text{NH}_4)_2\text{SO}_4$, or NH_4Cl . PURIFICATION; COAL GAS; DESULFURIZATION; HYDROGEN SULFIDES; ZINC CARBONATES; AMMONIUM COMPOUNDS; SULFATES; CHLORIDES; CARBONATES
- 00298 REMOVING SULFUR COMPOUNDS FROM GASES SUCH AS COAL, WATER, OR PRODUCER GASES. Wietzel, G.; Jannek, J.; Fried, F. (to I. G. Farbenind.). US Patent 1,782,590. 25 Nov 1930.
Oxidation of sulfur compounds in presence of catalyst such as Fe-P-Si. SULFUR; DESULFURIZATION; COAL GAS; OXIDATION; CATALYSTS; METALS; IRON ALLOYS; PHOSPHORUS; SILICON; HIGH TEMPERATURE; CHARCOAL; ACTIVATED CARBON
- 00299 PURIFYING GASES. (to Ges. fuer Kohlentechnik mbH). French Patent 712,467. 18 Dec 1930.
Wash with suspension of $\text{Fe}(\text{OH})_2$ in H_2O . HYDROGEN SULFIDES; COAL GAS; DESULFURIZATION; IRON HYDROXIDES; WATER; CHEMICAL REACTIONS; AIR; SULFUR OXIDES; AQUEOUS SOLUTIONS
- 00300 MIXED FERTILIZERS FROM A GAS-DESULFURIZING PROCESS. I. THE WET DESULFURIZING METHOD OF THE GESELLSCHAFT FUER KOHLENTECHNIK, WITH SIMULTANEOUS ABSORPTION OF AMMONIA. Gluud, W.; Klempt, W.; Brodkorb, F. Ber. Ges. Kohlentechn.; 3: 465-484(1931).
- HYDROGEN SULFIDES; AMMONIA; COAL; DESULFURIZATION; IRON SULFIDES; AIR; AMMONIUM COMPOUNDS; FERTILIZERS; PRODUCTION; THIOSULFATES; PURIFICATION
- 00301 DESULFURIZATION OF COKE. Gurarii, Y.S. Ukr. Khim. Zh.; 6: No. 2, 49-83(1931).
Treatment with gaseous unsaturated hydrocarbons, H_2O vapor, CH_4 , CO , and H_2 at 800 to 1200°C. COAL GAS; DESULFURIZATION; HYDROGENATION; ALKANES; METHANE; CARBON MONOXIDE; CHEMICAL REACTIONS
- 00302 SULFUR REMOVAL FROM COMBUSTION GASES. USE OF MANGANESE SALTS AS CATALYSTS. Brownlie, D. Chem. News; 143: 268-9(1931).
Spraying with 0.025% solution of Mn salt for removal of SO_2 . SULFUR OXIDES; GASES; DESULFURIZATION; MANGANESE COMPOUNDS; WATER; SULFURIC ACID; CHEMICAL PREPARATION; SPRAYS; SULFUR DIOXIDE
- 00303 METALLIC IONS AS CATALYSTS FOR THE REMOVAL OF SULFUR DIOXIDE FROM BOILER-FURNACE GASES. Johnstone, H.F. Ind. Eng. Chem.; 23: 559-61(1931).
 Fe^{3+} and Mn ions. SULFUR DIOXIDE; DESULFURIZATION; COAL GAS; CATALYSTS; CATIONS; IRON; MANGANESE; COPPER; ZINC; NICKEL; CHROMIUM; CATALYSIS; COAL; WATER
- 00304 NEW MODIFICATION OF THE FELD POLYTHIONATE PROCESS. Stavorinus, D. Het Gas; 51: 19-20(1931).
Removal of H_2S and NH_3 . AMMONIA; HYDROGEN SULFIDES; AMMONIUM COMPOUNDS; THIONATES; FUEL GAS; PURIFICATION; DESULFURIZATION; FELD PROCESS
- 00305 OXIDE OF IRON PURIFICATION OF COAL GAS. Clayton, R.H.; Williams, H.E.; Avery, H.B. Gas J.; 196: 311-15(1931).
35 equations for reactions occurring in gas purification with iron oxide. IRON OXIDES; COAL GAS; MOISTURE; AMMONIA; PURIFICATION
- 00306 PURIFICATION OF TOWN GAS BY MEANS OF OXIDE OF IRON. Dreverman, J. Gas J.; 193: 97-100(1931).
PURIFICATION; IRON OXIDES; FUEL GAS; HYDROGEN SULFIDES; DESULFURIZATION
- 00307 GIRDLER PROCESS FOR GAS PURIFICATION. Bottoms, R.R. Am. Gas Assoc., Proc.; 13: 1071-82(1931).
Ethanolamines as absorbers of CO_2 and H_2S . COAL GAS; PURIFICATION; DESULFURIZATION; AMINES; CARBON DIOXIDE; HYDROGEN SULFIDES; ABSORPTION
- 00308 EFFECT OF TEMPERATURE AND MOISTURE CONTENT OF [IRON] OXIDES [FOR USE IN PURIFICATION OF COAL GAS]. Reid, D.V. Gas J.; 195: 742-5(1931).
COAL; PURIFICATION; IRON OXIDES; TEMPERATURE DEPENDENCE; MOISTURE; DESULFURIZATION; HYDROGEN SULFIDES
- 00309 EFFECT OF TEMPERATURE ON IRON OXIDE PURIFICATION (RELATIVE) HUMIDITY BEING HELD CONSTANT. Uhlig, E.C. Am. Gas Assoc., Proc.; 13: 970-4(1931).
TEMPERATURE DEPENDENCE; IRON OXIDES; PURIFICATION; HYDROGEN SULFIDES; MEDIUM TEMPERATURE; DESULFURIZATION; COAL GAS
- 00310 PURIFICATION OF HIGH-SULFUR GAS. Herbst, L.J. Am. Gas Assoc., Proc.; 13: 1067-70(1931).
Description of Seaboard process. DESULFURIZATION; COAL GAS
- 00311 LIQUID PURIFICATION OF HIGH-SULFUR GAS AT THE INDIANA BY-PRODUCT GAS COMPANY, EAST CHICAGO, INDIANA. Iliff, W.K. Am. Gas Assoc., Proc.; 13: 1059-64(1931).

- Operating figures using Seaboard process. HYDROGEN SULFIDES;DESULFURIZATION;COAL GAS; ECONOMICS
- 00312 HYDROGEN SULFIDE ABSORPTION IN ALKALINE WASH LIQUORS AND THEIR REGENERATION. Pieters, H.A.J.; Smeets, G. Chem. Weekbl.; 28: 246-9(1931).
HYDROGEN SULFIDES;DESULFURIZATION;FUEL GAS; SODIUM CARBONATES;ABSORPTION;EFFICIENCY
- 00313 DETERMINATION, CONVERSION AND REMOVAL OF ORGANICALLY COMBINED SULFUR FROM GAS. Roelen, G. Brennst.-Chem.; 12: 305-12(1931).
Iron catalyst. ORGANIC SULFUR COMPOUNDS;COAL GAS;DESULFURIZATION;HYDROGEN SULFIDES;IRON; CATALYSTS;ALUMINIUM;SILVER;BIBLIOGRAPHIES
- 00314 WET PROCESS OF SULFUR REMOVAL AT THE HAMBURG GAS WORKS. Mueller, H. Z. Osterr. Ver. Gas-u. Wasserfach; 71: 229-35(1931).
Using potassium ferricyanide and potassium carbonate. DESULFURIZATION;HYDROGEN SULFIDES; FERRICYANIDES;POTASSIUM COMPOUNDS;POTASSIUM CARBONATES;SULFUR;PRODUCTION;COAL GAS
- 00315 ORIGIN AND DECOMPOSITION OF ORGANIC SULFUR COMPOUNDS UNDER GAS-MAKING CONDITIONS WITH PARTICULAR REFERENCE TO THE ROLE OF THE CARBON SULFUR INDEX. Holtz, J.C. Fuel in Science and Practice; 10: 16-30(1931).
ORGANIC SULFUR COMPOUNDS;CARBON SULFIDES; DECOMPOSITION;SYNTHETIC PETROLEUM;CRACKING
- 00316 ORGANIC BASES FOR GAS PURIFICATION. Eotoms, R.R. Ind. Eng. Chem.; 23: 501-4(1931).
PURIFICATION;HYDROGEN SULFIDES; DESULFURIZATION;CARBON DIOXIDE;AMINES; ABSORPTION;FUEL GAS
- 00317 SEPARATING ACIDIC GASES FROM MIXTURES SUCH AS COAL-, OIL-, OR WATER-GASES. Bragg, G.A. (to Koppers Co. of Delaware). US Patent 1,920,626. 1 Aug 1931.
Removal of H₂S, CO₂, and HCN from coal gases by absorption with alkali metal compound and boric acid mixture. HYDROGEN SULFIDES;CARBON DIOXIDE;HYDROCYANIC ACID;ABSORPTION;COAL GAS; ALKALI METAL COMPOUNDS;POTASSIUM HYDROXIDES; BORIC ACID;PURIFICATION;DESULFURIZATION
- 00318 GAS-PURIFYING MASSES. Giller, F.; Friedrich, L. (to I. G. Farbenindustrie AG). German(FRG) Patent 564,990. 27 Aug 1931.
Reactive oxides are mixed with binding agents, alkali bicarbonate, or NH₄HCO₃ and Fe₂O₃. GASES;PURIFICATION;OXIDES;ALKALI METAL COMPOUNDS;CARBONATES;AMMONIUM COMPOUNDS;SULFUR DIOXIDE;HYDROGEN SULFIDES;IRON OXIDES; DESULFURIZATION
- 00319 GAS PURIFICATION. (to Koppers Co.). French Patent 727,206. 26 Nov 1931.
Removal of H₂S and other impurities using Fe, Ni, and Sn group and their compounds as catalysts. COAL GAS;PURIFICATION;HYDROGEN SULFIDES;DESULFURIZATION;IMPURITIES;CATALYSTS; IRON;NICKEL;ARSENIC;IRON COMPOUNDS;NICKEL COMPOUNDS;ARSENIC COMPOUNDS
- 00320 WET PURIFICATION FOR THE REMOVAL OF SULFUR FROM GAS. Thau, A. Gas World; 96: 144-7(1932).
Oxidation of absorbed H₂S to S by alkaline solution of K₃Fe(CN)₆. COAL GAS;POTASSIUM COMPOUNDS;FERRICYANIDES;HYDROGEN SULFIDES; POTASSIUM CARBONATES;SULFUR;DESULFURIZATION; PRODUCTION
- 00321 ELIMINATION OF SULFUR AND CARBON DIOXIDE FROM COKE-OVEN GASES BY MEANS OF AMMONIA WATER UNDER PRESSURE. Korobchanskii, I.E. Coke Chem. (USSR); No. 8, 68-71(1932).
13 atm pressure. HYDROGEN SULFIDES;CARBON DIOXIDE;AMMONIA;ABSORPTION;PURIFICATION; DESULFURIZATION;COAL GAS
- 00322 PURIFICATION OF COKE GASES BY A PROCESS ANALOGOUS TO THE THYLOX METHOD, WITH SEPARATION OF ELEMENTARY SULFUR. Shabalyn; Mikhelson, E.M. J. Chem. Ind. (USSR); No. 9, 13-20(1932).
Reaction of Na₂AsO₃ with H₂S. COAL GAS; PURIFICATION;SODIUM COMPOUNDS;HYDROGEN SULFIDES; DESULFURIZATION;SULFUR;SEPARATION PROCESSES; FUEL GAS;ARSENATES
- 00323 EXTRACTION OF SULFUR FROM THE HYDROGEN SULFIDE OF COKE-OVEN AND OTHER GASES BY MEANS OF ACTIVATED CHARCOAL. Koenigstuhl, M.D. Coke Chem. (USSR); No. 7, 32-37(1932).
HYDROGEN SULFIDES;SOLVENT EXTRACTION; CATALYSTS;ACTIVATED CARBON;SULFUR;COAL GAS; OXIDATION;DESULFURIZATION
- 00324 ELIMINATION OF SULFUR COMPOUNDS FROM BOILER-FURNACE GASES. Johnstone, H.F. Proc. 3rd Intern. Conf. Bituminous Coal; 2: 576-92(1932).
Catalyzed oxidation of dissolved gas (in H₂O) using Fe and Mn ions. COAL GAS; DESULFURIZATION;WATER;SULFUR DIOXIDE;IRON; MANGANESE;CATIONS;COPPER COMPOUNDS;TIN COMPOUNDS;HYDROGEN SULFIDES;PH VALUE;OXIDATION; CATALYSTS
- 00325 PROGRESS IN THE FIELD OF DRY-GAS PURIFICATION. Kronacher, H. Wasser Gas; 23: 140-142(1932).
Use of benzene and tetralin as solvents for H₂S at high pressure. HYDROGEN SULFIDES;SOLVENT EXTRACTION;TETRALIN;BENZENE;GASES; DESULFURIZATION;HIGH PRESSURE;REMOVAL
- 00326 FERRO-AMMONIUM METHOD FOR RECOVERY OF SULFUR FROM COKE-OVEN GAS. Aronov, S.G. Coke Chem. (U.S.S.R.); No. 4, 42-48(1932).
Method for desulfurization using NH₃ and Fe(OH)₃. COAL GAS;DESULFURIZATION;HYDROGEN SULFIDES;REMOVAL;AMMONIA;IRON HYDROXIDES
- 00327 SULFUR RECOVERY FROM HYDROGEN SULFIDE OF COKE-OVEN GAS AND OTHER GASES BY MEANS OF ACTIVATED CARBON. Kenigstul, M.D. Coke and Chem.; 7: 32-7(1932). (USSR).
Using activated carbon as a catalyst only. COAL GAS;DESULFURIZATION;HYDROGEN SULFIDES; POTASSIUM NITRATES;CATALYSTS;ACTIVATED CARBON; CARBON DIOXIDE;CARBON SULFIDES
- 00328 PURIFYING FUEL GAS. Davies, C.Jr. (to Koppers Co. of Delaware). US Patent 1,942,050. 2 Jan 1932.
Removal of NH₃ and H₂S. FUEL GAS; DESULFURIZATION;PURIFICATION;REMOVAL;AMMONIA; HYDROGEN SULFIDES;IRON SULFIDES;HYDROCYANIC ACID;PRECIPITATION
- 00329 REMOVING SULFUR IMPURITIES FROM HYDROCARBON GASES AND OILS. Garrison, C.W. (to Koppers Co. of Del.). US Patent 1,942,054. 2 Jan 1932.
Removal of H₂S by countercurrent contact with an alkali carbonate solution. HYDROCARBONS; DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES; ABSORPTION;CARBONATES;SOLUTIONS
- 00330 GAS PURIFICATION. Hansen, C.J. (to Koppers Co. of Delaware). US Patent 1,944,978. 30 Jan 1932.
Removal of H₂S from coal gas by washing with NH₄ phosphate and NH₄ thionate. COAL GAS; DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES; AMMONIUM COMPOUNDS;PHOSPHATES;THIONATES
- 00331 GAS PURIFICATION. Glud, W.; Brodkorb, F.; Klempt, W. (to Gesellschaft

- fuer Kohlentechnik mbH). US Patent 1,947,983. 20 Feb 1932.
Removal of H₂S using an alkaline aqueous solution of iron hydroxide. GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; IRON HYDROXIDES; SUSPENSIONS; AMMONIUM COMPOUNDS; SOLUTIONS
- 00332 APPARATUS FOR PRODUCING AND PURIFYING GAS. Huff, W.J.; Logan, L.; Lusby, O.W. US Patent 1,947,778. 20 Feb 1932.
Removal of S using Cr or V in promoter association with Cu, Ag, Fe, Ni, Co, Pb, Sn, Sb, or their oxides. PROMOTERS; GASES; DESULFURIZATION; REMOVAL; SULFUR; CHROMIUM; VANADIUM; COPPER; SILVER; IRON; NICKEL; COBALT; LEAD; TIN; ANTIMONY; COPPER OXIDES; SILVER OXIDES; IRON OXIDES; NICKEL OXIDES; COBALT OXIDES; LEAD OXIDES; TIN OXIDES; ANTIMONY OXIDES; CATALYSTS
- 00333 GAS PURIFICATION. Huff, W.J.; Lusby, O.W. US Patent 1,947,776. 20 Feb 1932.
Removal of H₂S and organic sulfur compounds by passing over absorbent containing Cu and Cr or U. GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; ORGANIC SULFUR COMPOUNDS; COPPER; CHROMIUM; URANIUM; OXIDATION; REDUCTION
- 00334 CONVERSION OF COAL SULFUR TO VOLATILE SULFUR COMPOUNDS DURING CARBONIZATION IN STREAMS OF GASES. Snow, R.D. Ind. Eng. Chem.; 24: 903-9(Aug 1932).
From 83. ACS Meeting; New Orleans, LA (28 Mar-1 Apr 1932).
Sulajr elimination with various gases at 1000°C. COAL; DESULFURIZATION; REMOVAL; SULFUR; CARBONIZATION; VERY HIGH TEMPERATURE; NITROGEN; CARBON DIOXIDE; CARBON MONOXIDE; METHANE; ETHYLENE; WATER GAS; AMMONIA; HYDROGEN; STEAM; HYDROCHLORIC ACID
- 00335 GAS PURIFICATION. Gollmar, H.A. (to Koppers Co. of Delaware). US Patent 1,924,185. 29 Aug 1932.
Treatment with aqueous solution of As₂O₃ and Na₂CO₃. ARSENIC OXIDES; SODIUM CARBONATES; HYDROGEN SULFIDES; DESULFURIZATION; GASES
- 00336 GAS PURIFICATION. Sperr, F.W. Jr. (to Koppers Co. of Delaware). US Patent 1,928,509. 29 Sep 1932.
Wash in ammoniacal absorbent liquid, exposure of resulting liquid to air in presence of Fe, Co, or Ni compounds as catalysts. GASES; HYDROGEN SULFIDES; AMMONIA; AIR; CATALYSTS; IRON COMPOUNDS; COBALT COMPOUNDS; NICKEL COMPOUNDS; DESULFURIZATION
- 00337 REMOVING SULFUR OXIDES FROM FLUE GASES CONTAINING FREE OXYGEN. Hodsmen, H.J.; Taylor, A. (to W. C. Holmes and Co. Ltd.). US Patent 1,931,408. 17 Oct 1932.
Using aqueous solutions containing NH₃. FLUE GAS; DESULFURIZATION; SULFUR OXIDES; REMOVAL; AQUEOUS SOLUTIONS; AMMONIA
- 00338 REMOVING HYDROGEN SULFIDE FROM NATURAL OR OTHER GASES. Ford, G.M.; Schoenwald, O.H. US Patent 1,930,875. 17 Oct 1932.
Using aqueous solution of NaCl containing dissolved Ca(OH)₂. NATURAL GAS; GASES; DESULFURIZATION; HYDROGEN SULFIDES; REMOVAL; SODIUM CHLORIDES; CALCIUM HYDROXIDES; AQUEOUS SOLUTIONS
- 00339 TREATING COAL. Rose, H.J.; Hill, W.H. (to Koppers Co. of Delaware). US Patent 1,932,535. 31 Oct 1932.
Precipitation of organic S with Cu, Pb, their oxides, or CaO. COAL; DESULFURIZATION; PRECIPITATION; COPPER; LEAD; COPPER OXIDES; LEAD OXIDES; CALCIUM OXIDES; ORGANIC SULFUR COMPOUNDS; REMOVAL
- 00340 REMOVAL OF HYDROGEN SULFIDE AND AMMONIA FROM GASES. Hansen, C.J. (to Koppers Co. of Delaware). US Patent 1,932,820. 31 Oct 1932.
By washing with a suspension of Fe hydroxide followed by washing with a solution of Fe thionate in the presence of part of the NH₃ previously separated. GASES; DESULFURIZATION; PURIFICATION; REMOVAL; HYDROGEN SULFIDES; AMMONIA; IRON HYDROXIDES; IRON COMPOUNDS; THIOLS
- 00341 GAS PURIFICATION. Carvlin, G.M. (to Koppers Co. of Delaware). US Patent 1,932,812. 31 Oct 1932.
Removal of acidic constituents and sulfur using Na compounds and As compounds. GASES; WATER GAS; DESULFURIZATION; PURIFICATION; SODIUM COMPOUNDS; ARSENIC COMPOUNDS; CRYSTALLIZATION; THIOSULFATES
- 00342 MATERIAL FOR GAS PURIFICATION. Smyly, A.L. US Patent 1,934,242. 7 Nov 1932.
Removal of impurities from gas containing H₂S using Fe oxide-coated rigid paper pulp wood chips. GASES; DESULFURIZATION; PURIFICATION; IRON OXIDES; HYDROGEN SULFIDES; REMOVAL; WOOD
- 00343 GAS PURIFICATION. Bragg, G.A. (to Koppers Co. of Delaware). US Patent 1,936,570. 28 Nov 1932.
Removal of H₂S, HCN, and CO₂ using hydrocarbon oil. GASES; PURIFICATION; REMOVAL; HYDROGEN SULFIDES; HYDROCYANIC ACID; CARBON DIOXIDE; OILS
- 00344 PURIFYING GAS FROM HYDROGEN SULFIDE. Gollmar, H.A. (to Koppers Co. of Delaware). US Patent 1,937,196. 28 Nov 1932.
By absorption using an alkaline absorbent liquid. GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; ABSORPTION; SULFUR OXIDES; SODIUM COMPOUNDS; THIOSULFATES
- 00345 ABSORBABILITY OF LUXMASSE, BOG IRON ORE, THEIR MIXTURES AND OTHER IRON OXIDES FOR HYDROGEN SULFIDE. Mainz; Muehlendyck. Brennst.-Chem.; 14: 50-54(1933).
IRON OXIDES; LUXMASSE; HYDROGEN SULFIDES; ABSORPTION; DESULFURIZATION; GASES; REMOVAL
- 00346 ACTION OF HYDROGEN SULFIDE ON COMMERCIAL OXIDES OF IRON. Damon, W.A. Ann. Rep. Alkali Works, 69th; 25-34(1933).
HYDROGEN SULFIDES; IRON OXIDES; DESULFURIZATION; ABSORPTION; SORPTIVE PROPERTIES
- 00347 MAKING SULFUR RECOVERY FROM FLUE GASES AN ECONOMIC PROCESS. Steam Eng.; 2: 534-536(1933).
Removal of SO₂ by washing with milk of lime. FLUE GAS; DESULFURIZATION; SULFUR DIOXIDE; REMOVAL; CALCIUM OXIDES; WATER
- 00348 REMOVAL OF AMMONIA AND HYDROGEN SULFIDE FROM GAS BY MEANS OF THIONATE SOLUTIONS. Hansen, C.J.; Werres, H.; Hiller, G.; Voituret, K. Chem. Ztg.; 57: 361-363; 382-383(1933).
AMMONIA; HYDROGEN SULFIDES; PURIFICATION; DESULFURIZATION; AMMONIUM COMPOUNDS; THIONATES; IRON COMPOUNDS; COAL GAS; REMOVAL
- 00349 REMOVAL OF HYDROGEN SULFIDE FROM HIGH-SULFUR GASES. Wilson, P.J. Jr. Refiner Nat. Gasoline Mfr.; 12: 256(1933).
Triethanolamine; Na phenolate. HYDROGEN SULFIDES; DESULFURIZATION; AMINES; ALCOHOLS; COMPARATIVE EVALUATIONS; SODIUM COMPOUNDS; PHENOLS; ABSORPTION; GASES
- 00350 OXIDATION OF PYRITIC SULFUR IN BITUMINOUS COAL. Nelson, H.W.; Snow, R.D.; Keyes, D.B. Ind. Eng. Chem.; 25: 1355-1358(1933).
Effects of temperature, airflow (O) rate,

- and size of coal particles. BITUMINOUS COAL; COAL; DESULFURIZATION; OXIDATION; SULFUR; TEMPERATURE DEPENDENCE; IRON SULFATES; IRON COMPOUNDS; CATIONS; CHLORINE; GASES; ORGANIC SULFUR COMPOUNDS
- 00351 COLD-WARM TUBE PRINCIPLE APPLIED TO THE DRY PURIFICATION AND DESULFURIZATION OF COAL GAS. Pott, A.; Broche, H.; Thomas, H. Glueckauf; 69: 1153-1159(1933).
Removal of H_2S using Fe_2O_3 . COAL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; IRON OXIDES; MEDIUM TEMPERATURE
- 00352 ABSORPTION OF HYDROGEN SULFIDE FROM GAS AND SULFUR RECOVERY WITH ARSENIC SALTS SOLUTION. Aronov, S.G. Coke Chem. (USSR); No. 3, 47-52(1933).
 Na_3AsO_3 . GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; ARSENIC OXIDES; SODIUM CARBONATES; MEDIUM TEMPERATURE
- 00353 DESULFURIZATION OF INDUSTRIAL GASES WITH RECOVERY OF ELEMENTARY SULFUR. I. Hoffiman, M.V.; Aronov, S.G. Coke Chem. (USSR); No. 1, 41-50(1933).
Iron-soda process for elementary S recovery. GASES; DESULFURIZATION; SODIUM CARBONATES; IRON HYDROXIDES; SUSPENSIONS; REMOVAL; HYDROGEN SULFIDES; CHEMICAL REACTIONS
- 00354 DESULFURIZATION OF INDUSTRIAL GASES WITH RECOVERY OF ELEMENTARY SULFUR. II. IRON-AMMONIACAL METHOD. Hoffiman, M.V.; Aronov, S.G.; Senichenko, S.E.; Khvat, M.V. Coke Chem. (USSR); No. 2, 47-53(1933).
Iron-ammoniacal method for elementary S recovery. GASES; DESULFURIZATION; IRON HYDROXIDES; SODIUM HYDROXIDES; REMOVAL; HYDROGEN SULFIDES; SUSPENSIONS; AMMONIUM COMPOUNDS; HYDROXIDES
- 00355 DESIGN OF PURIFIERS FOR THE REMOVAL OF HYDROGEN SULFIDE FROM TOWN GAS BY IRON OXIDE. Proteus. Gas J.; 202: 922-924(1933).
HYDROGEN SULFIDES; IRON OXIDES; TOWN GAS; DESULFURIZATION
- 00356 PURIFICATION OF GASES. Dayhuff, W. Schweiz. Ver. Gas-Wasserfach. Monats-Bull.; 13: 285-293(1933).
Review of desulfurization methods (H_2S and CS_2 removal). GASES; DESULFURIZATION; REMOVAL; SULFUR; HYDROGEN SULFIDES; CARBON SULFIDES; COOLING; DEHYDRATION; NAPHTHALENE; CALCIUM CHLORIDES
- 00357 REMOVAL OF SULFUR FROM COAL GAS BY THE THYLOX PROCESS. Koch, E. Stahl Eisen; 53: 1301-5(1933).
Economics of desulfurization by Thylox process. COAL GAS; DESULFURIZATION; THYLOX PROCESS; THIOCYANATES; IRON OXIDES; COST
- 00358 FREEING INDUSTRIAL GASES FROM HYDROGEN SULFIDE WITH RECOVERY OF ELEMENTAL SULFUR. Hoffiman, M.V.; Aronov, S.G.; Mikhel'son, E.M. Coke and Chem. (USSR); No. 5-6, 49-55(1933).
Using an alkaline solution of As_2O_3 . GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; ARSENIC OXIDES
- 00359 REMOVAL OF SULFUR FROM GASES AND PRODUCTION OF SODIUM SULFIDE. Balint, I. Hungarian Patent 105,323. 1 Mar 1933.
Wash with alkaline solution then lime and sodium sulfate or carbonate. SULFUR; DESULFURIZATION; GASES; CALCIUM OXIDES; SODIUM CARBONATES; SODIUM SULFATES
- 00360 REMOVING AMMONIA AND HYDROGEN SULFIDE FROM GAS MIXTURES. Baehr, H. (to I. G. Farbenindustrie AG). German(FRG) Patent 575,134. 24 Apr 1933.
Catalytic oxidation of H_2S to SO_2 then washing with $(NH_4)_2S_2O_8$, $(NH_4)_2SO_3$, or NH_4HSO_3 . AMMONIA; HYDROGEN SULFIDES; OXIDATION; CATALYSIS; AMMONIUM COMPOUNDS; THIONATES; PURIFICATION; DESULFURIZATION; COAL GAS; REMOVAL; THIOSULFATES
- 00361 SEPARATING WEAK ACIDS FROM WATER GAS, ETC. (to I. G. Farbenindustrie AG). British Patent 391,780. 1 May 1933.
Separation of H_2S , CO_2 , and HCN from water gas, etc. by washing with salts of strong bases and sulfonic or carboxylic acids. HYDROGEN SULFIDES; CARBON DIOXIDE; HYDROCYANIC ACID; SODIUM HYDROXIDES; POTASSIUM HYDROXIDES; LITHIUM HYDROXIDES; BARIUM HYDROXIDES; CALCIUM HYDROXIDES; STRONTIUM HYDROXIDES; MAGNESIUM HYDROXIDES; BERYLLIUM HYDROXIDES; SODIUM OXIDES; POTASSIUM OXIDES; LITHIUM OXIDES; BARIUM OXIDES; CALCIUM OXIDES; STRONTIUM OXIDES; MAGNESIUM OXIDES; BERYLLIUM OXIDES; SULFONIC ACIDS; CARBOXYLIC ACIDS; WATER GAS; DESULFURIZATION; PURIFICATION
- 00362 PURIFYING COAL GAS, ETC. Overdick, F. (to I. G. Farbenindustrie AG). German(FRG) Patent 576,162. 8 May 1933.
Removal of HCN, H_2S , and NH_3 by washing with $(NH_4)_2S_2O_8$ and $(NH_4)_2S_4O_6$. COAL GAS; PURIFICATION; AMMONIUM COMPOUNDS; THIONATES; HYDROGEN SULFIDES; AMMONIA; SULFATES; DESULFURIZATION; HYDROCYANIC ACID; REMOVAL; THIOSULFATES
- 00363 RECOVERY OF SULPHUR DIOXIDE FROM GASES. Clark, A.M. (to Imperial Chemical Industries Ltd., London (England)). US Patent 1,908,731. 16 May 1933. Filed date 4 May 1932. 1p.
Solvents used are aqueous solutions of alkali hydroxides or alkali sulfites; aluminium chloride is used to increase SO_2 recovery. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; CHEMISORPTION; AQUEOUS SOLUTIONS; HYDROXIDES; SULFITES; ALUMINIUM CHLORIDES; PH VALUE
- 00364 DESULFURIZING GASES AND VAPORS. Baehr, H. (to I. G. Farbenindustrie AG). German(FRG) Patent 583,387. 2 Sep 1933.
Effectiveness of Sn, Pb, Cu, Zn, or Cr, or their oxides or salts as catalysts. GASES; DESULFURIZATION; HYDROGEN SULFIDES; ORGANIC SULFUR COMPOUNDS; REMOVAL; CATALYSTS; TIN; LEAD; COPPER; ZINC; CHROMIUM; TIN OXIDES; LEAD OXIDES; COPPER OXIDES; ZINC OXIDES; CHROMIUM OXIDES
- 00365 GAS-PURIFYING COMPOSITIONS. (to I. G. Farbenindustrie AG). British Patent 300,387. 26 Oct 1933.
Desulfurization using a mixture of hydrated Fe oxide with a binding agent in the presence of an alkali metal bicarbonate and H_2O . GASES; DESULFURIZATION; HYDRATION; IRON OXIDES; METALS; CARBONATES; WATER; CEMENTS; CALCIUM OXIDES; GYPSUM; AMMONIUM COMPOUNDS
- 00366 REMOVAL OF AMMONIA AND HYDROGEN SULFIDE FROM GAS SUCH AS COAL-DISTILLATION GAS. Hansen, C.J. (to Koppers Co. of Delaware). US Patent 1,979,934. 6 Nov 1933.
Three stage purification using NH_4 polythionate. GASES; DESULFURIZATION; PURIFICATION; REMOVAL; AMMONIA; HYDROGEN SULFIDES; SOLUTIONS; AMMONIUM COMPOUNDS; THIONATES
- 00367 DESULFURIZING GASES. Bahr, H. (to I.G. Farbenindustrie). German(FRG) Patent 587,797. 9 Nov 1933.
Removal of H_2S by catalytic conversion to SO_2 and subsequent treatment with NH_3 . GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; CATALYSTS; SULFUR OXIDES; AMMONIA; AMMONIUM COMPOUNDS; SULFUR COMPOUNDS; OXYGEN COMPOUNDS
- 00368 REMOVING HYDROGEN SULFIDE FROM COAL GAS. Hultman, Gustaf H. German(FRG) Patent 589,032. 1 Dec 1933.
Using an alkali carbonate solution. COAL GAS;

- DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;
CARBONATES
- 00369 REMOVAL OF ORGANIC SULFUR COMPOUNDS
FROM HYDROCARBON MIXTURES. Fekete, D.
Hungarian Patent 107,609. 15 Dec 1933.
Treatment with nascent H at 360 to 410° and
50 atm using FeS₂ as a catalyst. HYDROCARBONS;
DESULFURIZATION;ORGANIC SULFUR COMPOUNDS;HIGH
TEMPERATURE;MEDIUM PRESSURE;CATALYSTS;IRON
SULFIDES;HYDROGEN;IRON CHLORIDES;SOLUTIONS;
HYDROGENATION;REMOVAL
- 00370 PURIFYING GASES. (to I. G.
Farbenindustrie AG). French Patent 757,745.
30 Dec 1933.
By washing with aqueous solutions of amines,
hydroxyalkylamines, salts of amino acids, and
alkaline solutions of phenols. GASES;
DESULFURIZATION;PURIFICATION;REMOVAL;HYDROGEN
SULFIDES;AMMONIA;SULFUR OXIDES;AQUEOUS
SOLUTIONS;AMINES;HYDROXY COMPOUNDS;AMINO ACIDS;
PHENOLS
- 00371 NEW GAS SULFUR PURIFICATION PROCESS.
Thau. A. Gas-Wasserfach; 77: 33-35(1934).
Removal of H₂S in tower purifiers containing
porous balls of Fe hydroxide. GASES;
DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;
EXTRACTION COLUMNS;IRON HYDROXIDES;COST
- 00372 CHEMISTRY OF THE THYLOX GAS-
PURIFICATION PROCESS. Gollmar, H.A. Ind.
Eng. Chem.; 26: 130-2(1934). (USA).
H₂S removal using NH₄, thioarsenate. GASES;
DESULFURIZATION;THYLOX PROCESS;AMMONIUM
COMPOUNDS;ARSENIC COMPOUNDS;SULFUR COMPOUNDS;
ARSENIC SULFIDES;SULFUR;PRECIPITATION;
HYDROCYANIC ACID;SODIUM COMPOUNDS;THIOCYANATES;
HYDROGEN SULFIDES;REMOVAL
- 00373 REMOVING SULFUR DIOXIDE FROM FLUE
GASES. Gaberman, B.G. Khim. Tverd. Topl.; 5:
736-40(1934).
Washing with aqueous MnO₂ and Mn ions. FLUE
GAS;DESULFURIZATION;PEAT;COMBUSTION;WATER;
SULFUR DIOXIDE;REMOVAL;MANGANESE OXIDES;
MANGANESE COMPOUNDS
- 00374 DESULFURIZATION OF GENERATOR GAS BY
TREATMENT OF COAL WITH MILK OF LIME. Bozic,
B. Arhiv Hem. Farm.; 8: 127-9(1934).
Using hydrogen from coal distillation. COAL;
DISTILLATION;PRODUCTION;HYDROGEN;
DESULFURIZATION;COAL GAS;HIGH TEMPERATURE;
ETHYLENE;ACETYLENE
- 00375 REMOVING SULFUR DIOXIDE FROM FLUE GASES
WITH MOIST LIMESTONE. Zalogin, N.G.; Chernov,
E.N. Izvestiya Teplotekh. Inst.; No. 10, 46-
51(1934).
FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR
DIOXIDE;WATER;LIMESTONE
- 00376 DESULFURIZATION BY MEANS OF DESTRUCTIVE
HYDROGENATION. Moldavskii, B.L. Destructive
Hydrogenation of Fuels, O. N. T. I.
Goskhimtekhnizdat (Leningrad); 1: 168-82(1934).
Review; 61 references. COAL;HYDROGENATION;
DESULFURIZATION;REVIEWS
- 00377 REMOVAL OF HYDROGEN SULFIDE FROM COAL
GAS, PARTICULARLY BY LIQUID PURIFICATION.
Pieters, H.A.J.; Peuners, K. Het Gas; 54:
304-8(1934).
COAL GAS;DESULFURIZATION;REMOVAL;HYDROGEN
SULFIDES;IRON OXIDES;ACTIVATED CARBON;THYLOX
PROCESS;REVIEWS
- 00378 ABSORPTION OF SULFUR DIOXIDE FROM FLUE
GASES. Keyes, D.B. Chemistry and Industry;
692-5(1934).
Iron sulfate and manganese sulfate as
catalysts. SULFUR DIOXIDE;FLUE GAS;
- DESULFURIZATION;IRON SULFATES;MANGANESE
SULFATES;AMMONIUM HYDROXIDES
- 00379 ECONOMICS OF DRY AND WET
DESULFURIZATION OF GAS. Rettenmaier, A.
Glueckauf; 70: 228-32(1934).
Economic advantage of dry process over
Thylox (wet) process. GASES;DESULFURIZATION;
THYLOX PROCESS;COMPARATIVE EVALUATIONS;
ECONOMICS
- 00380 PREPARATION OF SULFUR FROM COKE GAS BY
A METHOD ANALOGOUS TO THE THYLOX PROCESS ON A
SEMI-FACTORY SCALE IN ENAKIEVO. Hofman, M.V.;
Aronov, S.G.; Mikhel'son, E.M. J. Chem. Ind.
(Moscow); No. 8, 17-23(1934).
Desulfurization of coke gas using As₂O₃ and
NaOH. COAL GAS;DESULFURIZATION;ARSENIC OXIDES;
SODIUM HYDROXIDES;AMMONIUM HYDROXIDES;MEDIUM
TEMPERATURE;HYDROGEN SULFIDES;REMOVAL
- 00381 WET PROCESS FOR THE REMOVAL OF HYDROGEN
SULFIDE FROM COKE-OVEN GAS. Smith, F.F.;
Pryde, D.R. Gas World; 44-6(1934).
Scrubbing with a suspension of (NH₄)₂FeCN₆.
HYDROGEN SULFIDES;COAL GAS;PURIFICATION;
DESULFURIZATION;AMMONIUM COMPOUNDS;
FERROCYANIDES;OXIDATION;SULFURIC ACID;
PRODUCTION;SULFUR
- 00382 PROPERTIES AND BEHAVIOR OF PURIFYING
MATERIAL IN DRY PURIFICATION OF GAS. Pott, A.;
Broche, H.; Thomas, H. Glueckauf; 70: 101-
6(1934).
Review of literature on dry purification.
PURIFICATION;HYDROGEN SULFIDES;DESULFURIZATION;
REVIEWS;IRON HYDROXIDES;CALCIUM CARBONATES;
ABSORPTION;GASES
- 00383 DESULFURIZING FUEL-DISTILLATION GASES,
ETC. (to C. Otto and Co. GmbH). German(FRG)
Patent 590,287. 10 Jan 1934.
Removal of H₂S from low NH₃-containing gases
by washing with polythionate solution. GASES;
DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;
SULFUR OXIDES;AMMONIA;SOLUTIONS;THIONATES
- 00384 REMOVING HYDROGEN SULFIDE, ETC., FROM
GASEOUS MIXTURES. Shaw, J.A. (to Koppers
Co. of Del.). US Patent 2,028,124. 14 Jan
1934.
Scrubbing with concentrated aqueous solution
of alkali metal salt of phenol. COAL GAS;
DESULFURIZATION;HYDROGEN SULFIDES;REMOVAL;
ALKALI METAL COMPOUNDS;PHENOLS
- 00385 SEPARATING HYDROGEN SULFIDE FROM
GASEOUS MIXTURES. Baehr, H.; Mengdehl, H.
(to I.G. Farbenind. A.-G.). US Patent
1,990,217. 5 Feb 1934.
Binding of H₂S by strong inorganic bases in
combination with an organic acid. GASES;
DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;BASES;
ORGANIC ACIDS;ELECTROLYTES
- 00386 REMOVING HYDROGEN SULFIDE FROM FUEL
GAS. Leahy, M.J. US Patent 1,995,545. 26
Mar 1934.
By contact with a solution of two
electrolytes such as H₃PO₄ and (NH₄)₂SO₄. FUEL
GAS;DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;
PHOSPHORIC ACID;AMMONIUM COMPOUNDS;SULFATES;
SOLUTIONS;ELECTROLYTES;PRECIPITATION;SULFUR
- 00387 METHOD OF SEPARATING SULPHUR FROM
SULPHUR DIOXIDE. Ahlgvist, H. US Patent
1,955,722. 24 Apr 1934. Filed date 7 Oct
1931. 3p.
Desulfurization of flue gases. FLUE GAS;
DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;CHEMICAL
REACTIONS;HYDROGEN SULFIDES;REGENERATION;SULFUR
- 00388 REMOVING HYDROGEN SULFIDE FROM GASES
ALSO CONTAINING AMMONIA SUCH AS COAL-

- DISTILLATION GASES. Eymann, C. (to Koppers Co. of Delaware). US Patent 2,002,365. 21 May 1934.
By treatment with a solution of alkali—S—As compounds and subsequent treatment with NH_4HSO_3 . GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; SULFUR COMPOUNDS; ARSENIC COMPOUNDS; AMMONIUM COMPOUNDS; SULFATES; THIONATES
- 00389 REMOVING CARBON DIOXIDE, HYDROGEN SULFIDE, ETC., FROM GASEOUS MIXTURES SUCH AS COAL GAS, NATURAL GAS. Shoeld, M. (to Koppers Co. of DE). US Patent 2,002,357. 21 May 1934.
Using a solution of a compound of an alkali-forming metal and a phenol in properties to form an immiscible phase in the absorbent liquid. COAL GAS; NATURAL GAS; DESULFURIZATION; PURIFICATION; REMOVAL; HYDROGEN SULFIDES; CARBON DIOXIDE
- 00390 DESULFURIZING COAL-DISTILLATION GASES. Broche, H. US Patent 2,007,741. 9 Jul 1934.
By passage through Fe-containing purifying materials. COAL GAS; DESULFURIZATION; IRON COMPOUNDS; TITRATION
- 00391 REMOVING CARBON DIOXIDE AND HYDROGEN SULFIDE FROM GASES. Metallges. German (FRG) Patent 604,294. 18 Oct 1934.
By washing with water under 10-20 atmospheres pressure, then reducing pressure to 1.5 atm allowing H_2S and CO_2 to evolve. GASES; PURIFICATION; DESULFURIZATION; REMOVAL; CARBON DIOXIDE; HYDROGEN SULFIDES; WATER; MEDIUM PRESSURE
- 00392 REMOVING SULFUR DIOXIDE FROM FLUE GASES. Goodeve, C.F. US Patent 2,021,548. 19 Nov 1934.
Treatment with acid solution of iron sulfate and then with alkaline suspension of iron hydroxide. SULFUR DIOXIDE; FLUE GAS; REMOVAL; PURIFICATION; IRON SULFATES; IRON HYDROXIDES; DESULFURIZATION
- 00393 REMOVING HYDROGEN SULFIDE FROM GASEOUS MIXTURES. Lincoln, B.H. (to Continental Oil Co.). US Patent 2,021,865. 19 Nov 1934.
Contacting the gas with sulfurous acid in presence of activated carbon. FLUE GAS; HOMOGENEOUS MIXTURES; HYDROGEN SULFIDES; SULFUROUS ACID; ACTIVATED CARBON; REMOVAL; SULFUR; DESULFURIZATION
- 00394 REMOVING SULFUR DIOXIDE FROM FLUE GASES. Johnstone, H.F. (to Board of Trustees of the Univ. of Ill.). US Patent 2,021,936. 26 Nov 1934.
Wash with solution containing ferric and Mn ions as catalysts to increase the oxidation of SO_2 to H_2SO_4 . SULFUR DIOXIDE; FLUE GAS; REMOVAL; PURIFICATION; CATALYSTS; OXIDATION; IRON COMPOUNDS; MANGANESE COMPOUNDS; CATIONS; SOLUTIONS; SULFURIC ACID; DESULFURIZATION
- 00395 FREEING GASES FROM SULFUR COMPOUNDS. Sexauer, W. (to Gastechnik G.m.b.H.). US Patent 2,024,393. 17 Dec 1934.
Sulfur absorption by compounds such as ferric hydroxides. SULFUR; REMOVAL; DESULFURIZATION; GASES; IRON HYDROXIDES; COAL GAS
- 00396 REMOVING HYDROGEN SULFIDE FROM FUEL GASES. Rembashevskii, A.G.; Morozov, V.V. USSR Patent 40,496. 31 Dec 1934.
Treatment with solution of NH_4HSO_4 in H_2SO_4 bath. HYDROGEN SULFIDES; COAL GAS; REMOVAL; DESULFURIZATION
- 00397 PRODUCTION OF THE HYDROCARBON OILS FROM INDUSTRIAL GASES. I. Aicher, A.; Middleton, Wm. W.; Walker, J. J. Soc. Chem. Ind.; 54: 313-20T(1935).
Removal of S in production of hydrocarbon oils from CO and H. HYDROCARBONS; OILS; CARBON MONOXIDE; ORGANIC SULFUR COMPOUNDS; HYDROGENATION; COPPER OXIDES; LEAD COMPOUNDS; CHROMATES; ETHANOL; SILICATES; CATALYSTS; PRODUCTION; DESULFURIZATION; SULFUR; REMOVAL
- 00398 RECOVERY OF SULFUR DIOXIDE FROM WASTE GASES. Johnstone, H.F. Ind. Eng. Chem.; 27: 587-93(1935).
Scrubbing with ammonia solution. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; SCRUBBING; SOLUTIONS; AMMONIA; CHEMISORPTION
- 00399 REMOVAL OF ORGANIC SULFUR COMPOUNDS FROM MANUFACTURED GAS. Trutnovsky, H. Gas-Wasserfach; 78: 462-5(1935).
Using Ni borings or turnings as catalyst. GASES; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; CATALYSTS; NICKEL; HIGH TEMPERATURE
- 00400 REMOVAL OF SULFUR FROM COAL GAS. Thau, A. Chem. Ztg.; 59: 193-5(1935).
COAL GAS; DESULFURIZATION; REVIEWS
- 00401 REMOVAL OF SULFUR FROM CHIMNEY GASES. Brownlie, D. Steam Engr.; 4: 331-3(1935).
Comparison of lime wash, lime sludge, and dilute NH_4OH or H_2O containing Mn salts methods. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR; CALCIUM OXIDES; AMMONIUM HYDROXIDES; MANGANESE COMPOUNDS
- 00402 REMOVING SULFUR DIOXIDE FROM FUEL GAS. Nechaeva, N. Novosti Tekhniki, Ser. Gorno-Rudnaya Prom.; 1935: No. 41-2, 13(1935).
Use of high-frequency electric discharge. SULFUR DIOXIDE; REMOVAL; OXIDATION; FUEL GAS; DESULFURIZATION; ELECTRIC DISCHARGES
- 00403 SOME EXPERIENCES IN THE PURIFICATION OF COKE-OVEN GAS. Marshall, J.R. Gas World; 102: No. 2652 Coking Sect., 58-60(1935).
 H_2S removal in oxide boxes. COAL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; OXIDES
- 00404 ELIMINATION OF SULFUR DURING CARBONIZATION OF COAL. Woolhouse, T.G. Fuel; 14: 259-95(1935).
SULFUR; REMOVAL; COAL; CARBONIZATION; DESULFURIZATION; ORGANIC SULFUR COMPOUNDS; VERY HIGH TEMPERATURE; HIGH TEMPERATURE
- 00405 SULFUR FROM COKE GENERATOR GASES. Yashunskaya, F. J. Chem. Ind. (Moscow); 12: 451-63(1935).
GASES; DESULFURIZATION; REVIEWS
- 00406 THE USE OF ACTIVATED CARBON IN TECHNICAL PROCESSES FOR PURIFICATION OF GASES FROM HYDROGEN SULFIDE WITH RECOVERY OF THE SULFUR. Khrenova, M. Voennaya Khim.; No. 2, 21-4(1935).
ACTIVATED CARBON; HYDROGEN SULFIDES; REMOVAL; SULFUR; DESULFURIZATION; OXIDATION; GASES
- 00407 PURIFICATION OF GASOLINES FROM PRIMARY TARS BY FERRIC CHLORIDE. Kuruindin, K.S.; Kochneva, M.P. Khim. Tverd. Topl.; 6: 647-55(1935).
GASOLINE; PURIFICATION; TAR; REMOVAL; IRON CHLORIDES; DISTILLATION; ANTIOXIDANTS
- 00408 POSITION OF THE PROBLEM OF THE REMOVAL OF POISONS FROM GAS. Mueller, W.J. Oesterr. Chem.-Ztg.; 38: 81-6(1935).
Removal of CO and organic sulfur. GASES; DESULFURIZATION; PURIFICATION; REMOVAL; CARBON MONOXIDE; ORGANIC SULFUR COMPOUNDS; HYDROGEN SULFIDES; CATALYSTS; HIGH TEMPERATURE
- 00409 CONTROL OF ALKALINITY IN DRY-BOX PURIFICATION. Murphy, E.J. Am. Gas J.; 142: No. 6, 37-40(1935).

- Effects on removal of HCN and S. GASES; DESULFURIZATION; PURIFICATION; REMOVAL; HYDROCYANIC ACID; SULFUR; AMMONIA; PH VALUE
- 00410 GAS PURIFICATION. Hollings, H.; Hutchison, W.K. J. Inst. Fuel; 8: 360-71(1935).
Review on primary processes of purification of coal gas. COAL GAS; PURIFICATION; DESULFURIZATION; HYDROGEN SULFIDES; AMMONIA; WATER VAPOR; COAL TAR; REMOVAL
- 00411 ROSTIN PROCESSES FOR DESULFURIZING GAS AND FOR REFINING COAL GAS AND BENZENE. Thau, A. Glueckauf; 71: 298-304(1935).
Removal of H₂S by bubbling through NH₄OH which is circulated over CuO. COAL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; AMMONIUM HYDROXIDES; COPPER OXIDES; ORGANIC SULFUR COMPOUNDS; ORES; REFINING
- 00412 PURIFICATION OF GASES CONTAINING HYDROGEN SULFIDE BY ACTIVE CHARCOAL. Tyulyukov, A.; Khrenova, M. J. Chem. Ind. (Moscow); 12: 247-54(1935).
GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; ACTIVATED CARBON; AMMONIUM COMPOUNDS; SULFIDES
- 00413 OXIDIZING HYDROGEN SULFIDE IN PRESENCE OF OTHER GASES. Voigt, W. German(FRG) Patent 608,241. 18 Jan 1935.
At 200 to 350° using catalysts such as Pt, Fe, Ag, Cu, or V, or an oxide or salt thereof. GASES; DESULFURIZATION; OXIDATION; REMOVAL; HYDROGEN SULFIDES; MEDIUM TEMPERATURE; HIGH TEMPERATURE; CATALYSTS; PLATINUM; IRON; SILVER; COPPER; VANADIUM; PLATINUM OXIDES; IRON OXIDES; SILVER OXIDES; COPPER OXIDES; VANADIUM OXIDES
- 00414 DESULFURIZATION AND DESTRUCTIVE HYDROGENATION OF PITCH, ETC. Steffen, E. (to Ges. fuer Teerverwertung m. b. H.). German(FRG) Patent 608,465. 24 Jan 1935.
At 440° and 75 atmospheres pressure using CaC₂ mixed with KOH as catalyst. COAL TAR; PITCHES; HYDROGENATION; DESULFURIZATION; HIGH TEMPERATURE; MEDIUM PRESSURE; CATALYSTS; CALCIUM CARBIDES; POTASSIUM HYDROXIDES; MIXTURES
- 00415 WASHING AND PURIFYING FLUE GASES. Wilton, T.O.; Wilton, N.; Green, H.E.J.; Mann, H.C. US Patent 2,073,039. 9 Mar 1935.
Removal of SO₂ and SO₃ in two stages using milk of lime. FLUE GAS; SULFUR DIOXIDE; DESULFURIZATION; EQUIPMENT; REMOVAL; CALCIUM HYDROXIDES; SULFUR OXIDES
- 00416 PURIFYING GASES. Farbenind, I.G. French Patent 778,182. 11 Mar 1935.
Removal of NH₃ and H₂S by washing with H₂SO₄ and subsequent treatment with an aqueous solution of monoethanolamine. GASES; DESULFURIZATION; PURIFICATION; REMOVAL; AMMONIA; HYDROGEN SULFIDES; SULFURIC ACID; AMINES
- 00417 DECOMPOSING SULFUR COMPOUNDS IN GASES AND IN BYPRODUCTS THEREFROM. Baker, H. British Patent 426,153. 28 Mar 1935.
Removal of fixed or organic S by treatment with H₂ internally generated. COAL GAS; WATER GAS; DESULFURIZATION; REMOVAL; SULFUR COMPOUNDS; ORGANIC SULFUR COMPOUNDS; HYDROGEN; HYDROGEN SULFIDES; FUEL GAS
- 00418 COAL GAS. (to Heinrich Koppers GmbH). German(FRG) Patent 611,618. 3 Apr 1935.
Removal of H₂S from coal gas using solutions of As—O compounds. COAL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; ARSENIC COMPOUNDS; OXYGEN COMPOUNDS
- 00419 PROCESS FOR PRODUCING SULPHUR BY REDUCING SULPHUR DIOXIDE. Lindblad, A.R. British Patent 426,456. 3 Apr 1935. Filed date 12 Jun 1934. 4p.
Reducing agent is carbon monoxide. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; REDUCTION; CARBON MONOXIDE; COAL; COKE; GASIFICATION; CATALYSTS; ALKALI METAL COMPOUNDS; SULFUR
- 00420 COAL GAS. Stinnes, G.M. German(FRG) Patent 613,615. 22 May 1935.
Removal of S by bog Fe ore or a mixture of Fe₂O₃ and Na₂CO₃. COAL GAS; DESULFURIZATION; REMOVAL; SULFUR; IRON ORES; IRON OXIDES; SODIUM CARBONATES; OXYGEN
- 00421 RECOVERY OF SULFUR DIOXIDE FROM WASTE GASES. Johnstone, H.F.; Keyes, D.B. Ind. Eng. Chem.; 27: No. 6, 659-65(Jun 1935).
From American Chemical Society Symposium on Distillation; Cambridge, MA (28-29 Dec 1934).
Scrubbing with ammonium sulfite-bisulfite solutions. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; SCRUBBING; SOLUTIONS; AMMONIUM COMPOUNDS; SULFITES; STEAM; REGENERATION
- 00422 REMOVAL OF HYDROGEN SULFIDE AND AMMONIA FROM GASES. Baehr, H. (to I.G. Farbenind). US Patent 2,045,747. 30 Jun 1935.
Ammonium polythionate to remove NH₃ and aqueous triethanolamine solution to remove H₂S. HYDROGEN SULFIDES; AMMONIA; REMOVAL; GASES; DESULFURIZATION; PURIFICATION; AMMONIUM COMPOUNDS; THIONATES; AMINES
- 00423 PURIFYING GASES. Farbenind, I.G. German(FRG) Patent 615,510. 6 Jul 1935.
Removal of H₂S by oxidation with the aid of a catalyst. GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; OXIDATION; CATALYSTS
- 00424 PURIFYING GASES. Nonhebel, G.; Pearson, J.L. British Patent 433,039. 29 Jul 1935.
Scrubbing with recirculating aqueous washing media containing CaO, chalk, or Mg limestone. FLUE GAS; PURIFICATION; SULFUR OXIDES; SMOKES; AQUEOUS SOLUTIONS; CALCIUM OXIDES; MAGNESIUM COMPOUNDS; LIMESTONE; DESULFURIZATION
- 00425 REMOVING WEAK ACIDS FROM GASES. (to I. G. Farbenind.). French Patent 785,276. 6 Aug 1935.
Removal of H₂S and CO₂ from gases by washing with bases with formula of A₁(A₂)NXN(A₃)A₄. HYDROGEN SULFIDES; CARBON DIOXIDE; GASES; PURIFICATION; AMINES; PIPERAZINES; PYRAZINES; REMOVAL
- 00426 WASHING FLUE GASES. Nonhebel, G.; Pearson, J.L. British Patent 433,373. 6 Aug 1935.
Removal of sulfur oxides by washing with recirculating liquid containing CaO or chalk. FLUE GAS; SULFUR OXIDES; PH VALUE; AQUEOUS SOLUTIONS; HYDROCHLORIC ACID; CALCIUM OXIDES; PURIFICATION; REMOVAL; DESULFURIZATION
- 00427 PURIFYING FLUE GASES. Boving, J.O. (to Lodge-Cottrell Ltd.). British Patent 435,560. 23 Sep 1935.
Sulfur oxide removal from flue gases by heating to 400 to 625° and bringing into contact with dry CaO, Ca(OH)₂ or CaCO₃ using Fe₂O₃ as catalyst. FLUE GAS; PURIFICATION; SULFUR OXIDES; REMOVAL; DESULFURIZATION; CATALYSTS; CALCIUM OXIDES; CALCIUM HYDROXIDES; CALCIUM CARBONATES; IRON OXIDES; CATALYSTS; HIGH TEMPERATURE
- 00428 COAL GAS. Koppers, H. German(FRG) Patent 619,847. 8 Oct 1935.
Removal of H₂S from coal gas by alkaline washing using solutions containing S—As—O compounds and a small amount of Mn or Cu

- compounds as catalysts. COAL GAS;HYDROGEN SULFIDES;REMOVAL;DESULFURIZATION;SULFUR COMPOUNDS;ARSENIC COMPOUNDS;OXYGEN COMPOUNDS; CATALYSTS;MANGANESE COMPOUNDS;COPPER COMPOUNDS
- 00429 PURIFICATION OF COMMERCIAL GASES AT ELEVATED TEMPERATURES. II. SIMULTANEOUS REMOVAL OF HYDROGEN SULFIDE AND ORGANIC SULFUR. Huff, W.J.; Logan, L. Am. Gas Assoc., Proc.; 18: 733-52, 754-9(1936).
Use of Cu-V-clay and Cu-Cr-clay. HYDROGEN SULFIDES;ORGANIC SULFUR COMPOUNDS;REMOVAL; DESULFURIZATION;WATER GAS;COAL GAS;NATURAL GAS
- 00430 CATALYTIC PURIFICATION OF FLUE GASES FROM SULFUR DIOXIDE. Peisakhov, I.L. Novosti Tekhniki; 1936: No. 58-9, 13-14(1936).
Use of MnO_2 alone and mixed with $FeSO_4$ as catalyst. CATALYSTS;FLUE GAS;SULFUR DIOXIDE; MANGANESE OXIDES;IRON SULFATES;DESULFURIZATION; REMOVAL
- 00431 PROGRESS IN THE UTILIZATION OF NITROGEN AND SULFUR IN COAL. Muhlert, F. Chem. Fabrik; 273-81(1936).
Review of processes and equipment for purifying coal gas and recovering by-products. COAL GAS;NITROGEN;SULFUR;COAL GAS;REVIEWS; DESULFURIZATION;PURIFICATION
- 00432 HYDRAULIC DESULFURIZER FOR FLUE GASES. Kashtanov, A. Novosti Tekhniki; 1936: No. 3, 27-8(1936).
Johnston and ozonization methods. DESULFURIZATION;COAL;CATALYSTS;FLUE GAS
- 00433 REMOVAL OF HYDROGEN SULFIDE FROM GAS. Powell, A.R. Chem. Eng. (London); 43: 307-9(1936).
Thylox process. HYDROGEN SULFIDES;REMOVAL; DESULFURIZATION;WATER GAS;THYLOX PROCESS
- 00434 PURIFICATION OF GAS WITH A PHENOLATE SOLUTION. Nikhamov, I.P. Khim. Tverd. Topl.; 7: 820-31(1936).
Removal of H_2S and CO_2 . HYDROGEN SULFIDES; REMOVAL;DESULFURIZATION;CARBON DIOXIDE;GASES
- 00435 TWO-STAGE "THYLOX" PROCESS FOR HYDROGEN SULFIDE REMOVAL. Powell, A.R. Gas J.; 215: 277-80(1936).
THYLOX PROCESS;HYDROGEN SULFIDES;REMOVAL; DESULFURIZATION;COAL GAS
- 00436 COMBINED METHOD OF PURIFICATION OF FLUE GASES FROM OXIDES OF SULFUR. Andrianov, A.P. Novosti Tekhniki; 1936: No. 58-9, 14-16(1936).
Use of catalytic method followed by lime method. SULFUR OXIDES;FLUE GAS;REMOVAL; DESULFURIZATION;CATALYSTS;EQUIPMENT;CALCIUM HYDROXIDES
- 00437 WET PURIFICATION OF COKE-OVEN GAS. Pieters, H.A.J. Chem. Congr. World Power Conf. 1936; No. C10, (1936).
Use of Na ferrocyanide $(NH_4)_2SO_4$, NH_3 , and $FeSO_4$ in purification of coke-oven gas. COAL GAS;PURIFICATION;HYDROGEN SULFIDES;REMOVAL; DESULFURIZATION;HYDROCYANIC ACID
- 00438 IDENTIFICATION, DETERMINATION AND SEPARATION METHODS OF SULFUR COMPOUNDS IN BROWN-COAL TAR, BITUMINOUS-COAL TAR AND PETROLEUM ACCORDING TO THE LITERATURE AND PATENTS. Schmeling, F. Braunkohle; 45: 15-34(1936).
COAL TAR;BITUMINOUS COAL;BROWN COAL; PETROLEUM;REVIEWS;DESULFURIZATION;SULFUR; REMOVAL;SEPARATION PROCESSES;SULFUR COMPOUNDS
- 00439 PURIFICATION OF COMMERCIAL GASES AT ELEVATED TEMPERATURES. I. ELIMINATION OF ORGANIC SULFUR. Huff, W.J.; Logan, L. Am. Gas Assoc., Proc; 18: 724-33(1936).
Catalysts consisting of U oxide mixed with Cu or Ce oxide; conversion of organic S to H_2S . DESULFURIZATION;HYDROGEN SULFIDES;ORGANIC SULFUR COMPOUNDS;CATALYSTS;HIGH TEMPERATURE; URANIUM OXIDES;COPPER OXIDES;CERIUM OXIDES; GASES;REMOVAL
- 00440 CLEANING HIGH-SULFUR GASES. Leahy, M.J. Refiner Natural Gasoline Mfr.; 15: 276-9(1936).
Review; Feld process; soda-ash process; Leahy process. REVIEWS;IRON OXIDES;IRON HYDROXIDES;FELD PROCESS;SODA-ASH PROCESS;LEAHY PROCESS;HYDROGEN SULFIDES;REMOVAL;GASES; DESULFURIZATION
- 00441 REPORT ON THE REMOVAL OF SULFUR COMPOUNDS FROM TOWN GAS DOWN TO 10 GRAINS PER 100 CUBIC FEET. Hollings, H.; Evans, E.V. Inst. Gas Engrs., Copyright Pub.; No. 146/43, (1936).
Active C process for benzene extraction to remove thiophene and some CS_2 ; catalytic process to remove CS_2 and little of thiophene. SULFUR COMPOUNDS;REMOVAL;FUEL GAS; DESULFURIZATION;CATALYSTS;ACTIVATED CARBON; THIOPHENE;CARBON SULFIDES;TOWN GAS
- 00442 APPLICATION OF CATALYSTS AND OZONE IN THE WATER PURIFICATION OF FLUE GASES FROM SULFUR DIOXIDE. Vasil'ev, S.S.; Kashtanov, L.I.; Kastorskaya, T.L.; Nemkova, D.G. Novosti Tekhniki; 1936: No. 58-9, 12-13(1936).
Solution of Mn salts used for absorption of SO_2 results in formation of H_2SO_4 . CATALYSTS; OZONE;SULFUR DIOXIDE;REMOVAL;WATER;SULFURIC ACID;MANGANESE COMPOUNDS;DESULFURIZATION;FLUE GAS
- 00443 REMOVING AMMONIA AND HYDROGEN SULFIDE FROM GASES SUCH AS COLD COKE-OVEN GAS. Baehr, H. (to I. G. Farbenind.). US Patent 2,067,311. 12 Jan 1936.
Scrubbing with H_2SO_4 and aqueous solution of monoethanolamine. AMMONIA;HYDROGEN SULFIDES; REMOVAL;COAL GAS;DESULFURIZATION;PURIFICATION; EQUIPMENT
- 00444 REMOVAL AND RECOVERY OF HYDROGEN SULFIDE FROM COAL GAS. Golimar, H.A. (to Koppers Co.). US Patent 2,106,734. 1 Feb 1936.
Scrubbing and distillation process using NH_3 -fortified ammoniacal liquor. COAL GAS;HYDROGEN SULFIDES;DESULFURIZATION;PURIFICATION;AMMONIA; SOLUTIONS;REMOVAL
- 00445 GAS-PURIFICATION MATERIAL. Ayers, J.W. (to C.K. Williams and Co.). US Patent 2,069,194. 2 Feb 1936.
Use of sponge containing hydrated Fe oxide and $CaSO_4$ to remove H_2S from gas. HYDROGEN SULFIDES;REMOVAL;DESULFURIZATION;GASES;CALCIUM SULFATES;IRON OXIDES
- 00446 PURIFYING GASES. Jeanprost, C.; Maginot, C. French Patent 793,958. 5 Feb 1936.
From distillation of coal and schists by ion exchange. GASES;PURIFICATION;CATALYSTS;ZEOLITES; ADSORBENTS;METAMORPHIC ROCKS;COAL;DISTILLATION; AMMONIA;PYRIDINES;ION EXCHANGE;ION EXCHANGE MATERIALS
- 00447 UTILIZING HYDROGEN SULFIDE OF GASES. Rosenstein, L. (to Shell Development Co.). US Patent 2,107,907. 8 Feb 1936.
Removal and recovery of H_2S from natural gas by contacting with aqueous solution of K_3PO_4 . NATURAL GAS;DESULFURIZATION;POTASSIUM PHOSPHATES;AQUEOUS SOLUTIONS;HYDROGEN SULFIDES; COMBUSTION;SULFUR;REMOVAL
- 00448 REMOVING SULFUR FROM GASES. French Patent 797,902. 6 May 1936.

- Use of alkali metal carbonates and oxides and hydroxides of Fe as catalysts. DESULFURIZATION; CATALYSTS; HYDROGEN SULFIDES; REMOVAL; ALKALI METAL COMPOUNDS; CARBONATES; IRON OXIDES; IRON HYDROXIDES; GASES; ORGANIC SULFUR COMPOUNDS
- 00449 REMOVING AND RECOVERING SULFUR DIOXIDE FROM WASTE GASES. Johnstone, H.F. (to Board of Trustees of the Univ. of IL). US Patent 2,082,006. 1 Jun 1936.
Absorption of SO₂ by cooled aqueous solution of salt of organic acid. SULFUR DIOXIDE; REMOVAL; GASES; AQUEOUS SOLUTIONS; SULFANILIC ACID; DESULFURIZATION
- 00450 CATALYTIC CONVERSION OF SULFUR COMPOUNDS IN GASES. Connolly, G.C. (to Sulco Laboratories, Inc.). US Patent 2,083,894. 15 Jun 1936.
Oxides of Fe, Ni, and Mo as catalysts. CATALYSTS; HYDROGEN SULFIDES; ORGANIC SULFUR COMPOUNDS; REMOVAL; IRON OXIDES; NICKEL OXIDES; MOLYBDENUM OXIDES; GASES; DESULFURIZATION
- 00451 COMMERCIAL PLANT FOR REMOVAL OF SMOKE AND OXIDES OF SULPHUR FROM FLUE GASES. Nonhebel, G. Trans. Faraday Soc.; 32: No. 8, 1291-6(Aug 1936).
Scrubbing towers use alkaline water for removal of smoke, dust, and acid constituents from boiler flue gas. SULFUR OXIDES; REMOVAL; FLUE GAS; DESULFURIZATION; AQUEOUS SOLUTIONS; SMOKES; DUSTS; WASHING; PURIFICATION
- 00452 PURIFYING GASES FROM THE COMBUSTION OF SULFUR-CONTAINING FUELS. Nonhebel, G.; Pearson, J.L. (to Imperial Chemical Industries Ltd.). US Patent 2,090,142. 17 Aug 1936.
Use of lime in gas-scrubbing zone. COAL; COAL GAS; PURIFICATION; SULFUR OXIDES; AQUEOUS SOLUTIONS; ABSORPTION; DESULFURIZATION; REMOVAL
- 00453 PURIFYING SULFUR DIOXIDE-CONTAINING GASES. Beckman, J.W. US Patent 2,090,828. 24 Aug 1936.
Removal of SO₂ by reduction to S followed by settling, precipitation, and filtration. SULFUR DIOXIDE; REMOVAL; DESULFURIZATION; CARBON MONOXIDE; HYDROGEN; METHANE; GASES
- 00454 GAS-PURIFYING MATERIALS. Boiling, E.H. (to South Metropolitan Gas Co.). British Patent 454,175. 25 Sep 1936.
Dry removal of H₂S from gases; formation of insoluble sulfides by addition of Cu, Hg, and Pb. HYDROGEN SULFIDES; REMOVAL; DESULFURIZATION; COPPER COMPOUNDS; MERCURY COMPOUNDS; LEAD COMPOUNDS; IRON OXIDES; COAL GAS
- 00455 DESULFURIZING GASES. (to C. Otto and Co. GmbH). German(FRG) Patent 637,114. 21 Oct 1936.
Gas purification by washing using solution of SO₂ aliphatic or aromatic hydrocarbon to which an organic base and a phenol or naphthol have been added. DESULFURIZATION; HYDROGEN SULFIDES; REMOVAL; EQUIPMENT; COAL GAS
- 00456 PURIFYING GASES. (to Sulfur-Chemie). French Patent 804,487. 24 Oct 1936.
Removal of H₂S or SO₂ from gases with simultaneous precipitation of S by activated washing solution composed of oxygenated compounds of thiosulfate. HYDROGEN SULFIDES; SULFUR DIOXIDE; GASES; REMOVAL; PURIFICATION; THIOSULFATES; SOLUTIONS
- 00457 REMOVING HYDROGEN SULFIDE FROM GASES. Hutchison, W.K.; Dougill, G. (to The Gas Light and Coke Co.). British Patent 456,661. 9 Nov 1936.
Use of colloidal suspension in nonaqueous liquid of salt of higher organic acid or metallic coordination compound; e.g., compounds of Zn, Cu, Fe, Co, Ni. HYDROGEN SULFIDES; REMOVAL; DESULFURIZATION; COAL GAS; COMPLEXES; COLLOIDS; ZINC COMPOUNDS; COPPER COMPOUNDS; IRON COMPOUNDS; COBALT COMPOUNDS; NICKEL COMPOUNDS; CHELATES; ORGANIC ACIDS
- 00458 REMOVING WEAK GASEOUS ACIDS FROM GASES. (to I. G. Farbenindustrie). British Patent 457,343. 26 Nov 1936.
Use of diamines, polyamines, and salts of amino-, imino-, or tertiary N-acid derivatives. FUEL GAS; DESULFURIZATION; CARBON MONOXIDE; HYDROGEN SULFIDES; SULFUR DIOXIDE; REMOVAL
- 00459 MODERN PROCESSES FOR THE DESULFURIZATION OF GASES. Waeser, B. Kolloid-Z.; 81: 354-60(1937).
Review of patents. COAL GAS; DESULFURIZATION; REVIEWS
- 00460 NEW DEVELOPMENTS IN GAS-SCRUBBING PROCESSES. Fuchs, O. Gas-Wasserfach; 80: 18-24(1937).
Thylox gas purification process; Pintsch light-oil recovery process; I.C.I. process for removing fly ash and SO₂ from flue gases; review. THYLOX PROCESS; REVIEWS; FLUE GAS; PURIFICATION; DESULFURIZATION; SULFUR DIOXIDE; REMOVAL; ICI PROCESS
- 00461 COLLECTION OF AMMONIA, BENZENE, AND HYDROGEN SULFIDE [FROM COKE-OVEN GAS]. Kukushkin, S.I. Coke and Chem. (USSR); 7: No. 4-5, 23-7(1937).
S used to manufacture (NH₄)₂SO₄; benzene collected with wash oil and activated carbon. COAL GAS; DESULFURIZATION; PURIFICATION; REMOVAL; HYDROGEN SULFIDES; AMMONIA; BENZENE; ACTIVATED CARBON
- 00462 REMOVAL OF SULFUR FROM COMBUSTION GASES. Brownlie, D. Steam Engr.; 6: 508-10(1937).
FLUE GAS; DESULFURIZATION; REVIEWS
- 00463 PURIFICATION OF COAL GAS WITH SIMULTANEOUS REGENERATION OF THE PURIFICATION MASS. Perna, F. Plyn a Voda; 17: 131-7(1937).
Lux or Lauta. COAL GAS; DESULFURIZATION; LUXMASSE; PURIFICATION; OXYGEN
- 00464 EXPERIMENTAL INVESTIGATION OF THE "FERROX" PROCESS FOR GAS PURIFICATION. Nusinov, G.O. Khim. Tverd. Topl.; 8: 271-85(1937).
COAL GAS; DESULFURIZATION; IRON HYDROXIDES; SODIUM CARBONATES; HYDROGEN SULFIDES; CHEMISORPTION; FERROX PROCESS; REMOVAL
- 00465 GAS DESULFURIZATION. Sabrou, L. Bull. Assoc. Franc. Techniciens Petrole; No. 40, 59-74(1937).
Review of industrial processes. COAL GAS; DESULFURIZATION; REVIEWS; INDUSTRY
- 00466 SULFUR REMOVAL FROM COMBUSTION GASES. Brownlie, D. Engr. of India; 5: 70-3(1937).
I.C.I. and Boliden processes. GASES; DESULFURIZATION; ICI PROCESS; BOLIDEN PROCESS; SULFUR OXIDES; SULFUR; REMOVAL
- 00467 REMOVAL OF HYDROGEN SULFIDE FROM GASES. Pieters, H.A.J. Brennst.-Chem.; 18: 373-6(1937).
H₂S is completely removed and recovered as free S or thiosulfate. HYDROGEN SULFIDES; REMOVAL; DESULFURIZATION; GASES
- 00468 CATALYTIC OXIDATION OF HYDROGEN SULFIDE IN PRESENCE OF ACTIVE CARBON. Krezil, F. Chem. Ztg.; 61: 247-8, 249, 267-8, 269-

- 70(1937).
Review of German literature and discussion of patents. HYDROGEN SULFIDES; OXIDATION; CATALYSTS; ACTIVATED CARBON; REVIEWS; AIR; OXYGEN; GASES; DESULFURIZATION; GERMAN WORK
- 00469 . MODERN METHODS FOR THE DESULFURIZATION OF GASES. Ferenc, P. Technikai Kurir; 8: 20-2(1937).
REVIEWS; DESULFURIZATION; FUEL GAS
- 00470 PURIFICATION OF LIGHT OILS FROM THE DRY DISTILLATION OF BITUMINOUS COALS. I. INTRODUCTION, LITERATURE, AND PATENTS. Ruhl, G. Brennst.-Chem.; 18: 413-20(1937).
OILS; PURIFICATION; REVIEWS; SULFURIC ACID; CHEMICAL REACTIONS; BIBLIOGRAPHIES; BITUMINOUS COAL; COAL; DISTILLATION
- 00471 DESULFURIZATION OF GASES. Suru, J. Technikai Kurir; 8: 31-2(1937).
S absorbing compounds; mixture of triethanolamine and ditolyl phosphate or aliphatic nitriles of not-too-high molecular weight. DESULFURIZATION; GASES; AMINES; ALCOHOLS; PHOSPHORIC ACID ESTERS; NITRILES
- 00472 REMOVAL OF SULFUR COMPOUNDS FROM GAS. Hutchison, W.K. Inst. Gas Engrs.; No. 175/64, 8-44, 51-64(1937).
Washing with oil, regenerated with K_2CO_3 solution. GASES; DESULFURIZATION; POTASSIUM CARBONATES; OILS; CLEANING
- 00473 CATALYTIC REMOVAL OF SULFUR COMPOUNDS. Griffith, R.H. Inst. Gas Engrs.; No. 175/64, 45-64(1937).
Activated $Ni(OH)_2$ catalyst. GASES; DESULFURIZATION; CATALYSTS; NICKEL HYDROXIDES; ACTIVATED CARBON; CHARCOAL
- 00474 SULFUR FROM COKE-OVEN GAS. Bojanowski, S. Przegląd Chem.; 1: 400-3(1937).
DESULFURIZATION; COAL GAS; REVIEWS
- 00475 REMOVAL OF HYDROGEN SULFIDE FROM GASES. Demski, A. Gas-Wasserfach; 80: 870-3(1937).
Reaction of ferrocyanide ion with S^{2-} , electrolytic regeneration of ferricyanide ion. GASES; DESULFURIZATION; FERROCYANIDES; ELECTROLYSIS; FERRICYANIDES; CHEMICAL REACTIONS; HYDROGEN SULFIDES; REMOVAL
- 00476 REMOVING ORGANICALLY COMBINED SULFUR FROM GASES. (to I. G. Farbenindustrie). British Patent 461,001. 2 Feb 1937.
Use of strong bases or basic-reacting salts of strong inorganic or organic bases at high temperatures to convert S to H_2S . DESULFURIZATION; ORGANIC SULFUR COMPOUNDS; CARBON SULFIDES; HYDROGEN SULFIDES; AMINES; ALCOHOLS; PHOSPHATES; BORATES; CARBONATES; SODIUM COMPOUNDS; POTASSIUM COMPOUNDS; GASES; REMOVAL
- 00477 REMOVAL OF SULFUR DIOXIDE FROM FLUE GASES. Shneerson, E.L.; Zalogin, N.G. USSR Patent 50,446. 28 Feb 1937.
Oxidation of SO_2 to SO_3 ; absorption of some SO_2 in $Ca(OH)_2$ to form $CaSO_3$. FLUE GAS; DESULFURIZATION; SULFUR DIOXIDE; REMOVAL
- 00478 SEPARATING WEAK ACID GASES FROM GAS MIXTURES. Ulrich, H.; Fick, R.; Bahr, H.; Wenzel, W. (to I. G. Farbenind.). German(FRG) Patent 642,244. 6 Mar 1937.
Washing of mixtures containing CO_2 , H_2S , etc., with solutions of salts of primary, secondary, and tertiary amino acids containing at least 2N atoms. CARBON DIOXIDE; HYDROGEN SULFIDES; AMINO ACIDS; PURIFICATION; GASES; REMOVAL
- 00479 DESULFURIZING GASES. Roelen, O.; Feisst, W. (to Studien- und Verwertungsges. m. b. H.). US Patent 2,110,240. 8 Mar 1937.
Series of treatments of gas mixtures with iron oxides and alkali metal carbonates. GASES; DESULFURIZATION; HYDROGEN SULFIDES; ORGANIC SULFUR COMPOUNDS; HIGH TEMPERATURE; IRON OXIDES; ALKALI METAL COMPOUNDS; CARBONATES
- 00480 GAS-PURIFYING MATERIALS. Bertrand, M.F. British Patent 462,934. 18 Mar 1937.
Removal of S or HCN from coal gas or producer gas using porous nodules of Fe oxides and sawdust to which is added resin-containing agglomerant that forms gel in the mass. SULFUR; HYDROCYANIC ACID; COAL GAS; REMOVAL; IRON OXIDES; DESULFURIZATION; PURIFICATION
- 00481 PURIFYING GASES. (to I. G. Farbenindustrie). British Patent 463,263. 25 Mar 1937.
Wet purification of such gases as coal gas. COAL GAS; PURIFICATION; AMMONIA; HYDROGEN SULFIDES; REMOVAL; CATALYSTS; DESULFURIZATION
- 00482 PURIFYING COKE-OVEN GAS. Schreiber, F.D. US Patent 2,113,002. 5 Apr 1937.
Removal of NH_3 , HCN, and S. COKE-OVEN GAS; COAL GAS; DESULFURIZATION; SULFURIC ACID; AMMONIA; HYDROGEN SULFIDES; HYDROCYANIC ACID; PURIFICATION; IRON COMPOUNDS; REMOVAL
- 00483 REMOVING SULFUR COMPOUNDS FROM COAL GAS, ETC. (to Heinrich Koppers GmbH). German(FRG) Patent 643,994. 22 Apr 1937.
Removal of H_2S from distillation gases by washing with alkaline solutions of compounds of As, alkali, S, or O. COAL GAS; DESULFURIZATION; HYDROGEN SULFIDES; REMOVAL
- 00484 ELIMATING HYDROGEN SULFIDE FROM GASES. (to De Directie van de Staatsmijnen in Limburg). German(FRG) Patent 646,192. 10 Jun 1937.
Washing with suspension of a ferrocyanide of Fe in aqueous NH_3 containing NH_4 salt. HYDROGEN SULFIDES; REMOVAL; COAL GAS; DESULFURIZATION
- 00485 COAL GAS. Grimme, W.; Tramm, H. (to Ruhrchemie). German(FRG) Patent 646,594. 17 Jun 1937.
Removal of H_2S by passing gas through activated C through which volatile hydrocarbons lighter than C_2H_4 or C_2H_6 have been led. COAL GAS; HYDROGEN SULFIDES; REMOVAL; DESULFURIZATION; ACTIVATED CARBON
- 00486 RECOVERING WEAK GASEOUS ACIDS FROM GASES. (to I. G. Farbenindustrie). British Patent 467,579. 17 Jun 1937.
Removal from gases of H_2S , CO_2 , SO_2 , etc., by washing with liquids such as acetic acid ester of tetramethyldiaminoisopropanol, tetramethyldiaminoisopropanol ethyl ether, and tetrahydroxyethylidiaminoisopropanol. HYDROGEN SULFIDES; CARBON DIOXIDE; SULFUR DIOXIDE; REMOVAL; GASES; PURIFICATION
- 00487 REMOVING SULFUR FROM GASES. (to Studien- und Verwertungs-Gesellschaft m. b. H.). British Patent 469,933. 30 Jul 1937.
Contact with catalysts above 300° and then use of absorbents. GASES; DESULFURIZATION; COBALT SULFIDES; TUNGSTEN OXIDES; NICKEL; ADSORPTION; CHEMISORPTION; IRON OXIDES; SODIUM CARBONATES
- 00488 PURIFYING GASES CONTAINING CARBON MONOXIDE AND HYDROGEN. Roelen, O.; Feisst, W. (to Studien- und Verwertungs-G. m. b. H.). German(FRG) Patent 651,462. 15 Oct 1937.
Removal of organic S compounds using Fe_2O_3 or $Fe(OH)_3$ catalyst at 150 to $300^\circ C$. ORGANIC SULFUR COMPOUNDS; COAL GAS; CARBON MONOXIDE; HYDROGEN; HYDROGEN SULFIDES; IRON OXIDES; IRON HYDROXIDES; CARBONATES; DESULFURIZATION; REMOVAL

- 00489 RECOVERY OF SULFUR DIOXIDE FROM WASTE GASES. Johnstone, H.F. Ind. Eng. Chem.; 29: No. 12, 1396-8(Dec 1937).
From 94. American Chemical Society National Meeting; Rochester, NY (6-10 Sep 1937).
Optimum concentration of ammonia in scrubbing solution. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; SCRUBBING; SOLUTIONS; AMMONIA
- 00490 GAS-PURIFICATION MASSES. Mantel, W.; Backenkohler, F. Glueckauf; 74: 661-9(1938).
Determination of activity and capacity curves of bog Fe ore--Luxmasse mixtures in removal of H₂S. GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; IRON ORES; LUXMASSE; MIXTURES; ABSORPTION; WATER; PH VALUE
- 00491 REVIEW OF RECENT PROCESSES FOR THE REMOVAL OF HYDROGEN SULFIDE FROM GASES BY WET METHODS. Elverdam, E. Gasteknikeren; 27: 515-25(1938).
Discussion of Thylox (Girdler), Katasulf, and Alkazide methods. GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES
- 00492 ABSORPTION OF GASES IN WET CYCLONE SCRUBBERS. Johnstone, H.F.; Kleinschmidt, R.V. Trans. AIChE; 34: 181-98(1938).
From 30. Semi-annual Meeting of American Inst. of Chemical Engineers; White Sulphur Springs (9-11 May 1938).
Using water treated with soda ash. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; SCRUBBING; WATER; SODIUM CARBONATES
- 00493 ABSORPTION OF HYDROGEN SULFIDE FROM COAL GAS. Kalinowski, B. Przegląd Chem.; 2: 448-50(1938).
COAL GAS; DESULFURIZATION; HYDROGEN SULFIDES; REVIEWS
- 00494 DEVELOPMENT OF A PROCESS OF FLUE-GAS WASHING WITHOUT EFFLUENT. Lessing, R. J. Soc. Chem. Ind.; 57: 373-88(1938).
Washing with CaO or chalk suspension. FLUE GAS; DESULFURIZATION; SULFUR DIOXIDE; CALCIUM OXIDES
- 00495 PURIFICATION OF COKE-OVEN GAS UNDER HIGH PRESSURE. Thau, A. Gas World; 109: No. 2826, 115-18(1938).
5.5 to 8 atm. with a maximum of 14. COAL GAS; MEDIUM PRESSURE; DESULFURIZATION; OXIDES
- 00496 PURIFICATION OF GASES FROM HYDROGEN SULFIDE BY ORGANIC ABSORBENTS. Tikhomirov. J. Chem. Ind.; 15: No. 7, 37p.(1938).
PhONa solution. COAL GAS; DESULFURIZATION; ADSORPTION; HYDROGEN SULFIDES; BOILING; ORGANOMETALLIC COMPOUNDS
- 00497 COLLOIDAL PROPERTIES OF IRON OXIDE IN HYDROGEN SULFIDE REMOVAL. Dotterweich, F.H.; Huff, W.J. Gas Age; 82: No. 9, 43-4, 54, 56-8(1938).
IRON OXIDES; HYDROGEN SULFIDES; COLLOIDS; REMOVAL; GASES; DESULFURIZATION; ALUMINIUM OXIDES
- 00498 SYNTHESIS OF GASOLINE FROM CARBON MONOXIDE AND HYDROGEN AT ORDINARY PRESSURES. XLIV. PURIFICATION OF THE GASEOUS RAW MATERIAL USED FOR GASOLINE SYNTHESIS. 3. REMOVAL OF ORGANIC SULFUR BY MEANS OF LUXMASSE AND ADMIXTURES. Hunasaka, W.; Katayama, I. Sci. Pap. Inst. Phys. Chem. Res. (Jap.); 35: 32-8(1938). (In German).
Using Luxmasse with 10% NaOH and 10% ThO₂. GASES; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; LUXMASSE; THORIUM OXIDES; URANIUM OXIDES; SODIUM HYDROXIDES; BARIUM HYDROXIDES; CHROMIUM OXIDES; ALUMINIUM OXIDES; POTASSIUM COMPOUNDS; CHROMIUM OXIDES; SODIUM CARBONATES; HIGH TEMPERATURE; GASOLINE; PRODUCTION; CARBON MONOXIDE; REDUCTION
- 00499 SYNTHESIS OF GASOLINE FROM CARBON MONOXIDE AND HYDROGEN AT ORDINARY PRESSURES. XLV. PURIFICATION OF THE GASEOUS RAW MATERIAL USED FOR GASOLINE SYNTHESIS. 4. REMOVAL OF ORGANIC SULFUR BY MEANS OF SYNTHETIC AGENTS. Hunasaka, W.; Katayama, I. Sci. Pap. Inst. Phys. Chem. Res. (Jap.); 35: 39-46(1938). (In German).
Using Fe₂O₃--Al₂O₃--brimstone and NaOH; Luxmasse and diatomaceous earth with NaOH; or Fe₂O₃--bentonite--NaOH. GASES; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; IRON OXIDES; ALUMINIUM OXIDES; SODIUM HYDROXIDES; LUXMASSE; BENTONITE; HIGH TEMPERATURE; CARBON MONOXIDE; REDUCTION
- 00500 GAS PURIFICATION BY THE I. G. ALKACID PROCESS AND SULFUR RECOVERY BY THE I. G. CLAUS PROCESS. Bahr, H. Refiner Natural Gasoline Mfr.; 17: 238-44(1938).
Removal of H₂S and CO₂ by alkaline metal salts of weak organic acids such as amino acids. GASES; DESULFURIZATION; PURIFICATION; REMOVAL; HYDROGEN SULFIDES; CARBON DIOXIDE; SOLUTIONS; METALS; AMINO ACIDS; ORGANIC ACIDS
- 00501 EXTRACTION AND UTILIZATION OF FUEL-GAS SULFUR. Thau, A. Z. Ver. Deut. Ing., Beiheft Folge; No. 3, 81-6(1938).
Flowsheets and 20 references. FUEL GAS; DESULFURIZATION; REMOVAL; SULFUR
- 00502 REMOVAL OF ORGANIC SULFUR COMPOUNDS FROM GASES. van der Zaaij, W. Het Gas; 58: 333-44(1938).
Review; some 150 references. GASES; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; HYDROGEN SULFIDES; CATALYSTS; REVIEWS
- 00503 GESELLSCHAFT FÜR KOHLENTCHNIK PROCESS FOR DESULFURIZATION OF [COKE-OVEN] GAS WITH RECOVERY OF AMMONIA. Weittenhiller, H. Glueckauf; 74: 126-31(1938).
Ammoniacal suspension of Fe(OH)₃ used to remove H₂S as FeS. HYDROCYANIC ACID; AMMONIUM COMPOUNDS; THIOCYANATES; IRON HYDROXIDES; HYDROGEN SULFIDES; IRON SULFIDES; SULFUR DIOXIDE; COAL GAS; DESULFURIZATION; ECONOMICS
- 00504 DETERMINATION OF THE COEFFICIENT OF ABSORPTION OF HYDROGEN SULFIDE BY BOG IRON ORE. Ioshna, I.E.; Vorotilov, N.I. J. Appl. Chem. USSR (Engl. Transl.); 11: 1335-42(1938).
HYDROGEN SULFIDES; ABSORPTION; IRON ORES
- 00505 COMBINATION GAS DEHYDRATION AND DESULFURIZATION PLANT. Bacon, T.S. Gas Age; 81: No. 11, 30-2(1938).
Using aqueous solution of monoethanolamine and diethylene glycol. GASES; DEHYDRATION; DESULFURIZATION; AMINES; GLYCOLS; AQUEOUS SOLUTIONS
- 00506 DRY PURIFICATION OF BLUE GAS. Jaworski, E.; Eymann, C. Gas- Wasserfach; 81: 535-7(1938).
Blue gas: using iron oxide with Na, CO₂, or NH₃ additions. DESULFURIZATION; COAL GAS; SULFUR OXIDES; CARBON DIOXIDE; SODIUM CARBONATES; HYDROGEN SULFIDES; AMMONIA; IRON OXIDES
- 00507 EXPERIENCES WITH DRY (SULFUR) PURIFICATION OF GAS. Deneke, H. Gas- Wasserfach; 81: 66-9, 83-8(1938).
Using Lauta mass of volume 4 m³/1000 m³ gas/day. GASES; DESULFURIZATION; MOISTURE; VOLUME
- 00508 PURIFICATION OF THE GASEOUS RAW-MATERIAL USED FOR BENZINE SYNTHESIS. I. REMOVAL OF ORGANIC SULFUR COMPOUNDS AT LOW TEMPERATURE. Tsuneoka, S.; Funasaka, W. J. Soc. Chem. Ind., Japan; 41: 43-7, 47-51(1938).

- Use of adsorbents, dry purificants (Fe_2O_3 on pumic support and Luxmasse), and H_2S scrubbing materials (Thylox solution and triethylamine to which Fe_2O_3 was added). GASES; DESULFURIZATION; HYDROGEN SULFIDES; BENZENE; ACTIVATED CARBON; LUXMASSE; IRON OXIDES; THYLOX PROCESS; ORGANIC SULFUR COMPOUNDS; AMINES; REMOVAL; PRODUCTION
- 00509 PURIFICATION OF THE GASEOUS RAW-MATERIAL USED FOR BENZENE SYNTHESIS. II. REMOVAL OF ORGANIC SULFUR COMPOUNDS AT HIGH TEMPERATURE. Tsuneoka, S.; Funasaka, W. J. Soc. Chem. Ind., Japan; 41: 310-20(1938).
Passing gases through pipes heated to 500°C using catalysts of Ag, $\text{CuO}-\text{CrO}_3$, Pb, Ni, Fe-Cu. GASES; DESULFURIZATION; HIGH TEMPERATURE; CATALYSTS; SILVER; COPPER OXIDES; CHROMIUM OXIDES; LEAD; NICKEL; IRON ALLOYS; COPPER ALLOYS; ACTIVATED CARBON; ORGANIC SULFUR COMPOUNDS; HYDROGEN SULFIDES; IRON OXIDES; LUXMASSE; PIPES; IRON; BENZENE; PRODUCTION; REMOVAL
- 00510 DESULFURIZATION OF COAL. II. LARGE-SCALE TESTS. Yurovskii, A.Z.; Lifshits, M.M.; Milfort, N.V. Coke and Chem. (USSR); No. 11, 14-17(1938).
Removal of S as SO_2 by passing an air-steam mixture at 350° and 670 mm. COAL; DESULFURIZATION; AIR; STEAM; SULFUR DIOXIDE; HIGH TEMPERATURE; MEDIUM PRESSURE
- 00511 REMOVAL OF HYDROGEN SULFIDE FROM GASES. Titlyanov, E.; Cheredov, V. Novosti Tekhniki; 1938: No. 3, 36-8(1938).
Using As_2O_3 and Na_2CO_3 . HYDROGEN SULFIDES; ARSENIC OXIDES; GASES; DESULFURIZATION; SODIUM CARBONATES; REMOVAL
- 00512 REMOVAL OF ACID SULFUR COMPOUNDS FROM COMBUSTION GASES. Brownlie, D. Steam Engr.; 7: 361-3(1938).
GASES; DESULFURIZATION; REVIEWS
- 00513 DESULFURIZATION OF COAL. Yurovskii, A.Z.; Lifshits, M.M. Coke and Chem. (USSR); No. 8-9, 9-13(1938).
By heating for 12 to 16 hrs at 350° under 610 mm in a current of air and steam. COAL; DESULFURIZATION; HIGH TEMPERATURE; MEDIUM PRESSURE; AIR; STEAM; REMOVAL; SULFUR
- 00514 THYLOX PROCESS AND ITS TECHNICAL AND SCIENTIFIC RESULTS. Fitz, W. Brennst.-Chem.; 19: 397-402(1938).
For removal of H_2S from gases. GASES; DESULFURIZATION; THYLOX PROCESS; COST; REMOVAL; HYDROGEN SULFIDES
- 00515 RECOVERY OF SULFUR DIOXIDE FROM WASTE GASES. Johnstone, H.F.; Read, R.J.; Blankmeyer, H.C. Ind. Eng. Chem.; 30: No. 1, 101-9(Jan 1938).
From 94. American Chemical Society Meeting; Rochester, NY (6-10 Sep 1937).
Comparison of various sulfite-bisulfite solutions. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; SCRUBBING; SOLUTIONS; SULFITES; VAPOR PRESSURE; STEAM; REGENERATION
- 00516 REMOVING ORGANICALLY COMBINED SULFUR FROM GASES. (to I. G. Farbenindustrie). British Patent 478,877. 21 Jan 1938.
Treating with oxygen, and under alkaline conditions with activated charcoal. GASES; DESULFURIZATION; ORGANIC SULFUR COMPOUNDS; ACTIVATED CARBON; OXYGEN; GAS FLOW; REMOVAL
- 00517 DESULFURIZING GASES. (to Carbonization et charbons actifs). British Patent 479,410. 4 Feb 1938.
Using catalysts of activated carbon impregnated with iron oxide. GASES; DESULFURIZATION; CATALYSTS; ACTIVATED CARBON; IRON OXIDES; IMPREGNATION; HYDROGEN SULFIDES; REMOVAL
- 00518 WET PURIFICATION OF GASES SUCH AS THOSE FROM COAL DISTILLATION. Baehr, H. (to I. G. Farbenind.). US Patent 2,152,454. 28 Mar 1938.
Removal of NH_3 , H_2S , and a benzene hydrocarbon by scrubbing with an acid solution of NH_4 thionate, sulfite, or bisulfate followed by oxidation (heat and catalyst) then washing oil treatment to remove hydrocarbons. COAL GAS; DESULFURIZATION; PURIFICATION; REMOVAL; HYDROGEN SULFIDES; AMMONIA; BENZENE; HYDROCARBONS; AMMONIUM COMPOUNDS; THIONATES; SULFITES; OXIDATION
- 00519 REMOVING SULFUR COMPOUNDS FROM GASES. Roelen, O. (to Ruhrchemie). German(FRG) Patent 659,407. 3 May 1938.
Using mixtures of Fe oxides or hydroxides and 5% alkali carbonate. GASES; DESULFURIZATION; HYDROGEN SULFIDES; AQUEOUS SOLUTIONS; IRON OXIDES; IRON HYDROXIDES; ALKALI METAL COMPOUNDS; CARBONATES
- 00520 COMPOSITIONS FOR DESULFURIZING GASES. (to Gastechnik G. m. b. H.). German(FRG) Patent 660,225. 19 May 1938.
Using mixture of hydrate of Fe, water, and hydraulic binder. GASES; DESULFURIZATION; IRON COMPOUNDS; HYDRATES; WATER; SPHERES
- 00521 REMOVAL OF HYDROGEN SULFIDE, HYDROCYANIC ACID AND VOLATILE LIQUIDS FROM GASES. Baehr, H.; Wenzel, W.; Mengdehl, H. (to I. G. Farbenind.). US Patent 2,161,663. 6 Jun 1938.
By washing with a high boiling organic solvent or a difficultly volatile organic basic compound such as butyldiethanol amine. GASES; DESULFURIZATION; PURIFICATION; REMOVAL; HYDROGEN SULFIDES; HYDROCYANIC ACID; ORGANIC SOLVENTS; HEATING
- 00522 SCRUBBING GASES, AS IN REMOVING HYDROGEN SULFIDE. Gollmar, H.A. (to Koppers Co.). US Patent 2,163,169. 20 Jun 1938.
Using an alkaline scrubbing solution containing a compound such as a hydroxybenzoic or hydroxynaphthoic acid salt or substitution derivative in alkaline solution. GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; SOLUTIONS; ORGANIC ACIDS
- 00523 DESULFURIZING FUEL GASES. French Patent 829,948. 11 Jul 1938.
Removal of H_2S from fuel gases by treatment with a solution of a salt of Fe then with a solution of NaOH. The product is then treated with steam at $300-450^\circ$. GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; IRON COMPOUNDS; SODIUM HYDROXIDES; SOLUTIONS; HIGH TEMPERATURE; STEAM
- 00524 PURIFYING GASES SUCH AS WATER GAS. Giller, F.; Winkler, F. (to I. G. Farbenind.). US Patent 2,168,933. 8 Aug 1938.
Removal of H_2S with active charcoal. WATER GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; ACTIVATED CARBON; FUEL GAS
- 00525 PURIFYING GASES SUCH AS THOSE FROM COAL DISTILLATION. Pieters, H.A.J. (to C. Gito and Co. GmbH; Staatsmijnen in Limburg). US Patent 2,169,282. 15 Aug 1938.
Removal of H_2S by washing with aqueous ammoniacal solution containing iron ferrocyanide in suspension. COAL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; AQUEOUS SOLUTIONS; AMMONIUM COMPOUNDS; IRON COMPOUNDS; FERROCYANIDES; SUSPENSIONS
- 00526 REMOVING ORGANIC SULFUR COMPOUNDS FROM COAL GAS OR SIMILAR GAS. Maxted, E.B. British Patent 490,775. 22 Aug 1938.
By passing gas over a metallic thiomolybdate

- catalyst at temperatures of 300 to 600°, the H₂S formed being absorbed by hydrated Fe oxide. COAL GAS; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; HIGH TEMPERATURE; CATALYSTS; METALS; COPPER; IRON; NICKEL; SULFUR COMPOUNDS; MOLYBDENUM OXIDES; ABSORPTION; HYDRATES; IRON OXIDES
- 00527 REMOVING ORGANIC SULFUR COMPOUNDS FROM FUEL GASES. British Patent 491,299. 30 Aug 1938.
By passing gases from which H₂S has been removed over Cu catalyst at 570 to 650°. GASES; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; HIGH TEMPERATURE; CATALYSTS; COPPER; ABSORPTION; CALCIUM OXIDES
- 00528 REMOVING GASEOUS WEAK ACIDS SUCH AS H₂S AND CO₂ FROM GASES SUCH AS COAL HYDROGENATION WASTE GASES. Ulrich, H.; Fick, R.; Baehr, H.; Wenzel, W. (to I. G. Farbenind.). US Patent 2,176,441. 17 Oct 1938.
By scrubbing with a solution of Na diethylenetriaminediacetate or other salt of an alkali, alkaline earth, or strong organic base with an aminocarboxylic acid containing at least 2N atoms and derived from ethylenediamine or a polymer. COAL GAS; PURIFICATION; REMOVAL; CARBON MONOXIDE; HYDROGEN SULFIDES; SOLUTIONS; ALKALINE EARTH METALS; ORGANIC COMPOUNDS; CARBOXYLIC ACIDS
- 00529 REMOVING MOISTURE AND ACID GASES FROM NATURAL GAS, ETC. Hutchinson, A.J.L. US Patent 2,177,068. 24 Oct 1938.
By contact with an absorbent composed of a liquid polyhydric alcohol, an aliphatic amine, and water. NATURAL GAS; PURIFICATION; REMOVAL; HYDROGEN SULFIDES; CARBON DIOXIDE; WATER VAPOR; ABSORPTION; ALCOHOLS; AMINES; WATER
- 00530 ELIMINATION OF SULPHUR FROM FLUE GASES. Anon. Engineering; 146: 499-501(28 Oct 1938).
Use of naturally alkaline water or lime water to which calcium sulfate crystals have been added. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR OXIDES; WASHING; WATER; PH VALUE; CALCIUM OXIDES; CALCIUM SULFATES; CRYSTALS
- 00531 PURIFICATION OF [FUEL] GASES. Nakamura, K. J. Fuel Soc. Japan; 18: 843-52(1939).
General discussion. FUEL GAS; PURIFICATION; REVIEWS
- 00532 ENRICHING PRODUCER GAS. Rafalovich, I.M. Vestnik Inzhenerov i Tekh.; No. 9, 388-91(1939).
Removal of CO₂, H₂S, and SO₂ by physical and physicochemical means. FUEL GAS; PURIFICATION; REMOVAL; CARBON DIOXIDE; HYDROGEN SULFIDES; SULFUR DIOXIDE; DESULFURIZATION
- 00533 EXPERIENCES IN GAS PURIFICATION. Ashdown, W.L.; Cornilsen, C.K. Water Works and Sewage; 86: 250-2(1939).
Removal of H₂S using an Fe oxide scrubber. GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; IRON OXIDES
- 00534 BASES OF DRY REMOVAL OF HYDROGEN SULFIDE FROM COAL GAS. Bruckner, H. Atti X^o Congr. Intern. Chim.; 4: 289-304(1939).
Effects of H₂O content, reaction temperature, and structure of the hydrate on efficiency of Fe₂O₃.xH₂O. COAL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; IRON OXIDES; HYDRATES; TEMPERATURE DEPENDENCE; WATER; MOLECULAR STRUCTURE
- 00535 SELECTIVE ABSORPTION OF HYDROGEN SULFIDE. Bezuglyi, D.V.; Rudakov, M.M. J. Appl. Chem. USSR (Engl. Transl.); 12: 697-703(1939).
From coke-oven gas using carbonates and sulfides of alkali metals. COAL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; ALKALI METAL COMPOUNDS; CARBONATES; SULFIDES; CARBON DIOXIDE; PURIFICATION
- 00536 DESULFURIZATION OF COALS. Yurovskii, A.Z.; Lifshits, M.M.; Chemeris, A.A.; Rubinshtein, A.L. Coke and Chem.; 9: No. 4-5, 17-21(1939).
By oxidation of sulfurous compounds by means of a mixture of O (air) and steam; not suitable for coking coals. COAL; DESULFURIZATION; REMOVAL; SULFIDES; OXIDATION; OXYGEN; STEAM; AIR; WATER
- 00537 DRY PURIFICATION OF GAS. Kazhdan, M.G.; Bocharov, V.G. J. Chem. Ind.; 16: No. 8, 54-6(1939).
Removal of H₂S and tar droplets by passage through finely divided coke at 18 to 33°. COAL GAS; PURIFICATION; REMOVAL; HYDROGEN SULFIDES; TAR; COKE; LOW TEMPERATURE; DESULFURIZATION
- 00538 THYLOX PROCESS FOR REMOVING HYDROGEN SULFIDE FROM GAS. Heuser, P. Glueckauf; 75: 946-9(1939).
Complete summary of the Thylox process and cost of operation. GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; THYLOX PROCESS
- 00539 HYDROGEN SULFIDE REMOVED BY TRIPOTASSIUM PHOSPHATE. LaCroix, H.N.; Coulthurst, L.J. Natl. Petroleum News; 31: R-326, 27, 29, 30, 32(1939).
At operating temperature of 200°F. FUEL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; POTASSIUM PHOSPHATES; MEDIUM TEMPERATURE; SOLUTIONS
- 00540 DESULFURIZATION OF COAL. Yurovskii, A.Z.; Lifshits, M.M. Byull. Vugi, Khim. Lab.; No. 1, 89-92(1939).
Treatment with steam-oil at 350°C. COAL; DESULFURIZATION; STEAM; AIR; HIGH TEMPERATURE; SULFUR; REMOVAL
- 00541 BEHAVIOR OF THE SO-CALLED ORGANIC COKE SULFUR IN COKE AT TEMPERATURES OVER 1000°. Trifonov, I. Atti X^o Congr. Intern. Chim.; 3: 659-65(1939).
Volatilization of organic sulfur compounds at 1500 to 2000° in N or H atmosphere. COKE; DISTILLATION; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; VOLATILITY; TEMPERATURE DEPENDENCE; HIGH TEMPERATURE; NITROGEN; HYDROGEN; ATMOSPHERES; SULFUR COMPOUNDS; SOLVENT EXTRACTION
- 00542 TOTAL SULFUR BELOW 10 GRAINS/100 CU. FT. Hudson, N. Gas World; 111: 293-6, 308-11(1939).
GASES; DESULFURIZATION; REMOVAL; SULFUR; COAL GAS
- 00543 SOME CONTRIBUTIONS OF CHEMISTRY AND CHEMICAL ENGINEERING TO STEAM GENERATION. Hewson, G.W.; Rees, R.L. Trans. Inst. Chem. Eng. (London); 17: 43-79(1939).
From 17. Inst. Chemical Engineers Annual Corporate Meeting; London, England (17 Feb 1939).
Two methods of SO₂ removal from flue gases. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; CHEMISORPTION; WATER; CATALYSTS; IRON; SCRUBBING; CALCIUM CARBONATES
- 00544 GAS PURIFICATION, ESPECIALLY DESULFURIZATION AND SULFUR RECOVERY. Lorenzen, G. Chem. Fabrik; 6-23(1939).
Review of methods for removing dust, tar, NH₃, C₆H₆, NO, and S. 55 references. GASES; DESULFURIZATION; PURIFICATION; REMOVAL; DUSTS; TAR; AMMONIA; BENZENE; NITROGEN OXIDES; SULFUR; REVIEWS
- 00545 THYLOX PROCESS FOR THE RECOVERY OF

- SULFUR FROM GASES CONTAINING HYDROGEN SULFIDE. Foxwell, G.E. J. Inst. Fuel; 12: 231-42(1939).
GASES;DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;THYLOX PROCESS
- 00546 TEXAS CO. BUILDS HYDROGEN SULFIDE-REMOVAL PLANT. Beauchamp, H. Gas; 15: No. 3, 62(1939).
Using iron oxide sponge in water. NATURAL GAS;DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;IRON OXIDES;WATER
- 00547 THYLOX PROCESS FOR THE RECOVERY OF SULFUR FROM GASES CONTAINING HYDROGEN SULFIDE. Foxwell, G.E.; Grounds, A. Chem. Ind. (London); 163-70(1939).
GASES;DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;THYLOX PROCESS
- 00548 RECOVERY OF SULFUR FROM FUEL GASES. Powell, A.R. Ind. Eng. Chem.; 31: 789-96(1939).
FUEL GAS;DESULFURIZATION;REVIEWS
- 00549 PROBLEM OF SULFUR IN COAL. ITS EFFECTS DURING COMBUSTION AND CARBONIZATION. Himus, G.W.; Egerton, A.C. Iron and Coal Trades Rev.; 138: 663-4(1939).
Removal of S during carbonization by passage of H₂, water gas, steam, ammonia, or CO through the charge. Addition of Na₂CO₃ and NaOH is effective at 500° but not at 800°. COAL;DESULFURIZATION;REMOVAL;SULFUR;HYDROGEN;WATER GAS;STEAM;AMMONIA;CARBON MONOXIDE;SODIUM CARBONATES;SODIUM HYDROXIDES
- 00550 NEW METHODS FOR THE DESULFURIZATION OF GASES. Rosendahl, F. Chem. App.; 26: 169-74, 189-91(1939).
GASES;DESULFURIZATION;REVIEWS
- 00551 REDUCTION OF ORGANIC SULFUR COMPOUNDS BY OIL WASHING. Cooper, C. Chem. Ind. (London); 155-9(1939).
Removal of CS₂ from coal gas by oil washing. COAL GAS;DESULFURIZATION;REMOVAL;CARBON SULFIDES;OILS;BENZENE
- 00552 SULFUR IN COAL. Armstrong, V.; Himus, G.W. Chem. Ind. (London); 543-8(1939).
Review with 22 references. COAL;DESULFURIZATION;REVIEWS
- 00553 REMOVING HYDROGEN SULFIDE, ETC., FROM GASES. Hene, E. (to Brimsdown Chemical Works Ltd.). British Patent 498,734. 9 Jan 1939.
Using activated carbon with a Fe oxide and/or hydroxide catalyst. GASES;DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;ACTIVATED CARBON;CATALYSTS;IRON OXIDES;IRON HYDROXIDES
- 00554 DESULFURIZING FUEL GASES. Witt, D. German(FRG) Patent 671,189. 1 Feb 1939.
Removal of organic sulfur compounds by passage over activated carbon. GASES;DESULFURIZATION;REMOVAL;ORGANIC SULFUR COMPOUNDS;ACTIVATED CARBON;STEAM;HIGH TEMPERATURE;HYDROGEN SULFIDES;CATALYSTS
- 00555 PURIFYING GASES. (to I. G. Farbenindustrie). British Patent 501,208. 23 Feb 1939.
Removal of NH₃ and H₂S by three step scrubbing with (NH₄)₂SO₃-NH₄HSC₃ solution in steps 1 and 3 and an alkaline liquid containing heavy metal compounds in step 2. GASES;DESULFURIZATION;PURIFICATION;REMOVAL;HYDROGEN SULFIDES;AMMONIA;AMMONIUM COMPOUNDS;SULFATES;SOLUTIONS;METALS
- 00556 TREATMENT OF COAL-DISTILLATION GASES. Bahr, H. (to I. G. Farbenind.). German(FRG) Patent 672,414. 7 Mar 1939.
A method for removing NH₃, H₂S, and HCN in which the products of each step are recycled for use in preceding steps of the cycle. COAL GAS;DESULFURIZATION;PURIFICATION;REMOVAL;HYDROGEN SULFIDES;AMMONIA;HYDROCYANIC ACID;ABSORPTION;SULFUR OXIDES;SULFURIC ACID;AMMONIUM COMPOUNDS;SULFATES
- 00557 REMOVING SULFURIOUS IMPURITIES FROM COMBUSTIBLE GASES SUCH AS COAL GAS. Griffith, R.H.; Plant, J.H.G. US Patent 2,193,278. 12 Mar 1939.
Removal of organic sulfur compounds from H₂S-free gases by contact with a catalyst of the sub-sulfide of Ni or Co at temperatures between 200° and 350°. COAL GAS;DESULFURIZATION;REMOVAL;ORGANIC SULFUR COMPOUNDS;MEDIUM TEMPERATURE;HIGH TEMPERATURE;CATALYSTS;NICKEL SULFIDES;COBALT SULFIDES
- 00558 PURIFYING GASES. (to N. V. de Bataafsche Petroleum Maatschappij). French Patent 839,958. 17 Apr 1939.
Removal of H₂S and like acid impurities by washing with an aqueous solution of an alkaline absorbant such as K₃PO₄, an aliphatic hydroxylamine, or diaminoisopropanol. GASES;DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;ABSORPTION;ORGANIC SOLVENTS;POTASSIUM PHOSPHATES;HYDROXYLAMINE;PROPANOLS
- 00559 MATERIAL FOR GAS PURIFICATION. Sullivan, F.A. US Patent 2,202,174. 28 May 1939.
Mixture of finely divided Fe with paper pulp and water aerated to oxidize the Fe. GASES;DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;IRON;WATER;OXIDATION
- 00560 CATALYTIC PURIFICATION OF GASES. Groombridge, W.H.; Page, R. British Patent 507,593. 19 Jun 1939.
Removal of S by passage at 400 to 600° over a catalyst comprising Fe₂O₃ (60-80%) and ZnO (40-20%). WATER GAS;DESULFURIZATION;REMOVAL;SULFUR;CATALYSTS;IRON OXIDES;ZINC OXIDES;HIGH TEMPERATURE
- 00561 GAS PURIFICATION. Heckman, E.M. US Patent 2,208,029. 16 Jul 1939.
Preparation of compound for removal of H₂S. GASES;DESULFURIZATION;HYDROGEN SULFIDES;REMOVAL;CATALYSTS;IRON OXIDES;IRON SULFATES;ALKALI METAL COMPOUNDS;HYDROXIDES;CHEMICAL PREPARATION
- 00562 SEPARATING AMMONIA AND HYDROGEN SULFIDE FROM COKE-OVEN GAS. Sakmin, P.K. USSR Patent 55,390. 31 Jul 1939.
Removal as NH₄HS. COAL GAS;PURIFICATION;REMOVAL;AMMONIA;HYDROGEN SULFIDES;FREEZING;WATER;NAPHTHALENE;BENZENE;DESULFURIZATION
- 00563 PURIFYING HYDROCARBONS. (to Societe Industrielle des Carburants et Solvants). British Patent 513,108. 4 Oct 1939.
At 320 to 380°C using activated C and powdered Ni or Cu. COAL TAR OILS;DESULFURIZATION;OILS;ACTIVATED CARBON;NICKEL;COPPER;POWDERS;SULFUR;REMOVAL
- 00564 REMOVING HYDROGEN SULFIDE FROM GASES. (to I. G. Farbenindustrie). French Patent 848,331. 7 Nov 1939.
Containing CO₂; treatment with water in presence of NH₃. HYDROGEN SULFIDES;REMOVAL;GASES;CARBON DIOXIDE;DESULFURIZATION;AMMONIA;WATER
- 00565 DESULFURIZING GASES. Tutumi, S. (to Nenryo Kenkyuziotyo). Japanese Patent 133,901. 18 Dec 1939.
Using mixture of Ni or Cu or their oxides,

- hydroxides, or carbonates dispersed in carrier. FUEL GAS; DESULFURIZATION; SULFUR; REMOVAL; NICKEL; COPPER; NICKEL OXIDES; COPPER OXIDES; MIXTURES; COPPER CARBONATES; NICKEL CARBONATES; COPPER HYDROXIDES; NICKEL HYDROXIDES; MATRIX MATERIALS; ASBESTOS
- 00566 BURNT OXIDE FOR HYDROGEN SULFIDE REMOVAL. Thompson, G.E. Gas J.; 229: 190p.(1940).
Burnt oxide from H₂SO₄ plant. FUEL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; OXIDES; SULFURIC ACID
- 00567 PURIFICATION OF FLUE GASES FROM SULFUR DIOXIDE. Peisakhov, I.L.; Chertkov, B.A. J. Chem. Ind. (USSR)/ 17: No. 10, 6-14(1940).
By passing through MgO solution or over MnO₂ catalyst after mixing with air. FLUE GAS; DESULFURIZATION; MAGNESIUM OXIDES; MEDIUM TEMPERATURE; VERY HIGH TEMPERATURE; AIR; MANGANESE OXIDES; SULFUR DIOXIDE; REMOVAL
- 00568 DESULFURIZATION OF [TOWN] GAS AND SULFUR-RECOVERY PROCESSES. Brabant, M. J. Usine Gaz; 64: 33-43, 49-56, 69-75(1940).
COAL GAS; TOWN GAS; DESULFURIZATION; REVIEWS; SULFUR; PRODUCTION; REMOVAL
- 00569 PURIFYING COKE-OVEN GAS FROM SULFUR. Dal, V.I.; Gubergrits, M.V. Teor. Prakt. Met. (Chelyabinsk); 12: No. 10, 20-3(1940).
Using Fe₂O₃, sorption in Na₂CO₃, and Thylox process. COAL GAS; DESULFURIZATION; SULFUR; REMOVAL; IRON OXIDES; SODIUM CARBONATES; THYLOX PROCESS
- 00570 DEVELOPMENTS IN THE REMOVAL OF HYDROGEN SULFIDE FROM NATURAL AND (PETROLEUM-) REFINERY GASES. Leech, W.A., Jr. Petroleum Engr.; 11: No. 10, 97-8(1940).
Use of carbon black, K₃PO₄, FeO, and amine or phenolate treatment. NATURAL GAS; FUEL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; CARBON BLACK; POTASSIUM PHOSPHATES; IRON OXIDES; AMINES; PHENOLS
- 00571 PURIFICATION OF FLUE GASES FROM SULFUR DIOXIDE. Peysakhov, I.L.; Chertkov, B.A. Zh. Khim. Prom.; 17: No. 10, 6-14(1940). (In Russian).
Scrubbing with aqueous solution of magnesium carbonate. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; SCRUBBING; AQUEOUS SOLUTIONS; MAGNESIUM CARBONATES
- 00572 DESULFURIZATION OF GAS AND PROCESSES FOR RECOVERY OF SULFUR. Brabant, J. Usines Gaz; 64: 33-43, 49-56, 69-75(1940).
Review of industrial processes for sulfur recovery. GASES; DESULFURIZATION; REMOVAL; SULFUR; REVIEWS
- 00573 REMOVAL OF HYDROGEN SULFIDE FROM COMPRESSED [FUEL] GASES BY THE KOPPERS POTASH PROCESS. Fitz, W. Brennst.-Chem.; 21: 222-5(1940).
FUEL GAS; DESULFURIZATION; HYDROGEN SULFIDES; REMOVAL; MEDIUM PRESSURE; CLEANING; POTASSIUM CARBONATES; AQUEOUS SOLUTIONS; KOPPERS PROCESS
- 00574 REMOVAL OF HYDROGEN SULFIDE FROM COKE-OVEN GAS BY THE PHENOLATE METHOD. Kukushkin, S.I.; Chvat, M.B. Coke and Chem. (USSR); No. 1, 34-6(1940).
DESULFURIZATION; HYDROGEN SULFIDES; SODIUM CARBONATES; COAL GAS; SODIUM COMPOUNDS; ORGANOMETALLIC COMPOUNDS; PHENOLS; CARBON DIOXIDE
- 00575 ABSORPTION OF HYDROGEN SULFIDE FROM COKE-OVEN GAS BY AMMONIUM PHENOLATE SOLUTIONS. Kopelevich, G.V.; Faingol'd, S.G. Coke and Chem. (USSR); No. 7, 26-31(1940).
Addition of phenol and cresols to reduce
- loss of NH₃ during desulfurization. COAL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; AMMONIA; LOSSES; PHENOL; CRESOLS
- 00576 EXTRACTION OF HYDROGEN SULFIDE FROM COKE-OVEN GAS BY MEANS OF SODIUM CARBONATE SOLUTIONS. Hofman, M.V.; Litvinenko, M.S.; Gekht-Gurevich, I.R. Coke and Chem (USSR); No. 4-5, 41-8(1940).
COAL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; SOLUTIONS; SODIUM CARBONATES
- 00577 REMOVING AMMONIA AND HYDROGEN SULFIDE FROM COKE-OVEN GAS BY MEANS OF SULFUROUS ANHYDRIDE. Evlev, V.V. Coke and Chem (USSR); 10: No. 10, 33-36(1940).
COAL GAS; PURIFICATION; REMOVAL; HYDROGEN SULFIDES; AMMONIA; SULFUR DIOXIDE; ANHYDRIDES; DESULFURIZATION
- 00578 GAS MIXTURES SUCH AS COAL GASES FOR CATALYTIC PROCESSES. Herbert, W. (to Alien Property Custodian). US Patent 2,310,784. 9 Feb 1940.
Removal of organic sulfur compounds from coal gas by treatment with active carbon at room temperature then strongly alkalinized Fe oxide mass at above 100°. COAL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; ACTIVATED CARBON; IRON OXIDES; MEDIUM TEMPERATURE
- 00579 DESULFURIZING COAL-DISTILLATION PRODUCTS. Fohlen, J.L. French Patent 853,404. 19 Mar 1940.
Pre-desulfurization cracking using catalysts of oxides and salts of Ca, Al, Pb, Zn, Cu, Ho, and metallic selenides. COAL GAS; DESULFURIZATION; ORGANIC SULFUR COMPOUNDS; REMOVAL; CALCIUM OXIDES; MAGNESIUM OXIDES; ALUMINIUM OXIDES; LEAD OXIDES; ZINC OXIDES; COPPER OXIDES; MOLYBDENUM OXIDES; SELENIDES; SULFIDES; TELLURIDES; CATALYSTS
- 00580 TREATMENT OF SULFUR-CONTAINING GASES SUCH AS WATER GAS. Groombridge, W.H.; Page, R. (to Celanese Corp. of America). US Patent 2,239,000. 22 Apr 1940.
Mixture with water vapor at 400 to 600°C passed over a mixture of ferric and Zn oxides. COAL GAS; WATER GAS; DESULFURIZATION; HIGH TEMPERATURE; IRON OXIDES; ZINC OXIDES; CARBON MONOXIDE; HYDROGEN; SULFUR; REMOVAL
- 00581 PURIFICATION OF GASES SUCH AS COKE-OVEN GAS. Powell, A.R. (to Koppers Co.). US Patent 2,242,323. 20 May 1940.
Removal of H₂S by cyclic process. COAL GAS; DESULFURIZATION; REMOVAL; BOILING; SOLUTIONS; STEAM; VAPORS; MEDIUM TEMPERATURE; HYDROGEN SULFIDES
- 00582 REMOVAL OF ACIDIC IMPURITIES FROM FUEL GAS. Schmalenbach, A. (to Koppers Co.). US Patent 2,244,731. 10 Jun 1940.
Containing benzene; washing with aqueous alkaline solution of phenol, treating with benzene-sorbing oil; fractionation method. FUEL GAS; PURIFICATION; DESULFURIZATION; BENZENE; PHENOLS; PH VALUE; CLEANING; OILS; AQUEOUS SOLUTIONS; HYDROGEN SULFIDES; REMOVAL
- 00583 SULFUR FROM SULFUR DIOXIDE-CONTAINING GASES. Lindblad, A.R. German (FRG) Patent 693,468. 13 Jun 1940.
Pass through charge saturated with Na₂CO₃, Na₂SO₄, or Na₂S at 700 to 1100°C. GASES; DESULFURIZATION; SULFUR DIOXIDE; REMOVAL; SODIUM CARBONATES; SODIUM SULFATES; HIGH TEMPERATURE; SODIUM SULFIDES; CHARCOAL; COAL
- 00584 RECOVERY OF AMMONIA AND HYDROGEN SULFIDE FROM COAL-DISTILLATION GASES. Hiller, G. German (FRG) Patent 694,417. 4 Jul 1940.
AMMONIA; HYDROGEN SULFIDES; COAL; DISTILLATES; COAL GAS; PURIFICATION; DESULFURIZATION; REMOVAL

- 00585 REMOVING HYDROGEN SULFIDE FROM HYDROCARBON GASES SUCH AS TEXAS NATURAL GAS. Schulze, W.A. (to Phillips Petroleum Co.). US Patent 2,288,749. 7 Jul 1940.
By passing over an absorbent material (Fuller's earth) impregnated with an aqueous solution of an inorganic acid (H_2SO_4) and ions of a metal (insoluble sulfide of Cu, Cd, Ag, Hg, or Pb), this aqueous solution having low pH. NATURAL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; FULLER'S EARTH; INORGANIC ACIDS; SULFURIC ACID; COPPER SULFIDES; CADMIUM SULFIDES; SILVER SULFIDES; MERCURY SULFIDES; LEAD SULFIDES; PH VALUE
- 00586 RECOVERY OF SULFUR DIOXIDE FROM WASTE GASES. Johnstone, H.F.; Singh, A.D. Ind. Eng. Chem.; 32: No. 8, 1037-49 (Aug 1940).
From 99. American Chemical Society Meeting; Cincinnati, OH
Regeneration of sulfite-bisulfite solutions. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; SCRUBBING; SOLUTIONS; SULFITES; STEAM; REGENERATION; CALCINATION; ZINC COMPOUNDS; HEAT TRANSFER
- 00587 REMOVING HYDROGEN SULFIDE AND OTHER IMPURITIES FROM COAL-DISTILLATION GASES. (to Heinrich Koppers GmbH). German (FRG) Patent 695,575. 1 Aug 1940.
Multi-stage cleaning and compression process. COAL GAS; DISTILLATION; DESULFURIZATION; HYDROGEN SULFIDES; REMOVAL; PURIFICATION; HYDROGEN SULFIDES
- 00588 SEPARATING H_2S AND NH_3 FROM COKE-OVEN GAS. Sakmin, P.K. USSR Patent 57,803. 31 Aug 1940.
Cooling at approximately atm pressure to 0° to separate naphthalene and water then further cooling to -40 to -50 to separate NH_3 and H_2S . HYDROGEN SULFIDES; AMMONIA; COAL GAS; REMOVAL; PURIFICATION; DESULFURIZATION
- 00589 PURIFICATION OF COAL-TAR HYDROCARBONS. (to Yorkshire Tar Distillers Ltd.). British Patent 525,914. 5 Sep 1940.
Metallic thiotungstate catalyst. COAL TAR; PURIFICATION; HYDROCARBONS; NAPHTHALENE; BENZENE; ORGANIC SULFUR COMPOUNDS; DESULFURIZATION; REMOVAL; TUNGSTATES; CATALYSTS; SULFUR COMPOUNDS
- 00590 IMPROVEMENTS RELATING TO THE TREATMENT OF BOILER FLUE GASES. Leigh, J.H. (to Simon-Carves Ltd., Stockport (England)). British Patent 525,883. 6 Sep 1940. Filed date 12 Jan 1940. 1p.
Washing with ammoniacal liquor. FLUE GAS; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; WASHING; AMMONIA; SOLUTIONS; CRYSTALLIZATION; AMMONIUM COMPOUNDS; SULFATES
- 00591 EXTRACTION TREATMENT OF COAL. Dreyfus, H. US Patent 2,221,866. 19 Nov 1940.
Using hydrogenated naphthalene and pyridine, washing with NaOH, heating to >150°C in presence of ZnO. COAL EXTRACTS; COAL; SOLVENT EXTRACTION; DESULFURIZATION; NAPHTHALENE; PYRIDINES; SODIUM HYDROXIDES; ZINC OXIDES; LIQUIDS; HIGH TEMPERATURE; SULFUR; REMOVAL
- 00592 DESULFURIZING GASES. (to Compagnie de Produits Chimiques et Charbons Actifs Eduard Urbain). German (FRG) Patent 701,123. 5 Dec 1940.
By passing through bed of lava foam impregnated with Fe_2O_3 . GASES; DESULFURIZATION; FOAMS; LAVA; IRON OXIDES; SULFUR; REMOVAL
- 00593 DESULFURIZING WATER GAS. Giller, F.; Winkler, F. (to I. G. Farbenindustrie). German (FRG) Patent 701,758. 19 Dec 1940.
Organic sulfur removed by activated C impregnated with oxidizing agent. ORGANIC SULFUR COMPOUNDS; WATER GAS; COAL GAS; DESULFURIZATION; REMOVAL; ACTIVATED CARBON; NITRATES; CHROMATES; BORATES; SULFATES; MANGANATES; OXIDATION
- 00594 REMOVING AND RECOVERING SULFUR DIOXIDE FROM GASES SUCH AS BOILER FURNACE OR SMELTER GASES. Johnstone, H.F. (to Commonwealth Edison Co.). US Patent 2,225,744. 24 Dec 1940.
COAL GAS; DESULFURIZATION; ADSORPTION; BORIC ACID; GLUCOSE; GLYCEROL; SULFUR DIOXIDE; REMOVAL
- 00595 CATALYTIC REMOVAL OF ORGANIC S COMPOUNDS AND OTHER IMPURITIES FROM GAS. van Dijk, J.A. Het Gas; 61: 165-9 (1941).
Comparison of effectiveness of Luxmasse, Luxmasse with soda, Ni-kieselguhr, and cerium as catalysts. FUEL GAS; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; CATALYSTS; LUXMASSE; SODIUM CARBONATES; NICKEL; KIESELGUHR; CERIUM; COMPARATIVE EVALUATIONS
- 00596 BACTERIAL REMOVAL OF HYDROGEN SULFIDE FROM WATER GAS AND COAL GAS BY PEAT AND PEAT-OXIDE MIXTURES. Quarendon, R. J. Soc. Chem. Ind.; 60: 267-77 (1941).
COAL GAS; DESULFURIZATION; WATER GAS; HYDROGEN SULFIDES; AMMONIA; BACTERIA; PEAT
- 00597 STAATSMIJNEN—OTTO PROCESS FOR THE DESULFURIZATION OF GAS AND REMOVAL OF CYANOGEN. II. REMOVAL OF HYDROGEN SULFIDE AND RECOVERY OF SULFUR. Leithe, F. Brennst.-Chem.; 22: 49-57 (1941).
Using ferric ferrocyanide in ammoniacal solution. HYDROGEN SULFIDES; REMOVAL; GASES; DESULFURIZATION; FERROCYANIDES; AMMONIA; SOLUTIONS
- 00598 MODERN DEVELOPMENTS IN DRY-BOX PURIFICATION [OF TOWN GAS FOR REMOVAL OF HYDROGEN SULFIDE]. Keller, T.P. Gas Age; 88: No. 13, 31-3, 40 (1941).
TOWN GAS; DESULFURIZATION; WOOD; HYDROGEN SULFIDES; REMOVAL
- 00599 DESULFURIZATION OF GAS AND PROCESSES FOR RECOVERY OF SULFUR. Brabant, Schweiz. Ver. Gas- u. Wasserfach. Monats-Bull.; 21: 26-30, 41-2, 96-100, 114-16 (1941).
GASES; DESULFURIZATION; SULFUR; REMOVAL; REVIEWS
- 00600 SCRUBBING AMMONIA, HYDROGEN SULFIDE, AND CARBON DIOXIDE FROM COAL-DISTILLATION GASES. Eymann, C. Gas- Wasserfach; 84: 573-9 (1941).
Using H_2O or aqueous NH_3 . AMMONIA; HYDROGEN SULFIDES; CARBON DIOXIDE; DISTILLATION; GASEOUS PRODUCTS; COAL GAS; CLEANING; WATER; AQUEOUS SOLUTIONS; SEPARATION PROCESSES; DESULFURIZATION; PURIFICATION; REMOVAL
- 00601 WET METHODS FROM DESULFURIZATION OF GASES. Rosendahl, F. Gas- Wasserfach; 84: 463-7, 477-83 (1941).
GASES; DESULFURIZATION; REVIEWS
- 00602 RECENT WET PROCESSES FOR REMOVING SULFUR FROM COKE-OVEN GAS. van Ahlen, A. Gluckauf; 77: 481-7 493-501 (1941).
Oxidation of H_2S to S; Fe^{++} or $MnSO_4$ as catalysts. SULFUR; REMOVAL; DESULFURIZATION; HYDROGEN SULFIDES; OXIDATION; THYLOX PROCESS; CATALYSTS; COAL GAS
- 00603 SUITABILITY OF FRENCH IRON OXIDE DEPOSITS FOR GAS PURIFICATION. Charrin, V. J. Usines Gaz; 65: 260-1 (1941).
Removal of sulfur from manufactured gas. GASES; DESULFURIZATION; REMOVAL; SULFUR; IRON OXIDES
- 00604 REMOVING ORGANICALLY BOUND SULFUR FROM

- WATER GAS. Giller, F.; Winkler, F. (to I. G. Farbenindustrie). German(FRG) Patent 702,605. 16 Jan 1941.
Gas mixed with oxidants before passing through activated C; other variations. ORGANIC SULFUR COMPOUNDS; COAL GAS; WATER GAS; REMOVAL; DESULFURIZATION; OXIDATION; CHLORIDES; HYDROGEN PEROXIDE; OZONE; ACTIVATED CARBON; SODIUM CARBONATES; NITROGEN OXIDES; AMMONIA
- 00605 PURIFICATION OF GASES CONTAINING H₂S AND CO₂. Powell, A.R. (to Koppers Co.). US Patent 2,318,522. 4 May 1941.
Using an absorbent solution of an alkali metal carbonate and bicarbonate. GASES; PURIFICATION; REMOVAL; CARBON DIOXIDE; HYDROGEN SULFIDES; SOLUTIONS; METALS; CARBONATES; DESULFURIZATION
- 00606 REMOVING HYDROGEN SULFIDE AND AMMONIA FROM GASES WITH SIMULTANEOUS RECOVERY OF ELEMENTAL SULFUR AND AMMONIUM SULFATE. Szombathy, K.v. German(FRG) Patent 706,846. 8 May 1941.
By washing the gas with a solution containing (NH₄)₂S₂O₃ and an organic oxygen carrier, preferably hydroxybenzene. GASES; PURIFICATION; REMOVAL; AMMONIA; HYDROGEN SULFIDES; AMMONIUM COMPOUNDS; THIOSULFATES; PHENOL; DESULFURIZATION
- 00607 REMOVING SULFUR DIOXIDE FROM GASES. Fanelli, R.; Bacon, R.F. (to Raymond F. Bacon). German(FRG) Patent 706,833. 8 May 1941.
By absorption in an aqueous solution of a nonvolatile water-soluble salt, e.g. alkali, or NH₄ salt of a weak acid such as benzoic, fumaric, phthalic, salicylic, or sulfanilic acids. GASES; DESULFURIZATION; REMOVAL; SULFUR DIOXIDE; AMMONIUM COMPOUNDS; BENZOIC ACID; FUMARIC ACID; PHTHALIC ACID; SALICYLIC ACID; SULFANILIC ACID; AQUEOUS SOLUTIONS
- 00608 REMOVING HYDROGEN SULFIDE FROM GASES AND SIMULTANEOUSLY RECLAIMING SULFUR. Szombathy, K.v. German(FRG) Patent 707,914. 29 May 1941.
Using solutions containing thiosulfates and an oxygen transferring compound (hydroxybenzene). GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; THIOSULFATES; PHENOL; SOLUTIONS; OXYGEN
- 00609 HIGH-BOILING STABLE FUEL OILS OR MOTOR-FUEL OILS. (to I. G. Farbenindustrie). German(FRG) Patent 708,258. 5 Jun 1941.
Derived from pressure extraction or pressure hydrogenation of coal. COAL; COAL PASTES; HYDROGENATION; SOLVENT EXTRACTION; LIQUID PRODUCTS; SYNTHETIC FUELS; PRODUCTION
- 00610 REMOVING ORGANIC SULFUR FROM GASES. (to I. G. Farbenindustrie). German(FRG) Patent 708,933. 26 Jun 1941.
Using activated carbon. GASES; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; ACTIVATED CARBON
- 00611 REMOVING HYDROGEN SULFIDE FROM GASES. Pieters, H.A.J. (to De Directie van de Staatsmijnen in Limburg). German(FRG) Patent 710,027. 24 Jul 1941.
Using a wash solution containing Fe cyanide compounds. GASES; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; IRON COMPOUNDS; CYANIDES
- 00612 NICKEL AND COBALT SUB-SULFIDE CATALYSTS FOR DECOMPOSING ORGANIC SULFUR COMPOUNDS IN WATER GAS OR COAL GAS. Griffith, R.H.; Plant, J.H.G. (to Gas Light and Coke Co.). US Patent 2,295,653. 15 Sep 1941.
COAL GAS; WATER GAS; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; CATALYSTS; NICKEL
- SULFIDES; COBALT SULFIDES; FUEL GAS
- 00613 REMOVAL OF ORGANIC SULFUR FROM GASES AND VAPORS SUCH AS CITY GAS. Kemper, W.A. (to Consolidated Gas Electric Light and Power Co. of Baltimore). US Patent 2,299,149. 20 Oct 1941.
Using an activated alkali carbonate such as that of Na. FUEL GAS; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; SODIUM CARBONATES; HIGH TEMPERATURE
- 00614 PURIFYING GAS MIXTURES SUCH AS FUEL GASES. Matheson, G.L. (to Standard Oil Development Co.). US Patent 2,259,901. 21 Oct 1941.
Washing with solution of alkali salt of dichlorophenate and free dichlorophenol. FUEL GAS; DESULFURIZATION; HYDROGEN SULFIDES; CARBON DIOXIDE; ORGANIC CHLORINE COMPOUNDS; PHENOLS
- 00615 REMOVING H₂S AND OTHER ACID IMPURITIES FROM COAL-DISTILLATION GASES. van der Hoeven, B.J.C.; Gollmar, H.A. (to Koppers Co.). German(FRG) Patent 714,231. 30 Oct 1941.
Washing of gases with alkali phenolates. HYDROGEN SULFIDES; REMOVAL; COAL GAS; DESULFURIZATION
- 00616 PURIFICATION OF DISTILLATION GASES. (to I. G. Farbenind.). German(FRG) Patent 715,479. 27 Nov 1941.
Removal of NH₃, H₂S, and HCN by washing. HYDROGEN SULFIDES; AMMONIA; HYDROCYANIC ACID; REMOVAL; COAL GAS; PURIFICATION
- 00617 WET PURIFICATION OF ILLUMINATING GAS. I. SEPARATION OF S BY METAL THIOSULFATE. QUALITATIVE STUDY OF THE REACTIONS SO₂ + 2H₂S = 2H₂O + 3S AND H₂S₂O₃ + 2H₂S = 3H₂O + 4S. BLANK TESTS MADE AT THE "CATALANA DE GAS," BARCELONA, AUGUST AND SEPTEMBER, 1918. Chorower, C. Anales fis. Quim. (Spain); 38: 105-48(1942).
FUEL GAS; DESULFURIZATION; REMOVAL; HYDROGEN SULFIDES; METALS; THIOSULFATES; ZINC SULFATES
- 00618 REMOVAL OF ORGANIC SULFUR COMPOUNDS IN WATER GAS BY MEANS OF YELLOW OCHER. Funasaka, W.; Tahara, H. J. Soc. Chem. Ind., Japan; 45: 388(1942).
WATER GAS; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; IRON OXIDES; HYDRATES; MINERALS
- 00619 MILK-OF-LIME WASH OF PRODUCER GAS. Mantel, W.; Schreiber, W. Glueckauf; 78: 491-5(1942).
CaO requirements in milk-of-lime for S and CO₂ removal. FUEL GAS; PURIFICATION; REMOVAL; SULFUR; CARBON DIOXIDE; CALCIUM OXIDES; DESULFURIZATION
- 00620 S IN FUEL GASES. Lissner, A. Glastechn. Ber.; 20: 228-34(1942).
SULFUR; FUEL GAS; REMOVAL; DESULFURIZATION; GERMAN WORK; COAL GASIFICATION
- 00621 DESULFURIZATION OF GAS WITH AMMONIA WATER. Scheer, W. Del u. Kohle; 38: 1021-5(1942).
DESULFURIZATION; GASES; AMMONIA; HYDROGEN SULFIDES; REMOVAL; GBAG-HANSA PROCESS; OTTO PROCESS; COLLIN-SAARGRUBEN PROCESS; BAEHR-OTTO SULFONOL PROCESS; KOPPERS PROCESS
- 00622 REPORT OF COMMITTEE OF ENQUIRY ON SULFUR REMOVAL [FROM TOWN'S GAS]. Hollings, H.; Currier, G.E.; Hartley, H. Inst. Gas Engrs., Commun.; 250: 10p.(1942).
Removal of organic S compounds using active C or oil washing. FUEL GAS; DESULFURIZATION; REMOVAL; ORGANIC SULFUR COMPOUNDS; ACTIVATED CARBON; BENZENE