29 May 1963.
Gas mixture brought into contact with aqueous K_2CO_3 solution at more than 50, preferably 350, psig and above 200°F, preferably 235°F. CARBON DIOXIDE;REMOVAL; HYDROGEN SULFIDES;PURIFICATION;DESULFURIZATION; POTASSIUM CARBONATES;AQUEOUS SOLUTIONS; SCRUBBING;FUEL GAS

01335 CATALYTIC CONVERSION OF FUEL GASES CONTAINING CARBON MONOXIDE AND ORGANIC SULFUR COMPOUNDS. Landau, M.; Todhunter, K.H.; Kennaway, T. (to Simon-Carves Ltd.). German(FRG) Patent 1,149,486. 30 May 1963.
CO converted to CO_2 and H by steam and elimination of H_2S and organic S compounds by means of Fe oxide catalysts that may contain inert carriers and Mn, Cr, or Cu promoters in fixed or fluid beds. FUEL GAS;CATALYSTS;CARBON MONOXIDE;ORGANIC SULFUR COMPOUNDS;CARBON DIOXIDE;HYDROGEN;STEAM;HYDROGEN SULFIDES;IRON OXIDES;PROMOTERS;REGENERATION;REMOVAL; PURIFICATION;DESULFURIZATION

01336 PURIFIER SYSTEMS FOR REMOVAL OF HYDROGEN SULFIDE FROM FUEL GASES. Thompson, R.J.S. (to W. C. Holmes and Co. Ltd.). British Patent 928,461. 12 Jun 1963.
Series of interconnected containers containing Fe oxide. HYDROGEN SULFIDES;REMOVAL; FUEL GAS;DESULFURIZATION;IRON OXIDES;EQUIPMENT

01337 REMOVING SULFUR COMPOUNDS FROM GAS MIXTURES. Thormann, K.; Herbert, W.; Kohrt, H.U. (to Metallgesellschaft). German(FRG) Patent 1,154,591. 19 Sep 1963.
H_2S and other S-containing compounds poison catalysts; cooled gas is washed by N-alkylated pyrolidones or piperidones to absorbed S-containing compounds. HYDROGEN SULFIDES;REMOVAL; CATALYSTS;CATALYST POISONING;SYNTHESIS GAS; DESULFURIZATION;WASHING;ORGANIC SOLVENTS; REGENERATION

01338 PURIFICATION OF GASES. (to Metallgesellschaft). British Patent 938,392. 2 Oct 1963.
Equipment and procedure for removal of H_2S, CO_2, organic S compounds, hydrocarbons, or steam from gases. HYDROGEN SULFIDES;ORGANIC SULFUR COMPOUNDS;CARBON DIOXIDE;HYDROCARBONS; STEAM;REMOVAL;WASHING;PURIFICATION;FUEL GAS; DESULFURIZATION;EQUIPMENT

01339 PURIFICATION OF COMMERCIAL GASES. Opderbecke, O. (to Didier-Werke). German(FRG) Patent 1,156,391. 31 Oct 1963.
Equipment. AMMONIA;HYDROGEN SULFIDES;REMOVAL; PURIFICATION;DESULFURIZATION;SCRUBBING; EQUIPMENT;GASES

01340 COKE OF LOW SULFUR CONTENT FROM SULFUR-RICH COAL. (to L. and C. Steinmueller GmbH). Belgian Patent 633,546. 4 Nov 1963.
Coke desulfurized at 420-500° in presence of inert gas and water vapor. COKE;SULFUR;REMOVAL; DESULFURIZATION;HIGH TEMPERATURE

01341 GAS PURIFICATION. Klonne, M.; Klonne, A. (to August Klonne). British Patent 941,618. 13 Nov 1963.
Removal of desired component by reaction with entrained sand; for H_2S removal, $Fe(OH)_2$, Fe_2O_3, or NaOH particles are effective. HYDROGEN SULFIDES;REMOVAL;DESULFURIZATION;GASES; IRON HYDROXIDES;SODIUM HYDROXIDES;IRON OXIDES

01342 SEPARATION OF GAS MIXTURES, ESPECIALLY DESULFURIZING COMBUSTION GASES. (to Siemens-Schuckertwerke). Belgian Patent 632,752. 25 Nov 1963.
Description of apparatus; gases treated with adsorbents, e.g., silica gel impregnated with Fe oxide. EQUIPMENT;DESULFURIZATION;SULFUR COMPOUNDS;REMOVAL;SILICA GEL;IRON OXIDES;GASES

01343 HYDRATED FERRIC OXIDE FOR USE IN GAS PURIFICATION. (to Bergwerksverband GmbH). British Patent 943,672. 4 Dec 1963.
Highly reactive Fe(III) oxide for removal of H_2S prepared by precipitating Fe(II) hydroxide from solution of Fe(II) salt and inert salt and separating, washing, shaping, and drying precipitate. IRON HYDROXIDES;HYDROGEN SULFIDES; REMOVAL;COAL GAS;DESULFURIZATION;CHEMICAL PREPARATION;IRON OXIDES

01344 REMOVAL OF ORGANIC SULFUR-CONTAINING COMPOUNDS FROM THE ETHYLENE FRACTION OF COKE-OVEN GAS WITH THE AID OF POLY(ALKYLBENZENES). Pinsker, A.E.; Kir'yanova, T.V.; Ogii, L.L. Khim. Prom. (Moscow); 2: 92-4(1964).
Removal of thiophene and carbon disulfide. ORGANIC SULFUR COMPOUNDS;REMOVAL;COAL GAS; THIOPHENE;CARBON SULFIDES;DESULFURIZATION

01345 REMOVAL OF HYDROGEN CYANIDE AND HYDROGEN SULFIDE FROM GAS WORKS AND COKE-OVEN LIQUID EFFLUENTS. Scholz, H.G. Gas-Wasserfach; 105: No. 15, 396-8(1964).
Use of ferric compounds; HCN converted into cyanates and complex compounds. HYDROCYANIC ACID;REMOVAL;HYDROGEN SULFIDES;COAL GAS;COAL; CARBONIZATION;LIQUID WASTES;IRON COMPOUNDS; CATIONS;PURIFICATION;DESULFURIZATION

01346 REMOVAL OF ORGANIC SULFUR COMPOUNDS FROM BROWN COAL HIGH-TEMPERATURE (BHT-COKE OVEN) GAS BY PRESSURE-WASHING PROCESSES. Balleyr, W. Freiberger Forschungsh.; 339A: 135-48(1964). (In German).
Flow disgrams of washing and analytical procedures; discussion of recycling and regeneration of wash liquids. REMOVAL;ORGANIC SULFUR COMPOUNDS;COKE-OVEN GAS;DESULFURIZATION; WASHING;THIOLS;THIOPHENE;FLOWSHEETS

01347 POSSIBILITY OF LOWERING THE SULFUR CONTENT OF METALLURGICAL COKE DURING DRY QUENCHING. Deshalit, G.I. (Polytech. Inst., Kharkov). Izv. Vyssh. Ucheb. Zaved., Khim. Khim. Tekhnol.; 7: No. 1, 169-70(1964).
Blowing of cok with air or air-steam mixture. COKE;SULFUR;REMOVAL;AIR;STEAM; DESULFURIZATION

01348 EXPERIENCES WITH CALCINED MATERIAL IN THE PRESSURE DESULFURIZATION OF COKE-OVEN GAS. Bamberg, M. Gas- Wasserfach; 105: No. 39, 1080-3(1964). (In German).
Tests made to determine effectiveness of roasting as means of regenerating materials used to remove H_2S from coke-oven gas. COAL GAS; DESULFURIZATION;HYDROGEN SULFIDES;REMOVAL; LUXMASSE;REGENERATION;RUHRMASSE

01349 POSSIBILITIES OF ELIMINATING PYRITIC SULFUR WHILE ENRICHING COAL FROM THE BALKAN COAL BASIN. Angelova, G.; Totsev, D. Izv. Inst. Obshta Neorg. Khim. Bulgar. Akad. Nauk.; No. 2, 95-108(1964).
Use of flotation and centrifugation. SULFUR; PYRITES;COAL;FLOTATION;CENTRIFUGATION; DESULFURIZATION;REMOVAL

01350 FLUIDIZED-BED (WITH OXIDANTS) DESULFURIZATION OF NONCOKING COAL FOR PRODUCING METALLURGICAL COKE. Blum, I.; Cindea, V.; Nistor, I.; Ionescu, C. Freiberger Forschungsh.; A277: 107-23(1964).
Review of literature on desulfurization of coal; physical methods are unsatisfactory. FLUIDIZED BED;DESULFURIZATION;COAL;COKE; PRODUCTION

01351 REGENERATOR PROCESS FOR THE SEPARATION OF COKE-OVEN GAS. Becker, R. Kaeltetechnik; 16: No. 8, 239-41(1964).

Coke-oven gas after removal of tar and ammonia, is cooled to eliminate impurities such as benzene, S compounds, carbon dioxide, water, nd methane. COAL GAS;COAL TAR;AMMONIA;REMOVAL; PURIFICATION;SULFUR COMPOUNDS;DESULFURIZATION; BENZENE;WATER;CARBON DIOXIDE;METHANE;EQUIPMENT

01352 REMOVAL OF HYDROGEN SULFIDE FROM COKE-OVEN GAS. Serkova, E.F. Vestn. Tekhn, i Ekon. Inform. Nauchn.-Issled. Inst. Tekhn.-Ekon. Issled. Gos. Kom. Khim. Prom. pri Gosplane SSSR; 2: 17-18(1964). (In Russian).
Hydrogen sulfide removed by soda scrubbing. HYDROGEN SULFIDES;REMOVAL;COAL GAS; DESULFURIZATION;COLUMN PACKING;EQUIPMENT; SCRUBBING

01353 ATTEMPTED REMOVAL OF SULFUR FROM COAL AND COKE. Given, P.H.; Jones, J.R. (Pennsylvania State Univ., University Park). Am. Chem. Soc., Div. Fuel Chem., Preprints; 8: No. 3, 185-91(1964). (In English).
COAL;REMOVAL;SULFUR;COKE;DESULFURIZATION; PYRITES;BITUMINOUS COAL

01354 COEFFICIENTS OF MASS TRANSFER DURING ABSORPTION OF SO_2 FROM GASES BY SOLUTIONS OF AMMONIUM SULFITE AND BISULFITE. Chertkov, B.A. Zh. Prikl. Khim.; 37: No. 11, 2437-55(1964). (In Russian).
FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;CHEMISORPTION;AMMONIUM COMPOUNDS; SULFITES;MASS TRANSFER

01355 REMOVAL OF CARBON DISULFIDE AND CARBONYL SULFIDE FROM GASES. Golyand, S.M.; Kuz'mak, M.M. USSR Patent 160,158. 16 Jan 1964.
Gases containing carbon disulfide and carbon oxysulfide purified by catalytic conversion with steam; degree of purificaton increased by use of natural bauxite or aluminium oxide gel previously heated to 350-400° as catalyst. CARBON SULFIDES;CARBON OXIDES;STEAM;CATALYSTS; ALUMINIUM OXIDES;BAUXITE;REMOVAL;GASES; DESULFURIZATION

01356 CONVERSION OF CARBON MONOXIDE. Bratzler, K. (to Metallgesellschaft). Belgian Patent 641,295. 1 Apr 1964.
Removal of CO and S-containing compounds from coke-oven gas; gas washed with solution of soda and anthraquinonesulfonic acid as catalyst; diagram of apparatus. CARBON MONOXIDE;COAL GAS; DESULFURIZATION;REMOVAL;PURIFICATION;SULFUR COMPOUNDS;WASHING;HYDROGEN SULFIDES;HYDROCYANIC ACID;EQUIPMENT

01357 PURIFICATION OF TOWN GAS. Goette, A. German(FRG) Patent 1,166,968. 2 Apr 1964.
Activity of Fe-containing materials used in dry removal f H_2S from own gas raised by treating material with gamma radiation; use of bog iron ore continuously irradiated with 700 mr./hr from cesium-137 source. TOWN GAS; DESULFURIZATION;HYDROGEN SULFIDES;REMOVAL;GAMMA RADIATION;IRON COMPOUNDS;RADIATION EFFECTS; CESIUM 137

01358 REMOVAL OF HYDROGEN SULFIDE FROM GASES. Komander, A.A.; Tyreman, N. (to Imperial Chemical Industries Ltd.). British Patent 958,078. 13 May 1964.
Hydrogen sulfide removed from gas by passage through solution of 1,2-naphthaquinone-4-sulfonic acid or its salt in aueous solution. HYDROGEN SULFIDES;REMOVAL;DESULFURIZATION; SULFONIC ACIDS;GASES;ABSORPTION

01359 PRESENT POSITION OF FLUE-GAS DESULFURIZATION. Johswich, F. Brennst.-Waerme-Kraft; 17: No. 5, 238-45(1965). (In German).
Comparison of various methods. FLUE GAS; DESULFURIZATION;COST;SULFUR DIOXIDE;REMOVAL; REINLUFT PROCESS;PENELEC PROCESS;WICKERT PROCESS;VANADIUM;CATALYSTS

01360 DESULFURIZATION OF COKE-OVEN GAS WITH ARSENIC-SODA SOLUTION. Szmicsek, S. Magy. Kem. Lapja; 20: No. 5, 241-6(1965). (In Hungarian).
Coke-oven gas containing H_2S washed countercurrently with solution containing Na thiosulfate, Na thiocyanate, and As oxide. DESULFURIZATION;COAL GAS;HYDROGEN SULFIDES; REMOVAL;COUNTER CURRENT;WASHING;SODIUM COMPOUNDS;THIOSULFATES;THIOCYANATES;ARSENIC OXIDES;STEAM

01361 EFFECT OF MOLTEN CAUSTIC ON PYRITIC SULFUR IN BITUMINOUS COAL. Masciantonio, P.X. (U. S. Steel Corp., Monroeville, PA). Fuel; 44: No. 4, 269-75(1965). (In English).
Pyrite S converted to sulfides that are soluble in molten caustic and are completely removed. PYRITES;SULFUR;BITUMINOUS COAL;COAL; SODIUM HYDROXIDES;POTASSIUM HYDROXIDES;MOLTEN SALTS;REMOVAL;DESULFURIZATION

01362 REDUCTION OF SULFUR IN MINUS-28-MESH BITUMINOUS COAL. Miller, F.G. (Heyl and Patterson, Inc., Pittsburgh, PA). Trans. AIME; 229: 7-15(1965). (In English).
Pyritic S occurs in increasing amounts in high-gravity fractions. COAL;SULFUR;REMOVAL; BITUMINOUS COAL;PYRITES;FLOTATION; DESULFURIZATION

01363 COMPARISON BETWEEN GAS DESULFURIZATION PLANTS WITH A SOLID PURIFIER. Koehler, K.H. Glueckauf; 101: No. 9, 568-76(1965). (In German).
DESULFURIZATION;FUEL GAS;HYDROGEN SULFIDES; EQUIPMENT;REMOVAL

01364 GAS PURIFICATION. I. REMOVAL OF HYDROGEN SULFIDE FROM GAS BY COMMERCIAL DESULFURIZATION CATALYSTS. Sakata, H.; Wakatsuki, A. Nagaoka Kogyo Tanki Daigaku Koto Semmon Gakko Kenkyu Kiyo; 1: No. 4, 599-604(1965). (In Japanese).
Use of activated C, ferric oxide, or ZnO; combination of wet and dry desulfurization method recommended for various S compounds in gas. HYDROGEN SULFIDES;REMOVAL;CATALYSTS; DESULFURIZATION;ACTIVATED CARBON;IRON OXIDES; ZINC OXIDES;SULFUR COMPOUNDS;FUEL GAS

01365 SULFUR REDUCTION FROM FLUIDIZATION COKE (LABORATORY PHASE). Nistor, I.; Hristescu, I.; Rosenberg, M. (Inst. Acad. R.P.R., Bucharest, Romania). Stud. Cercet. Energ. Electroteh.; 15: No. 2, 413-20(1965). (In Romanian).
At 650-750° and with mixture of 70% steam and 30% air as fluidization agent, about 30% of S may be eliminated. SULFUR;REMOVAL;STEAM;AIR; FLUIDIZATION;COKE;DESULFURIZATION;HIGH TEMPERATURE

01366 PRODUCTION OF AMMONIUM SULFIDE FROM THE HYDROGEN SULFIDE GAS OF VACUUM-CARBONATE DESULFURIZATION [OF COKE GAS]. Litvinenko, M.S.; Khvat, M.B.; Gurevich, N.A. Koks i Khim.; 8: 61-4(1965). (In Russian).
Pilot plant constructed to obtain hydrogen sulfide from coke gas and combine it with ammonium hydroxide to form ammonium sulfide. HYDROGEN SULFIDES;AMMONIUM COMPOUNDS;SULFIDES; COAL GAS;DESULFURIZATION;PILOT PLANTS;DIAGRAMS; CHEMICAL REACTIONS;PRODUCTION

01367 AMMONIA METHOD FOR REMOVING HYDROGEN SULFIDE FROM COKE-OVEN GAS UNDER LABORATORY CONDITIONS. Khvat, M.B.; Pertseva, N.Y.; Kronik, I.L. Sb. Nauchn. Tr. Ukr. Nauchn.-Issled. Ugelkhim. Inst.; 1964: No. 16, 90-101(1965). (In Russian).

Use of ammonia absorbent solution to remove S from gas; high degree of absorption possible only up to 25°. AMMONIA;HYDROGEN SULFIDES;COAL GAS;REMOVAL;DESULFURIZATION;AQUEOUS SOLUTIONS

01368 IMPROVEMENT OF THE ARSENIC-SODA PURIFICATION PROCESS FOR REMOVING SULFUR. Kuznetsov, M.D.; Zvarskii, A.A. Koks i Khim.; No. 11, 42-7(1965). (In Russian).
Concentration of As. SULFUR;REMOVAL;PILOT PLANTS;COAL GAS;DESULFURIZATION;ARSENIC OXIDES; HYDROGEN SULFIDES;ABSORPTION

01369 METHODS OF REDUCING EMISSION OF OXIDES OF SULFUR FROM COAL. Perry, H. (U. S. Dept. of Interior, Bur. of Mines, Washington, DC). Proc. Amer. Power Conf.; 27: 107-13(1965). (In English).
Absorption of S oxides by alkalized alumina at 625°F; Reinluft process; catalytic conversion of SO_2 to SO_3 resulting in formation of H_2SO_4. COAL;REMOVAL;FLUE GAS;COMBUSTION; SULFUR OXIDES;REINLUFT PROCESS;SULFURIC ACID; PRODUCTION;DESULFURIZATION

01370 LOWERING THE SULFUR CONTENT OF COAL. Mascientonio, P.X. (to United States Steel Corp.). US Patent 3,166,483. 19 Jan 1965.
COAL;DESULFURIZATION;SULFUR;POTASSIUM HYDROXIDES;REMOVAL;SODIUM HYDROXIDES;MOLTEN SALTS

01371 PURIFICATION OF COKE-OVEN GASES AND PRODUCTION OF A COMBUSTIBLE GAS RICH IN HYDROGEN AND CARBON MONOXIDE. Bruecker, R.; Huck, G.; Koelling, G. (to Bergwerksverband GmbH). German(FRG) Patent 1,186,974. 11 Feb 1965.
Crude coke-oven gas purified and most of ar, aromatics, naphthalene, nitrogen compounds, and S compounds removed using steam and oxide or sulfide catalyst. COAL GAS;FUEL GAS;HYDROGEN; CARBON DIOXIDE;PRODUCTION;DESULFURIZATION; PURIFICATION;COAL TAR;AROMATICS;REMOVAL; NAPHTHALENE;PYRIDINES;AMMONIA;CATALYSTS;STEAM; NICKEL SULFIDES;TUNGSTEN SULFIDES;NICKEL; ALUMINIUM OXIDES

01372 REMOVAL OF VOLATILE SULFUR COMPOUNDS FROM FUEL GAS. Summers, W.T. (to Coal Industry (Patents) Ltd.). British Patent 983,391. 17 Feb 1965.
Use of scrubber containing solvent, such as petroleum or coal tar oil, distilling at 220-360°. FUEL GAS;DESULFURIZATION;SULFUR COMPOUNDS; REMOVAL;VOLATILITY;ORGANIC SOLVENTS;SCRUBBING; COAL TAR OILS;PETROLEUM

01373 (PB--185466) FEASIBILITY STUDY - HYDRODESULFURIZATION OF FUELS UNDER CORONA DISCHARGE CATALYSIS. Browne, W.R.; Kawahata, M. 9 Mar 1965. Contract PH--86-65-1. 26p. CFSTI $6.00.
Hydrodesulfurization of bituminous coal by corona discharge catalysis. COAL; DESULFURIZATION;HYDROGEN;CORONA DISCHARGES;IRON SULFIDES;CATALYSTS

01374 REMOVAL OF HYDROGEN SULFIDE IN CARBON MONOXIDE CONVERSION TO HYDROCARBONS. (to Metallgesellschaft). British Patent 991,529. 12 May 1965.
H_2S oxidized by air to S and then to ulfate or thiosulfate; HCN forms thiocyanate. HYDROGEN SULFIDES;REMOVAL;CARBON MONOXIDE;REDUCTION; HYDROCARBONS;PRODUCTION;OXIDATION;SULFUR; SULFATES;THIOSULFATES;AIR;THIOCYANATES; HYDROCYANIC ACID;DESULFURIZATION

01375 CATALYTIC PURIFICATION OF COKE OVEN GASES. Lhonore, P.; Quibel, J. (to Azote and Produits Chimiques). French Patent 1,398,874. 14 May 1965.
Two reactors with Pd catalyst; gas first passed through hydrogenation equipment. COAL GAS;CATALYSTS;PALLADIUM;REGENERATION;STEAM;AIR; PURIFICATION

01376 REMOVAL OF SULFUR DIOXIDE FROM FLUE GASES: BCR CATALYTIC GAS PHASE OXIDATION PROCESS. Zawadzki, E.A. Trans. Soc. Mining Engrs. AIME; 232: 241-6(Sep 1965).
Vanadium catalyst was developed; H_2SO_4 is by-product. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR DIOXIDE;OXIDATION;CATALYSTS;VANADIUM; SULFURIC ACID;HEAT EXCHANGERS;ELECTROSTATIC PRECIPITATORS

01377 SULFUR REMOVAL FROM GASES. Flesch, W. (to Badische Anilin- and Soda-Fabrik). German(FRG) Patent 1,199,920. 2 Sep 1965.
SULFUR;REMOVAL;AMMONIA;OXYGEN;FUEL GAS; DESULFURIZATION;SYNTHESIS GAS

01378 (PB--176846) ECONOMIC FEASIBILITY STUDY OF COAL DESULFURIZATION. VOLUME II. Oct 1965. Contract PH--86-65-29. 113p. CFSTI $6.00.
COAL;DESULFURIZATION;REMOVAL;SULFUR COMPOUNDS;PYRITES;WASHING;COST

01379 (PB--176845) ECONOMIC FEASIBILITY STUDY OF COAL DESULFURIZATION. VOLUME I. Oct 1965. Contract PH--86-65-29. 82p. CFSTI $6.00.
COAL;DESULFURIZATION;REMOVAL;SULFUR COMPOUNDS;WASHING;COST;ECONOMICS.

01380 EXPERIMENTS ON THE REMOVAL OF SULUR FROM COAL AND COKE. Given, P.H.; Jones, J.R. (Pennsylvania State Univ., University Park). Fuel; 45: No. 2, 151-8(1966). (In English).
SULFUR;REMOVAL;COAL;COKE;DESULFURIZATION

01381 USE OF PYRITE-DEPRESSING AND - ACTIVATING REAGENTS DURING DESULFURIZATION OF COAL SLURRIES BY FLOTATION. Kun, E.; Szabo-Pelsoczi, M. Publ. Hung. Res. Inst. Mining; 8-9: 233-8(1966). (In German).
Flotation of coal slurries with pyrite-depressing CaO, NaCN, or collectors such as ethyl or butyl xanthate. COAL;SLURRIES; DESULFURIZATION;PYRITES;REMOVAL;FLOTATION

01382 REMOVAL OF HYDROGEN SULFIDE FROM GASES BY USING ORGANIC OXYGEN CARRIERS. Wojdylo, S. (Zaklady Chem., Oswiecim, Poland). Przem. Chem.; 45: No. 11, 636-8(1966). (In Polish).
Use of quinones and pyrocatechol as oxygen carriers. HYDROGEN SULFIDES;REMOVAL;PHENOLS; QUINONES;OXIDATION;AMMONIA;ABSORPTION;FUEL GAS; DESULFURIZATION

01383 DESULFURIZATION OF COALS DURING THEIR SEMICOKING BY COKE-HEAT CARRIER. Fomenko, O.S.; Belokon, S.M. (Dnepropetr. Khim.-Tekhnol. Inst. Dnepropetrovsk). Khim. Tekhnol., Respub. Mezhvedom. Nauch.-Tekh. Sb.; No. 4, 55-60(1966). (In Russian).
DESULFURIZATION;COAL;HEATING;STEAM

01384 ABSORPTION OF HYDROGEN SULFIDE BY ARSENIC-SODA SOLUTIONS UNDER TURBULENT (FOAMING) CONDITIONS. Pozin, M.E.; Tarat, E.Y.; Tereshchenko, L.Y.; Orekhov, I.I. (Lensovet Technol. Inst., Leningrad). Zh. Prikl. Khim.; 39: No. 8, 1712-19(1966). (In Russian).
To purify coke-oven gas of residual H sulfide concentrations of 1.5-2.0 g/cu. m., 13-14 stages are required whereas 38 are needed for purification to tolerable environmental levels. HYDROGEN SULFIDES;ABSORPTION;ARSENIC OXIDES;SODIUM CARBONATES;AQUEOUS SOLUTIONS; EQUIPMENT;REMOVAL;COAL GAS;DESULFURIZATION

01385 COAL GAS PURIFICATION IN THE LEOPOLDAU GAS WORKS. Rumler, G. Gas, Wasser, Waerme;

20: No. 1, 9-16(1966). (In German).
Gas scrubbed with solution containing free ammonia, combined ammonia, thiosulfate, sulfate, thiocyanate, hydrogen sulfide, and hydroquinone. COAL GAS;PURIFICATION;SCRUBBING; AMMONIA;THIOSULFATES;SULFATES;THIOCYANATES; HYDROGEN SULFIDES;EQUIPMENT;SULFUR;RECOVERY; DESULFURIZATION

01386 RECOVERY OF SULFUR FROM COKE OVEN GAS. Mazur, M.; Dan, V.; Besliu, L. (Combinatul Siderurgic, Hunedoara, Romania). Metallurgia; 18: No. 8, 433-6(1966). (In Romanian).
Ammonia interfered in H sulfide recovery and in debenzenization process; optimal S recovery obtained when pH was kept at 7.8-8.2 and when HCN elimination was reduced. SULFUR;COAL GAS; RECOVERY;DESULFURIZATION;HYDROGEN SULFIDES; AMMONIA;HYDROCYANIC ACID;PH VALUE

01387 PURIFICATION OF COKING GAS FROM H_2S BY THE AMMONIA METHOD. Lebedeva, G.N.; Patrikeev, V.S.; Kotlik, S.B.; Shebchenko, V.R.; Pervushina, N.P. Koks i Khim.; 1966: No. 3, 33-9(1966). (In Russian).
Description of equipment. HYDROGEN SULFIDES; REMOVAL;DESULFURIZATION;COAL GAS;AMMONIA; EQUIPMENT

01388 SULFIDES REMOVAL FROM FUEL GASES CONTAINING NO OXYGEN. Altybaev, M.; Strel'tsov, V.V. (Chem.-Technol. Inst., Ivanovo). Koks i Khim.; 8: 44-7(1966). (In Russian).
FUEL GAS;SULFIDES;REMOVAL;DESULFURIZATION

01389 DESULFURATION OF THE JIU VALLEY COAL BY MECHANICAL AND MAGNETIC METHODS. Cindea-Muntean, V.; Gonteanu, A. Metallurgia; 18: No. 5, 249-52(1966). (In Romanian).
Coal contains 2.8-3.2% S, which is usually retained in coke made from it. COAL; DESULFURIZATION;MAGNETS;MAGNETISM;SULFUR; REMOVAL

01390 SURVEY OF SULFUR REDUCTION IN APPALACHIAN REGION COALS BY STAGE CRUSHING. Deurbrouck, A.W.; Palowitch, E.R. U. S. Bur. of Mines, Inform. Circ.; No. 8282, 37p.(1966). (In English).
Review of data on effect of crushing high-S coals for liberation of impurities; significant S reductions when coal is crushed to 14-mesh top size; 51 references. COAL;SULFUR;REMOVAL; REVIEWS

01391 REMOVAL OF HYDROGEN SULFIDE FROM COKE-OVEN GAS, GENERATOR GAS, OIL REFINING GAS, EXPANSION GAS, AND AIR. Drahorad, J.; Kucera, J. Czech Patent 117,273. 15 Jan 1966.
Solutions of Fe (III) complexes of aminocarboxylic acids absorb H sulfide which is oxidized to nonvolatile S compounds. HYDROGEN SULFIDES;REMOVAL;COAL GAS;DESULFURIZATION;GASES; AIR;IRON COMPLEXES;ABSORPTION;SULFUR;FILTRATION; OXIDATION;SULFUR COMPOUNDS

01392 REMOVAL OF HYDROGEN SULFIDE FROM COKE-OVEN GAS, GENERATOR GAS, PRESSURE GASWORK GAS, EXPANSION GAS, AND AIR. Drahorad, J.; Kucera, J. Czech Patent 117,274. 15 Jan 1966.
Fe (III) complex of tris (carboxymethyl) amine reacts with H sulfide; H sulfide converted to nonvolatile S compound. HYDROGEN SULFIDES;REMOVAL;COAL GAS;AIR;GASES; DESULFURIZATION;SULFUR COMPOUNDS;IRON COMPLEXES; EQUIPMENT;OXIDATION

01393 REMOVAL OF HYDROGEN SULFIDE FROM COKE-OVEN GAS AND GENERATOR GAS. Drahorad, J.; Kucera, J. Czech Patent 117,277. 15 Jan 1966.
Tris (carboxymethyl) amine and substituted aminocarboxylic acids give mixed Fe (III) complex showing high purification effect in wide pH range. HYDROGEN SULFIDES;REMOVAL;GASES; COAL GAS;DESULFURIZATION;IRON COMPLEXES;PH VALUE;OXYGEN;SCRUBBING;EXTRACTION COLUMNS

01394 BURNING OF AMMONIA IN COKE-OVEN GASES WITH SIMULTANEOUS BURNING OF THE HYDROGEN SULFIDE. Wunderlich, G.; Weber, H. German(FRG) Patent 1,212,052. 10 Mar 1966.
Conversion of ammonia to N and water and of hydrogen sulfide to S. AMMONIA;HYDROGEN SULFIDES;COMBUSTION;COAL GAS;REMOVAL; PURIFICATION;DESULFURIZATION;AIR

01395 REMOVING HYDROGEN SULFIDE FPOM GASES. Drahorad, J. Czech Patent 118,272. 15 Apr 1966.
Approximately 26% of H sulfide converted to S dioxide and rest to S. HYDROGEN SULFIDES; REMOVAL;FLUE GAS;DESULFURIZATION;OXIDATION; SULFUR;SULFUR DIOXIDE

01396 (PB--176844) FEASIBILITY STUDY OF THE RECOVERY OF SULFUR AND IRON FROM COAL PYRITES. May 1966. 44p. CFSTI $6.00.
COAL;DESULFURIZATION;REMOVAL;PYRITES; FLOTATION;IRON OXIDES;SULFUR;SULFURIC ACID; SEPARATION PROCESSES

01397 STUDIES ON THE REMOVAL OF SULFUR DIOXIDE FROM HOT FLUE GASES TO PREVENT AIR POLLUTION. Kiyoura, R. J. Air Pollut. Contr. Ass.; 16: No. 9, 488-9(Sep 1966).
By three-step formation of ammonium sulfate. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; OXIDATION;VANADIUM OXIDES;WATER VAPOR;SULFURIC ACID;AMMONIA;CHEMICAL REACTIONS

01398 DESULFURIZING AND COKING HIGH-SULFUR COAL. Loevenstein, H. (to Harvey Aluminium (Inc.)). US Patent 3,272,721. 13 Sep 1966.
Conversion of S to H sulfide, which is driven off. COAL;DESULFURIZATION;HIGH TEMPERATURE;SULFUR;REMOVAL

01399 REMOVAL OF AMMONIA, HYDROGEN SULFIDE, AND HYDROGEN CYANIDE FROM GASES. (to Harpener Bergbau). Netherlands Patent 6,600,928. 21 Sep 1966.
Gas scrubbed with aqueous Fe (II) sulfate, and then ammonia, H sulfate, and HCN removed completely of scrubbed gas with O or O-containing gas. AMMONIA;HYDROGEN SULFIDES; HYDROCYANIC ACID;REMOVAL;AQUEOUS SOLUTIONS;IRON SULFATES;OXYGEN;GASES;DESULFURIZATION; PURIFICATION

01400 CONVERTING COKE OVEN AMMONIA AND HYDROGEN SULFIDE. Wunderlich, G.; Weber, H. US Patent 3,292,345. 20 Dec 1966.
Scrubbing coke-oven gas with water to remove ammonia and H sulfide. COAL GAS;PURIFICATION; DESULFURIZATION;AMMONIA;HYDROGEN SULFIDES; REMOVAL;WATER;SCRUBBING;STEAM

01401 DESIGNING AN ALKALIZED ALUMINA PILOT PLANT FOR SULFUR OXIDES REMOVAL. Kurtzrock, R.C.; McCrea, D.H.; Cinquegrane, G.J. Amer. Inst. Min., Met., and Petrol. Engrs., Met. Soc., Prepr. Chicago, Il; Amer. Inst. Min., Met., and Petrol. Engrs., Met. Soc. (1967). 19p.
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From hot flue gases. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR OXIDES; ABSORPTION;ALUMINIUM OXIDES;REGENERATION;PILOT PLANTS

01402 SORPTION OF SULFUR DIOXIDE ON SILICA GEL. Jones, W.J.; Ross, R.A. J. Chem. Soc., A; 1967: 1021-6(1967).
FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR

DIOXIDE;ADSORPTION;SILICA GEL

01403 REMOVAL OF SO_2 AND DUST FROM STACK GASES. Plumley, A.L.; Jonakin, J.; Whiddon, O.D.; Shutko, F.W. Proc. Amer. Power Conf.; 29: 592-614(1967).
Fuel desulfurization, especially hydrodesulfurization, is not economically feasible so removal of S dioxide from stack gas has been studied in great detail. ECONOMICS; COAL;DESULFURIZATION;FLUE GAS;SULFUR DIOXIDE; REMOVAL;DOLOMITE;DUSTS

01404 CYCLIC USE OF CALCINED DOLOMITE TO DESULFURIZE FUELS UNDERGOING GASIFICATION. Squires, A.M. (City Coll., City Univ. of New York, Dept. Chem. Eng., New York, NY). pp 205-29 of Fuel gasification. Advances in chemistry series 69. Washington, DC; Amer. Chem. Soc. (1967).
From 152. Meeting of American Chemical Society; New York, NY (12 Sep-13 Sep 1966).
Use of CaO plus MgO or Ca carbonate plus MgO to desulfurize fluid fuels has been hampered by lack of means to recover elemental S from CaS plus MgO while also recovering original solid in form suitable for reuse in desulfurization step. FOSSIL FUELS;LIQUIDS;DESULFURIZATION; CALCIUM OXIDES;MAGNESIUM OXIDES;CALCIUM CARBONATES;STEAM;CHEMICAL REACTIONS;CALCIUM SULFIDES;HYDROGEN SULFIDES;PRODUCTION

01405 OPERATION OF THE FRODINGHAM DESULFURIZING PLANT AT EXETER. Bureau, A.C.; Olden, M.J.F. (Henry Balfour Co. Ltd., London). Chem. Eng. (London); 206: CE55-CE62(1967). (In English).
Removal of 99% of H sulfide and 90% of other organic compounds common to coal gas; sulfuric acid produced. DESULFURIZATION;HYDROGEN SULFIDES;REMOVAL;COAL GAS;SULFURIC ACID; PRODUCTION;ECONOMICS

01406 PURIFICATION OF COKE-OVEN GAS FOR HIGH-PRESSURE UNDERGROUND STORAGE. Szynkiewicz, T. (Centralne Lab., Gazownictwa, Warsaw). Gaz, Woda Tech. Sanit.; 41: No. 5, 152-3(1967). (In Polish).
Aromatic hydrocarbons and butadiene removed by activated carbon following removal of H sulfide, HCN, and NO by suitable absorbers. COAL GAS;DESULFURIZATION;HYDROGEN SULFIDES; REMOVAL;HYDROCYANIC ACID;PURIFICATION;NITROGEN OXIDES;PRESSURE DEPENDENCE;BUTADIENE;AROMATICS; ACTIVATED CARBON;ADSORPTION;ABSORPTION

01407 CZECHOSLOVAKIAN PROPOSAL OF AMMONIACAL FLUE GAS DESULFURIZING FOR A 100 MW POWER PLANT. Klimecek, R. Ann. Genie Chim.; 1967: 175-9(1967).
From Congr. Intern. du Soufre; Toulouse (1967).
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01408 ORGANIC SULFUR AND ITS ELIMINATION. Bolzinger, A. (Gaz Fr., Fr.). Gaz Aujourd'hui; 91: No. 9, 415-18(1967). (In French).
Organic S compounds eliminated by physical absorption by solvents, chemical reaction with solutions, adsorption by solids, catalytic hydrogenation or oxidation, or reaction with solid metallic oxide; review of principal methods. ORGANIC SULFUR COMPOUNDS;REMOVAL;COAL GAS;NATURAL GAS;DESULFURIZATION;THIOPHENE; CARBON SULFIDES;CARBON OXIDES;THIOLS;SULFIDES; ABSORPTION;ORGANIC SOLVENTS;CHEMICAL REACTIONS; ADSORPTION;HYDROGENATION;OXIDATION;REVIEWS

01409 COKE DESULFURIZING. Bradeteanu, C. (Prospections Lab. Enterprise, Min. Mines, Bucharest, Romania). Metallurgia; 19: No. 4, 193-5(1967). (In Romania).
Laboratory study using H. COKE; DESULFURIZATION;HYDROGEN;CHEMICAL REACTION KINETICS

01410 CONVERSION OF COKE OVEN GAS TO A GAS INTERCHANGEABLE WITH NATURAL GAS. Pichler, H. Gas- Wasserfach; 108: No. 21, 585-8(1967). (In German).
Conversion of coke-oven--water gas mixture to gas equivalent to natural gas requires 2 steps. COAL GAS;NATURAL GAS;WATER GAS;CATALYSTS; COBALT;MOLYBDENUM;COMBUSTION HEAT;REMOVAL; DESULFURIZATION;HYDROGEN SULFIDES;PRODUCTION

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Methods for reducing SO_2 emissions. COAL; FLUE GAS;DESULFURIZATION;REMOVAL;PYRITES;SULFUR DIOXIDE;FLOTATION;OXIDATION;REINLUFT PROCESS; ALUMINIUM OXIDES;COST

01412 REMOVAL OF SULFUR-CONTAINING ORGANIC COMPOUNDS FROM COKE OVEN GAS. Dalluege, G. German(GDR) Patent 54,451. 5 Mar 1967.
Coke-oven gas washed with higher-boiling fraction of crude benzene. COAL GAS; DESULFURIZATION;ORGANIC SULFUR COMPOUNDS; REMOVAL;WASHING;BENZENE

01413 WASHING OUT HYDROGEN SULFIDE FROM COKE-OVEN GAS. Becker-Boost, E.H.; Morlock, G. (to Dr. C. Otto and Co. GmbH). German(FRG) Patent 1,243,323. 29 Jun 1967.
H sulfide washed from coke-oven gas with Na carbonate-containing solution of Na arsenate. COAL GAS;WASHING;DESULFURIZATION;HYDROGEN SULFIDES;REMOVAL;SODIUM CARBONATES;SODIUM COMPOUNDS;ARSENATES

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Coal or coke treated, prior to heat treatment, with 0.5-20% inorganic or hydroxy acid, and (or) mono- or dibasic organic acids containing not more than 6 C atoms. COKE; DESULFURIZATION;COAL;INORGANIC ACIDS;HYDROXY ACIDS;MONOCARBOXYLIC ACIDS;DICARBOXYLIC ACIDS

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By adsorption on carbon impregnated with iodides and/or iodates. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; ADSORPTION;CARBON;IODIDES;IODATES;REGENERATION

01416 DISPERSED-PHASE ADDITIVE TESTS FOR SO_2 CONTROL. PROGRESS REPORT ON PILOT PLANT INVESTIGATION TO EVALUATE THE POTENTIAL OF DIRECT LIMESTONE-DOLOMITE ADDITIVE FOR CONTROL OF SULFUR DIOXIDE FROM COMBUSTION FLUE GAS. Attig, R.C. PH--86-67-127. Alliance, OH; Babcock and Wilcox Co., Res. Cent., Pub. Health Ser. (30 Nov 1967). 23p. (LR--67-4078-01-5).
Determination of reactivity of limestone and dolomite with S dioxide; dolomite more effective than limestone in general. SULFUR DIOXIDE;REMOVAL;PILOT PLANTS;DOLOMITE;LIMESTONE; FLUE GAS;DESULFURIZATION;COMPARATIVE EVALUATIONS

01417 AIR POLLUTION AND THE COAL INDUSTRY. Perry, H.; Field, J.H. Trans. AIME; 238: 337-

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Desulfurization of fuels and flue gases. AIR POLLUTION;DESULFURIZATION;COAL;FLUE GAS;REMOVAL; SULFUR;SULFUR DIOXIDE;CHEMISORPTION;HYDROXIDES; ADDITIVES;OXIDATION;CATALYSTS;ALUMINIUM OXIDES; SCRUBBING;NITROGEN OXIDES;CARBON DIOXIDE;SMOKES; FLY ASH

01418 DESULFURIZATION OF COALS BY USE OF CONCENTRATION TABLES. Blagov, I.S.; Vinogradov, N.N.; Volchenko, V.A.; Ivanov, G.P.; Ivanchenko, O.Y. Koks i Khim.; 3: 7-11(1968). (In Russian).
COAL;DESULFURIZATION;TABLES;FLOTATION

01419 REMOVING SULFUR DIOXIDE FROM FUEL GASES AT THERMAL GENERATING PLANTS FOR ELECTRIC POWER. III. EFFECT OF THE NATURE AND PRELIMINARY TREATMENT OF A REAGENT ON THE DEGREE OF PURIFICATION. Ketov, A.N.; Larikov, V.V.; Shligerskii, A.S. (USSR). Zh. Prikl. Khim.; 41: No. 5, 1126-8(1968). (In Russian).
Removal of S dioxide using lime; to obtain high degree of purification, ground chalk or lime should be used. SULFUR DIOXIDE;REMOVAL; FUEL GAS;DESULFURIZATION;THERMAL POWER PLANTS; ELECTRIC POWER;PRODUCTION;USSR;CALCIUM OXIDES; CALCIUM CARBONATES

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Review of previous studies of magnetic separation of pyrites from coal. COAL;PYRITES; REMOVAL;MAGNETIC PROPERTIES;DESULFURIZATION

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Economics of desulfurization of coal to recover FeS_2 for sulfuric acid production. COAL; PYRITES;DESULFURIZATION;ECONOMICS;IRON SULFIDES; SULFURIC ACID;PRODUCTION;RECOVERY;REMOVAL

01423 PROBLEMS IN LOWERING THE SULFUR CONTENT OF COKE DURING ITS PRODUCTION. Aronov, S.G. (USSR). Koks i Khim.; 8: 7-13(1968). (In Russian).
Review; 38 references. COKE;DESULFURIZATION; SULFUR;REMOVAL;REVIEWS;IRON SULFIDES;CALCIUM SULFIDES

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Dry and wet processes of S recovery from coke-oven gas with schematic flow diagrams. COAL GAS;SULFUR;RECOVERY;FLOWSHEETS; DESULFURIZATION

01425 FACILITY OF SCRUBBING HYDROGEN SULFIDE FROM COAL GAS IN THE GAS WORKS AT CESKE BUDEJOVICE. Snabl, J. Sb. Pr. UVP (Ustav Vyzk. Vyuziti Paliv); 19: 142-89(1968). (In Czech).
Tower scrubber filled with Raschig rings. SCRUBBING;HYDROGEN SULFIDES;REMOVAL;COAL GAS; DESULFURIZATION;CZECHOSLOVAKIA;EQUIPMENT

01426 FLUE GAS DESULFURIZATION EXPERIMENTS. Goldschmidt, K. Chem.-Ing.-Tech.; 40: No. 21-2, 1082-6(1968). (In German).
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Calcium oxide injection into boiler. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; INJECTION;CALCIUM OXIDES;DOLOMITE;CALCIUM HYDROXIDES;COMPARATIVE EVALUATIONS

01427 DRY LIME METHOD OF REMOVING SULFUR DIOXIDE FROM POWER STATION FLUE GASES. Ketov, A.N.; Larikov, V.V.; Pechkovskiy, V.V.; Shligerskiy, A.S. Zh. Prikl. Khim.; 41: No. 4, 724-9(1968). (In Russian).
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SULFUR;REMOVAL;COAL;DESULFURIZATION; ELECTROCHEMISTRY;REDUCTION

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Separation by mechanal means. SULFUR;COAL; DESULFURIZATION;REMOVAL;EQUIPMENT;ORGANIC SULFUR COMPOUNDS;PYRITES

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Batch hydrogenolysis of S, O, and N compounds in presence of W sulfide catalyst indicates that the hetero-atoms can be completely removed at 500° and 1500 psi; 13 references. CHEMICAL REACTION KINETICS;REMOVAL; SULFUR;OXYGEN;NITROGEN;COAL TAR;DESULFURIZATION; PURIFICATION;CATALYSTS;TUNGSTEN SULFIDES; HYDROGEN;CHEMICAL REACTIONS;SULFUR COMPOUNDS; OXYGEN COMPOUNDS;NITROGEN COMPOUNDS

01432 REMOVAL OF SO_2 FROM FLUE GASES. Kawazoe, K. Seisan Kenkyu; 20: No. 2, 17-21(Feb 1968). (In Japanese).
Discussion of various wet and dry methods. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; CHEMISORPTION;AMMONIA;AQUEOUS SOLUTIONS;CALCIUM HYDROXIDES;REINLUFT PROCESS;ADSORPTION; ACTIVATED CARBON;MANGANESE OXIDES;CHEMICAL REACTIONS

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01434 (PB--180769) SULFUR OXIDES POLLUTION

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Coal desulfurization and removal of sulfur oxides from flue gas. COAL GAS;DESULFURIZATION; FLUE GAS;REMOVAL;SULFUR OXIDES;AIR POLLUTION; RESEARCH PROGRAMS

01435 METHOD OF AND APPARATUS FOR DESULFURIZING INDUSTRIAL WASTE GASES. Tamura, Z.; Hishinuma, Y. (to Hitachi, Ltd., Tokyo (Japan)). US Patent 3,398,509. 27 Aug 1968. Filed date 15 Aug 1967. 4p.
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Methods tested include injection of pulverized lime; adsorption by circulating coke, and desulfurization in a fluidized bed with calcium hydrate or hydrated brown coal ash. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;INJECTION;CALCIUM OXIDES;ADSORPTION; COKE;FLUIDIZED BED;CALCIUM COMPOUNDS;HYDRATES

01437 SORPTION OF SULFUR DIOXIDE BY SYNTHETIC RESINS. Pinaev, V.A.; Muromtseva, L.S. J. Appl. Chem. USSR (Engl. Transl.); 41: No. 9, 1974-8(Sep 1968).
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01438 REMOVAL OF ORGANICALLY BOUND SULFUR FROM CRUDE COKE OVEN GAS. Dalluege, G. (to VEB PKM Kohleverarbeitung). German(FRG) Patent 1,283,808. 28 Nov 1968.
Light oil obtained during coking used to remove S by washing. COAL GAS;DESULFURIZATION; ORGANIC SULFUR COMPOUNDS;REMOVAL;WASHING;CARBON SULFIDES;THIOPHENE;CARBON OXIDES

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Dry method using dolomite or calcium injection for removal of SO_2 from flue gas. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; INJECTION;DOLOMITE;CALCIUM;COKE

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Above 350° total S in ethanethiol is converted to FeS in solid phase and gas is freed from S. ORGANIC SULFUR COMPOUNDS;TOWN GAS; IRON OXIDES;CHEMICAL REACTION KINETICS;THIOLS; SULFIDES;SULFUR DIOXIDE;CARBON SULFIDES;CARBON OXIDES;DESULFURIZATION;REMOVAL

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01447 COED [CHAR-OIL-ENERGY-DEVELOPMENT] CHAR DESULFURIZATION. Sacks, M.E.; Gray, C.A.; Eddinger, R.T. (Chem. Res. Dev. Cent., FMC Corp., Princeton, NJ). Am. Chem. Soc., Div. Fuel Chem., Prepr.; 13: No. 4, 287-99(1969).
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01505 TECHNOLOGICAL IMPROVEMENT OF THE PROCESS FOR REMOVAL OF HYDROGEN SULFIDE FROM COKE OVEN GAS. Rott, M.V.; Sevost'yanov, V.N.; Shukh, Y.I. (Rutchenkovsk. Koksokhim. Zavod., USSR). Koks i Khim.; 3: 33-8(1970). (In Russian).
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01507 CATALYTIC PROCESS FOR THE REMOVAL OF ORGANIC SULFUR COMPOUNDS FROM A GAS STREAM. Mehta, N.C.; Prasada Rao, T.S.R.; Singh, S.K.; Bhattacharyya, N.; Sen, S.P. (Planh. Dev. Div., Fert. Corp. India Ltd., Sindri, India). Technology; 7: No. 4, 239-45(1970). (In English).
Two catalysts used in series: Fe oxide + 15-20% alkalies Na_2CO_3 followed by ZnO + 10% Fe_2O_3; 1st causes hydrogenation of S compounds, and 2nd absorbs resulting H_2S. CATALYSTS;ORGANIC SULFUR COMPOUNDS;REMOVAL;WATER;DESULFURIZATION; THIOLS;CARBON SULFIDES;CARBON OXIDES;THIOPHENE; HYDROGEN SULFIDES;ABSORPTION

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01509 POLLUTION FROM POWER PRODUCTION. PREPRINT. Hangebrauck, R.P.; Spaite, P.W. Washington, DC; National Limestone Inst., Inc. (Jan 1970). 21p.
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01510 METHOD FOR REMOVING SULFUR DIOXIDE FROM THE FLUE GAS OF A COMBUSTION CHAMBER. Oda, K.; Ishihara, Y. (to Electric Power Industry, Tokyo (Japan), Central Lab.). Japanese Patent 45-1168. 16 Jan 1970. Filed date 13 Apr 1966. 3p. (In Japanese).
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01511 APPARATUS FOR THE CONTINUOUS RECOVERY OF SULFUR OXIDES IN FLUE GAS. Maeda, I.; Ito, N. (to Sumitomo Machine Industries, Osaka (Japan)). Japanese Patent 45-2644. 29 Jan 1970. Filed date 28 Apr 1967. 2p. (In Japanese).
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01512 (BCR-L--362) EVALUATION OF COAL CLEANING PROCESSES AND TECHNIQUES FOR REMOVING PYRITIC SULFUR FROM FINE COAL. Feb 1970. Contract PH--86-67-139. 140p. (PB--193484). CFSTI $3.00.
COAL;DESULFURIZATION;REMOVAL;PYRITES;ORGANIC SULFUR COMPOUNDS;FLOTATION

01513 (TT--7050047/2) STAUB: REINHALTUNG DER LUFT IN ENGLISH. VOLUME 30, NUMBER 2, 1970. Feb 1970. 71p. NTIS $3.00.
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01514 APPARATUS FOR REMOVING SULFUR DIOXIDE FROM FLUE GAS BY OXIDIZING WITH OZONE. Yamagami, Y. Japanese Patent 45-3521. 3 Feb 1970. Filed date 16 May 1966. 1p. (In Japanese).
SO_2 is oxidized with ozone to SO_3 then washed with water to form H_2SO_4 which is naturalized with calcium carbonate and collected as a by-product. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; OXIDATION;OZONE;SULFUR OXIDES;WASHING;WATER; SULFURIC ACID;CALCIUM CARBONATES

01515 (PB--190471, pp 58) BIBLIOGRAPHY OF SULFUR DIOXIDE REMOVAL AND RECOVERY FROM WASTE

GASES AND SULFURIC ACID PLANT TAIL GASES, EXCLUDING THE LIMESTONE AND DOLOMITE INJECTION PROCESSES, 1953-1968, WITH ABSTRACTS. (PART II). Mar 1970.
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CATALYSTS;MANGANESE COMPOUNDS;FERRITES;CHEMICAL PREPARATION

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From 2. Int. Lime/Limestone Wet Scrubbing Symposium; New Orleans, LA (8 Nov-12 Nov 1971).
Test of alkali absorption process for removal of S dioxide on pilot plant basis; use of limestone, lime, and soda ash as absorbers. PILOT PLANTS;SULFUR DIOXIDE;REMOVAL;SCRUBBING; LIMESTONE;CALCIUM OXIDES;SODIUM CARBONATES

01557 REMOVAL OF SULFUR DIOXIDE FROM STACK GASES BY SCRUBBING WITH LIMESTONE SLURRY: OPERATIONAL ASPECTS OF THE SCALING PROBLEM. Slack, A.V.; Hatfield, J.D. pp 947-63 of Proc. Int. Lime/Limestone Wet Scrubbing Symp., 2nd, Vol. II. Research Triangle Park, NC; Off. of Air Programs, Div. Control Systems (1971).
From 2. Int. Lime/Limestone Wet Scrubbing Symposium; New Orleans, LA (8 Nov-12 Nov 1971).
SULFUR DIOXIDE;REMOVAL;FLUE GAS; DESULFURIZATION;SCRUBBING;SLURRIES;LIMESTONE

01558 REMOVAL OF SULFUR DIOXIDE FROM STACK GASES BY SCRUBBING WITH LIMESTONE SLURRY: DESIGN CONSIDERATIONS FOR DEMONSTRATION FULL-SCALE SYSTEM AT TVA. McKinney, B.G.; Little, A.F. pp 673-91 of Proc. Int. Lime/Limestone Wet Scrubbing Symp., 2nd, Vol. II. Research Triangle Park, NC; Off. of Air Programs, Div.

Control Systems (1971).
From 2. Int. Lime/Limestone Wet Scrubbing Symposium; New Orleans, LA (8 Nov-12 Nov 1971).
Major design factors included limestone handling and grinding; scrubber design with respect to gas velocity, entrainment separation, liquor flow rate, limestone amount, and particle size; particulate removal; equipment arrangement; flue gas handling and conditioning; instrumentation and control; construction materials; and solid waste disposal methods. SULFUR DIOXIDE;REMOVAL;FLUE GAS;DESULFURIZATION;LIMESTONE;SLURRIES; SCRUBBING

01559 IRON OXIDE/WATER-TYPE MASSES IN THE DRY DESULFURIZATION OF GASES. Kroll, Z. (Inst. Chem., Uniw. M. Kopernika Toruniu, Torun, Pol.). Przem. Chem.; 50: No. 11, 711-15(1971). (In Polish).
IRON OXIDES;DESULFURIZATION;HYDROGEN SULFIDES;GASES;REMOVAL

01560 LOWERING THE SULFUR CONTENT OF COKE BY HEATING TO HIGH TEMPERATURES. Kazmina, V.V. (Ukr. Nauchno-Issled. Uglekhim. Inst., Kharkov, USSR). Koks Khim.; 6: 25-8(1971).
46% of sulfide S removed at 1100° and 50-70% at 1500°; organic S eliminated in amounts of 1.6% at 1100° a 20% at 1600°. COKE;HEATING; SULFUR;DESULFURIZATION;REMOVAL;EQUIPMENT; ORGANIC SULFUR COMPOUNDS;SULFIDES

01561 REMOVAL OF ORGANIC SULFUR FROM COKE OVEN GAS. I. PURPOSE OF THE EXPERIMENTS. PROCEDURE. Sommers, H.; Last, W. (Ruhr-gas, Essen, Ger.). Erdoel Kohle, Erdgas, Petrochem.; 24: No. 7, 473-7(1971).
Organic S compounds converted to H sulfide that is then absorbed. REMOVAL;ORGANIC SULFUR COMPOUNDS;COAL GAS;DESULFURIZATION;HYDROGEN SULFIDES;CHEMISORPTION

01562 REMOVAL OF ORGANIC SULFUR FROM COKE OVEN GAS. II. TEST RESULTS WITH SINGLE-STEP PROCESSES. Sommers, H.; Last, W. (Ruhrgas, Essen, Ger.). Erdoel Kohle, Erdgas, Petrochem.; 24: No. 8, 525-9(1971).
Use of Ca carbonate, Ba carbonate, ZnO, or Fe oxide as absorbent. COAL GAS;DESULFURIZATION; ORGANIC SULFUR COMPOUNDS;REMOVAL;CALCIUM CARBONATES;BARIUM CARBONATES;ZINC OXIDES;IRON OXIDES;CHEMISORPTION

01563 REMOVAL OF HYDROGEN SULFIDE FROM COKE-OVEN GAS BY THE CARBONATE PROCESS. Lesniak, E.; Gorczyca, S. (Zk. "Zdzieszowice," Pol.). Koks, Smola, Gaz; 16: No. 7-8, 203-6(1971).
HYDROGEN SULFIDES;REMOVAL;COAL GAS; DESULFURIZATION

01564 SULFUR REDUCTION OF ILLINOIS COALS. WASHABILITY STUDIES. 1. Helfinstine, R.J.; Shimp, N.F.; Simon, J.A.; Hopkins, M.E. (Illinois State Geol. Surv., Urbana, IL). Ill., State Geol. Surv., Circ.; No. 462, 25p.(1971).
SULFUR;REMOVAL;COAL;DESULFURIZATION;ILLINOIS; WASHING

01565 SULFUR LOSSES IN SULFUR-REMOVING APPARATUS. Ievlev, V.V.; Litvinenko, V.I.; Lazorin, S.N. (USSR). Koks Khim.; 10: 47-9(1971).
S balances for vacuum—carbonate and As—soda methods. SULFUR;REMOVAL;COAL GAS; DESULFURIZATION;USSR

01566 REMOVAL OF ORGANIC SULFUR FROM COKE OVEN GAS. III. TEST RESULTS WITH TWO-STEP PROCESSES. Sommers, H.; Last, W. (Ruhrgas, Essen, Ger.). Erdoel Kohle, Erdgas, Petrochem.; 24: No. 9, 578-86(1971).
S compounds hydrogenated over Pt/Al oxide and H sulfide absorbed by Zn- or Fe-based material. REMOVAL;ORGANIC SULFUR COMPOUNDS;COAL GAS;DESULFURIZATION;HYDROGENATION;CATALYSTS

01567 DESULFURIZATION OF FUELS WITH CALCINED DOLOMITE. 1. INTRODUCTION AND FIRST KINETIC RESULTS. Squires, A.M.; Graff, R.A.; Pell, M. (City Coll., City Univ. New York, New York, NY). Chem. Eng. Progr., Symp. Ser.; 67: No. 1115, 23-34(1971).
DESULFURIZATION;MAGNESIUM OXIDES;HYDROGEN SULFIDES;CHEMICAL REACTIONS;REMOVAL;COAL

01568 NEW PROCESSES. 5. DESULFURIZATION OF COAL GAS. CLAUS-TYPE DESULFURIZATION. Harima, M. (Mitsubishi Chem. Plant. Ind., Ltd., Tokyo, Japan). Aromatikkusu; 23: No. 4, 163-75(1971).
Japanese petroleum refinery plant. COAL GAS; DESULFURIZATION;CLAUS PROCESS;HYDROGEN SULFIDES; REMOVAL;SULFUR;RECOVERY

01569 REMOVAL OF ORGANIC SULFUR FROM COAL GAS. Bhatia, S.P. (Pulp Pap. Res. Inst. Can., Pointe Claire, Que.). Can. J. Chem. Eng.; 49: No. 5, 605-10(1971). (In English).
Coal gas containing 15-20% CO; S compounds onverted to H_2S over Nimox (Ni—Mo) cnversion catalyst; H_2S removed by Luxmasse (a prepared Fe oxide). COAL GAS;DESULFURIZATION;ORGANIC SULFUR COMPOUNDS;REMOVAL;CATALYSTS;HYDROGEN SULFIDES;LUXMASSE;IRON OXIDES;THIOPHENE

01570 DESULFURIZE COAL. Messman, H.C. (Mamaroneck, NY). Chem. Technol.; Feb.: 114-16(1971).
Treatment of coal with caustic soda solution decreased S content from 4 to 1%. COAL; DESULFURIZATION;SODIUM HYDROXIDES;SULFUR; REMOVAL

01571 SULFUR BEHAVIOR AND SEQUESTERING OF SULFUR COMPOUNDS DURING COAL CARBONIZATION, GASIFICATION, AND COMBUSTION. Vestal, M.L.; Day, A.G., III; Snyderman, J.S.; Fergusson, G.J.; Lampe, F.W. (Sci. Res. Instrum. Corp., Baltimore, MD). U. S. Nat. Tech. Inform. Serv., PB Rep.; No. 211481, 136p.(1971).
Theoretical, experimental, and practical problems associated with desulfurization of coal. COAL;CARBONIZATION;SULFUR;SULFUR COMPOUNDS;COAL GASIFICATION;COMBUSTION; DESULFURIZATION;HYDROGEN SULFIDES;REMOVAL;IRON; IRON SULFIDES;CHEMICAL REACTIONS;CHARS

01572 REMOVAL OF ORGANIC SULFUR FROM COKE OVEN GAS. I. PURPOSE OF THE EXPERIMENTS, PROCEDURE. Sommers, H.; Last, W. (Ruhrgas, Essen, Ger.). Gesammelte Ber. Betr. Forsch. Ruhrgas AG; No. 19, 63-7(1971). (In German).
One-stage process involves converting S compounds catalytically and binding converted S for removal; 2-stage process converts S compounds, by hydrogenation to H_2S to first stage and absorbs H_2S for removal in second stage. ORGANIC SULFUR COMPOUNDS;REMOVAL;COAL GAS;DESULFURIZATION;CHEMICAL REACTIONS;HYDROGEN SULFIDES;HYDROGENATION

01573 SULFUR REDUCTION THROUGH IMPROVED COAL WASHING PRACTICES. Terchik, A.A. (Appl. Res. Lab., U. S. Steel Corp., Monroeville, PA). Mining Congr. J.; 57: No. 7, 48-55(1971). (In English).
S content reduced by crushing coal, washing in hydraulic classifier table circuit, and using hydroclone/heavy-medium unit combination. SULFUR;REMOVAL;WASHING;COAL;DESULFURIZATION

01574 REMOVAL OF ORGANIC SULFUR FROM COKE OVEN GAS. II. TEST RESULTS WITH SINGLE STEP PROCESSES. Sommers, H.; Last, W. (Ruhrgas, Essen, Ger.). Gesammelte Ber. Betr. Forsch.

Ruhrgas AG; No. 19, 68-72(1971). (In German).
Results of experiments with 1-stage process; CaO, Zn, and Fe tried as catalysts and final binding materials. ORGANIC SULFUR COMPOUNDS; COAL GAS;REMOVAL;DESULFURIZATION;CATALYSTS; CALCIUM OXIDES;ZINC;IRON;BINDERS

01575 REMOVAL OF ORGANIC SULFUR FROM COKE OVEN GAS. III. TEST RESULTS WITH TWO STEP PROCESSES. Sommers, H.; Last, W. (Ruhrgas, Essen, Ger.). Gesammelte Ber. Betr. Forsch. Ruhrgas AG; No. 19, 73-81(1971). (In German).
Experiments with different hydrogenation catalysts (Pt--Al_2O_3, Co--Mo, Ni--Mo, Ni). ORGANIC SULFUR COMPOUNDS;REMOVAL;COAL GAS; DESULFURIZATION;HYDROGEN SULFIDES;ABSORPTION; CATALYSTS;PLATINUM;ALUMINIUM OXIDES;COBALT; MOLYBDENUM;NICKEL

01576 RECOVERY OF FREE SULFUR BY REMOVAL OF HYDROGEN SULFIDE AND SULFUR DIOXIDE IN THE OUTFLOW OF A CONDENSER OF A CATALYTIC REACTION ZONE. Hunt, E.B., Jr.; Hujsak, K.L. (to Amoco Production Co., Tulsa, OK). German(FRG) Patent 2,105,844. 25 Jan 1971. 16p. (In German).
Desulfurization of flue gas and recovery of free sulfur on catalyst bed. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;HYDROGEN SULFIDES;CATALYSTS;REGENERATION;SULFUR

01577 (PB--210354) CONCEPTUALIZED FLY-ASH AND SULFUR DIOXIDE SCRUBBING SYSTEM WITH BY-PRODUCT RECOVERY. Carlson, G.E.; James, D.E. 29 Jan 1971. Contract CPA 22-69-129. 13p. (APTD--0967). NTIS.
Fly ash removal using a venturi scrubber; SO_2 removal by absorption by a slurry of magnsium oxide and magnesium sulfite. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; ABSORPTION;SLURRIES;MAGNESIUM OXIDES;MAGNESIUM COMPOUNDS;SULFITES;PURIFICATION;FLY ASH; SCRUBBING;VENTURI SCRUBBERS

01578 (COM--7150235) AIR POLLUTION BY SULFUR OXIDES. Feb 1971. 27p. GPO $0.20; NTIS.
Removal of sulfur oxides from flue gases. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR OXIDES; AIR POLLUTION

01579 (PB--203958) HIGH SULFUR COMBUSTOR. STUDY OF SYSTEMS FOR COAL REFUSE PROCESSING. VOLUME 1. NARRATIVE SUMMARY. Feb 1971. CPA--22-69-151. 237p. NTIS $3.00.
Extraction of energy and sulfur products from coal washing reject fractions. COAL; DESULFURIZATION;REMOVAL;PYRITES;WASHING;GASEOUS WASTES;BITUMINOUS COAL

01580 (PB--198822) REGENERATIVE LIMESTONE PROCESS FOR FLUIDIZED BED COAL COMBUSTION AND DESULFURIZATION. Hammons, G.A.; Skopp, A. 28 Feb 1971. Contract EPA-CPA--70-19. 122p. NTIS $3.00.
Removal of SO_2 from flue gas using limestone adsorbent. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR DIOXIDE;ADSORPTION;LIMESTONE

01581 TECHNICAL VIEW OF ENVIRONMENTAL CONTROL SYSTEM. Hiraoka, M. Hitachi Hyoron; 55: No. 3, 65-71(Mar 1971). (In Japanese).
Discussion of chemical absorption and catalytic oxidation methods for removal of SO_2 from flue gas. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR DIOXIDE;ABSORPTION;CATALYSTS;OXIDATION; POTASSIUM COMPOUNDS;SULFITES;MAGNESIUM HYDROXIDES;MANGANESE OXIDES;MANGANESE COMPLEXES; REGENERATION;SULFURIC ACID;GYPSUM

01582 CLEANING STACK GASES. Kershaw, J.B.C. Elec. World; 97: 542-6(21 Mar 1971).
Removal of grit and dust as well as sulfur acids. FLUE GAS;DESULFURIZATION;SULFUR OXIDES; DUSTS;PARTICLES;REMOVAL;AIR POLLUTION;CATALYSIS; OXIDATION;SULFUR DIOXIDE;ECONOMICS

01583 (BCR-L--404) EVALUATION OF COAL CLEANING PROCESSES AND TECHNIQUES FOR REMOVING PYRITIC SULFUR FROM FINE COAL. Apr 1971. Contract CPA--70-26. 200p. (PB--199484). NTIS $3.00.
COAL;DESULFURIZATION;REMOVAL;PYRITES;WASHING

01584 PHYSICAL DESULFURIZATION OF COAL - MAJOR CONSIDERATIONS FOR SO/SUB X/ EMISSION CONTROL. CONFERENCE PAPER. Yeager, K.E.; Hoffman, L. Massachusetts; Mitre Corp. (Apr 1971). 24p. (EN--67).
From American Power Conference; Chicago, IL (Apr 1971).
Economic analysis. BITUMINOUS COAL;COAL; DESULFURIZATION;REMOVAL;SULFUR;ECONOMICS;USA

01585 (PB--198861-D) PROPOSED PILOT PLANT, FORT LEWIS, WASHINGTON. 30 Apr 1971. 19p. NTIS $3.00.
For desulfurization of coal by solvent refining. COAL;DESULFURIZATION;SOLVENT-REFINED COAL;PILOT PLANTS;ENVIRONMENTAL EFFECTS; WASHINGTON

01586 (BM-RI--7518) HYDROLYZED METAL IONS AS PYRITE DEPRESSANTS IN COAL FLOTATION: LABORATORY STUDY. Baker, A.F.; Miller, K.J. May 1971. 26p. (PB--200700). NTIS $3.00.
Use of $FeCl_3$, $AlCl_3$, $CrCl_3$, and $CuSO_4$ as pyrite depressants. COAL;DESULFURIZATION; REMOVAL;PYRITES;FLOTATION;ALUMINIUM CHLORIDES; CHROMIUM CHLORIDES;IRON CHLORIDES;COPPER SULFATES;ADSORPTION;PH VALUE

01587 (PB--204 863) CHEMICAL REMOVAL OF NITROGEN AND ORGANIC SULFUR FROM COAL. FINAL REPORT. Meyers, R.A.; Land, J.S.; Flegal, C.A. (TRW Systems Group, Redondo Beach, CA). 14 May 1971. EPA-EHSD--71-7. 62p.p. (APTD--845). NTIS $3.00, $0.95 (MF).
By solvent extraction using weak organic acids, nitrobenzene, and strong inorganic acids. COAL;DESULFURIZATION;DENITRATION;REMOVAL; ORGANIC SULFUR COMPOUNDS;ORGANIC NITROGEN COMPOUNDS;SOLVENT EXTRACTION;ORGANIC ACIDS; NITROBENZENE;INORGANIC ACIDS

01588 PHYSIOCOCHEMICAL PURIFICATION OF SMOKE AND GASES CONTAINING SULFUR DERIVATIVES. Poncet, P.; Trempu, R. (to Compagnie Industrielle des Telecommunications Cit-Alcatel, Paris, France). German(FRG) Patent 2,125,036. 19 May 1971. 15p. (In German).
Removal of SO_2 by scrubbing with dilute ferric sulfate. FLUE GAS;DESULFURIZATION; REMOVAL;SULFUR DIOXIDE;SCRUBBING;IRON SULFATES; SOLUTIONS;REGENERATION

01589 CONTROLLING SULFUR OXIDE EMISSIONS. Ducsik, D.W.; Donovan, L.; Milligan, S. pp 187-241 of Power, Pollution, and Public Policy. Cambridge, MS; Massachusetts Inst. Technol., Sea Grant Project Office, National Oceanic Atmospheric Administration (Jun 1971).
Discussion of various technologies. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;FOSSIL FUELS

01590 DESULFURIZATION OF GENERATOR GAS AND CATALYTIC HYDROGEN PRODUCTION. Stotler, H.H.; Calderon, M. (to Hydrocarbon Research Inc.). German(FRG) Patent 2,026,389. 16 Jun 1971. 17p.
Desulfurization by bringing gas into contact with fine-grained Fe oxide. DESULFURIZATION; CATALYSIS;IRON OXIDES;FUEL GAS;HYDROGEN SULFIDES;CHEMICAL REACTIONS;REMOVAL

01591 (PB--203889) LOW-SULFUR FUEL OIL FROM COAL. Akhtar, S.; Friedman, S.; Yavorsky,

F.M. Jul 1971. 13p. NTIS $3.00.
Hydrodesulfurization of coal on cobalt molybdate on alumina catalyst. BITUMINOUS COAL; COAL;DESULFURIZATION;CATALYSTS;COBALT COMPOUNDS; MOLYBDENUM OXIDES;ALUMINIUM OXIDES;REMOVAL; ORGANIC SULFUR COMPOUNDS

01592 SOLVENT MIXTURES FOR SELECTIVELY ABSORBING SULFUR DIOXIDE AND HYDROGEN SULFIDE FROM GASEOUS MIXTURES. Blake, R.J. (to Union Carbide Corp., New York). German(FRG) Patent 2,134,379. 6 Jul 1971. 23p. (In German).
Using a mixture of water, hydroxy or alkoxy amines, and glycol. FLUE GAS;DESULFURIZATION; REMOVAL;SULFUR DIOXIDE;HYDROGEN SULFIDES; ABSORPTION;MIXTURES;WATER;AMINES;GLYCOLS

01593 AIR POLLUTION BY SULPHUR DIOXIDE. Murthy, M.S.; Lokras, S.S. Chem. Process Eng.; 1971: 43-5(Aug 1971).
Methods for removal of SO_2 from flue gas. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; ABSORPTION;AMINES;AMMONIA;AMMONIUM COMPOUNDS; CALCIUM CARBONATES;LIMESTONE

01594 (PB--203488) STUDY OF SULFUR RECOVERY FROM COAL REFUSE. LaRosa, P.J.; Michaels, H.J. Sep 1971. EPA--14-12-929. 65p. GPO $0.70; NTIS.
Removal of H_2S and SO_2 with recovery of sulfur. COAL;DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;SULFUR DIOXIDE;LIMESTONE;ECONOMICS; SULFUR;SOLID WASTES;WATER POLLUTION;CONTROL

01595 (PB--210 674) REDUCTION OF ATMOSPHERIC POLLUTION. VOLUME 2. APPENDICES 1-3. FINAL REPORT JUN 1970--JUN 1971. SEE ALSO VOLUME 1, PB--210 673 AND VOLUME 3, PB--210 675. (National Coal Board, London (England). Fluidised Combustion Control Group). Sep 1971. Contract CPA--70-97. 498p.p. (DHB--060971-Vol-2; APTD--1083). NTIS $12.50, $0.95 (MF).
Reduction of SO_2, nitrogen oxide, and particulate contents of flue gas by fluidized bed combustion of coal. COAL;COMBUSTION; FLUIDIZED BED;PURIFICATION;DESULFURIZATION;FUEL GAS;REMOVAL;SULFUR DIOXIDE;NITROGEN OXIDES;COAL GAS

01596 RECOVERY OF SULFUR DIOXIDE FROM INDUSTRIAL WASTES. Ibragimov, F.K.; Valitov, N.K.; Panchenkov, G.M.; Sivak, G.I. Sov. Chem. Ind.; No. 9, 625-7(Sep 1971). (Trans. of Russian Khim. Prom.).
By catalytic oxidation using a sulfur--vanadium--silica gel catalyst. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; OXIDATION;CATALYSTS;SULFUR;VANADIUM;SILICA GEL

01597 (PB--210 673) REDUCTION OF ATMOSPHERIC POLLUTION. VOLUME 1. MAIN REPORT. FINAL REPORT JUNE 1970--JUNE 1971. SEE ALSO VOLUME 2, PB--210 674. (National Coal Board, London (England). Fluidised Combustion Control Group). Sep 1971. Contract CPA--70-97. 169p.p. (DHB--060971-Vol-1; APTD--1082). NTIS $6.00, $0.95 (MF).
Reduction of SO_2, nitrogen oxide, and particulate emissions in flue gas by use of fluidized bed coal combustion process with added limestone or dolomite. COAL;COMBUSTION; FLUIDIZED BED;LIMESTONE;DOLOMITE;PURIFICATION; DESULFURIZATION;FLUE GAS;REMOVAL;SULFUR DIOXIDE; NITROGEN OXIDES;PARTICLES;COAL GAS

01598 (PB--210 675) REDUCTION OF ATMOSPHERIC POLLUTION. VOLUME 3. APPENDICES 4-9. FINAL REPORT JUN 1970--JUN 1971. SEE ALSO VOLUME 2, PB--210 674. (National Coal Board, London (England). Fluidised Combustion Control Group). Sep 1971. Contract CPA--70-97. 535p.p. (DHB--060971-Vol-3; APTD--1084). NTIS $12.50, $0.95 (MF).
Reduction of SO_2 content of flue gas by fluidized bed combustion of coal. COAL; COMBUSTION;FLUIDIZED BED;DESULFURIZATION;FLUE GAS;REMOVAL;SULFUR DIOXIDE;NITROGEN OXIDES; PURIFICATION;COAL GAS

01599 HYDROCARBON-DESULFURIZING COMPOSITIONS. Collomb, F.; Fourre, C. (to Aquitainechimie Usine de Pardies (France)). German(FRG) Patent 2,144,567. 6 Sep 1971. 12p. (In German).
Chemical preparation of copper oxide catalyst on aluminium oxide carrier for use in desulfurization process. DESULFURIZATION; CATALYSTS;CHEMICAL PREPARATION;COPPER OXIDES; ALUMINIUM OXIDES;CARRIERS

01600 SOLVENT EXTRACTION OF ORGANIC SULFUR AND NITROGEN COMPOUNDS FROM COAL. Meyers, R.A. (to TRW Inc.). German(FRG) Patent 2,108,786. 16 Sep 1971. 20p.
40% reduction of organic S with no change in Btu value. SOLVENT EXTRACTION;ORGANIC SULFUR COMPOUNDS;COAL;DESULFURIZATION;REMOVAL;ORGANIC NITROGEN COMPOUNDS;PURIFICATION

01601 SOLVATION AND HYDROGENATION OF COAL IN PARTIALLY HYDROGENATED HYDROCARBON SOLVENTS. Leaders, W.M.; Roach, J.W. (to Kerr-McGhee Corp.). US Patent 3,607,718. 21 Sep 1971. 10p.
Removal of organic and inorganic S compounds. COAL;HYDROGENATION;SOLVATION; SLURRIES;ORGANIC SULFUR COMPOUNDS;REMOVAL; DESULFURIZATION;SULFIDES;HYDROCARBONS; PRODUCTION

01602 (PB--198861-F) PROPOSED PILOT PLANT, FORT LEWIS, WASHINGTON. 27 Sep 1971. 40p. NTIS $3.00.
Research on solvent-refined coal. SOLVENT-REFINED COAL;COAL;DESULFURIZATION;PILOT PLANTS; ENVIRONMENTAL EFFECTS;PRODUCTION

01603 FLUE GAS DESULFURIZATION TECHNOLOGY. Welty, A.B., Jr. Hydrocarbon Process; 50: No. 10, 104-8(Oct 1971).
From Amer. Inst. Chem. Engrs., Southern Calif. Sec., Technical Symposium; California (Apr 1971).
Fundamentals and technological advances. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE

01604 (PB--213 639/8) PILOT SCALE UP OF PROCESSES TO DEMONSTRATE UTILIZATION OF PULVERIZED COAL FLYASH MODIFIED BY THE ADDITION OF LIMESTONE-DOLOMITE SULFUR DIOXIDE REMOVAL ADDITIVES. FINAL REPORT. (West Virginia Univ., Morgantown. Coal Research Bureau). Oct 1971. Contract CPA--70-66. 109p.p. (EPA-R2--72-027). NTIS $3.00, $0.95 (MF).
PILOT PLANTS;SULFUR DIOXIDE;REMOVAL;WASTE DISPOSAL;FLY ASH;DESULFURIZATION

01605 CONTRIBUTION OF THE ENVIRONMENTAL PROMOTION TECHNOLOGY (PROCEDURES AND PRODUCTS) PROJECT GROUP. pp 335-56 of Materialien zum umweltprogramm der bundesregierung 1971. Umweltplanung; Lower House of Parliament, 6th Session (Oct 1971). (In German)
Flue gas desulfurization with 80% efficiency. FLUE GAS;DESULFURIZATION;EFFICIENCY; PILOT PLANTS;OILS

01606 (PB--209 023) PILOT SCALE INVESTIGATION OF A VENTURI-TYPE CONTRACTOR FOR REMOVAL OF SO_2 BY THE LIMESTONE WET-SCRUBBING PROCESS. FINAL REPORT. (Cottrell Environmental Systems, Inc., Bound Brook, NJ). Oct 1971. Contract EPA-EHSD--71-24. 142p.p. (APTD--1070). NTIS $3.00, $0.95 (MF).
FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;SCRUBBING;LIMESTONE;CALCIUM OXIDES;

SODIUM CARBONATES;CALCIUM CARBONATES;CONTROL; FOSSIL-FUEL POWER PLANTS;COAL GAS;VENTURI SCRUBBERS

01607 (PB--213639) PILOT SCALE UP OF PROCESSES TO DEMONSTRATE UTILIZATION OF PULVERIZED COAL FLYASH MODIFIED BY THE ADDITION OF LIMESTONE-DOLOMITE SULFUR DIOXIDE REMOVAL ADDITIVES. FINAL REPORT. Lawrence, W.; Mutler, R.; Anderson, R.; Condry, L. (West Virginia Univ., Morgantown, Coal Research Bur., Off. of Air Programs). Oct 1971. Contract CPA 70-66. 109p. (EPA-R2--72-027). NTIS.
FLY ASH;DOLOMITE;LIMESTONE;SULFUR DIOXIDE; REMOVAL;PILOT PLANTS;SULFATES;COST

01608 (PB--204711) EVALUATION OF SO_2-CONTROL PROCESSES: TASK NO. 5 FINAL REPORT. (Kellogg (M.W.) Co., Piscataway, N.J. (USA)). 15 Oct 1971. Contract CPA--70-68. 271p. NTIS.
Technical and economic evaluations of feasibility of 12 different processes for control of S dioxide. FLOWSHEETS;TABLES; DIAGRAMS;ECONOMICS;SULFUR DIOXIDE; DESULFURIZATION;AIR POLLUTION;COMPARATIVE EVALUATIONS;REMOVAL

01609 (PB--204711) EVALUATION OF SO_2-CONTROL PROCESSES. TASK NO. 5 FINAL REPORT. (Kellogg (M.W.) Co., Piscataway, N.J. (USA)). 15 Oct 1971. Contract CPA 70-68. 265p. Dep. NTIS.
Preliminary process designs and economic evaluations of 12 SO_2-control processes. RESEARCH PROGRAMS;SULFUR DIOXIDE;ECONOMICS; COMPARATIVE EVALUATIONS;SULFUR;REMOVAL; LIMESTONE;FLUE GAS;DESULFURIZATION

01610 APPARATUS AND METHOD OR PURIFYING GASES CONTAINING AMMONIA AND HYDROGEN SULFIDE. Martens, T. (to N.V. Sidmar, Gent (Belgium)). German(FRG) Patent 2,152,443. 21 Oct 1971. 14p. (In German).
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01611 MANUFACTURE OF GYPSUM FROM FLUE GASES CONTAINING SULFUR DIOXIDE. Morita, T.; Funabashi, I.; Isao, S. (to Kureha Chemical Industry Co., Ltd., Japan). German(FRG) Patent 2,153,098. 25 Oct 1971. 12p. (In German).
Absorption of SO_2 in aqueous solution of sodium sulfite, conversion to calcium sulfite, and then oxidation. FLUE GAS;DESULFURIZATION; REMOVAL;SULFUR DIOXIDE;ABSORPTION;AQUEOUS SOLUTIONS;SODIUM COMPOUNDS;SULFITES;PRODUCTION; GYPSUM

01612 (PB--212 960/9) EVALUATION OF THE FLUIDIZED BED COMBUSTION PROCESS. VOLUME II, TECHNICAL EVALUATION, SEE ALSO VOLUME 1, PB--211 494. Archer, D.H.; Keairns, D.L.; Hamm, J.R. (Westinghouse Research Labs., Pittsburgh, PA). Nov 1971. CPA-70-9. 619p.p. (APTD--1166). NTIS $9.00, $0.95 (MF).
Removal of SO_2 from flue gases by limestone scrubbing. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR DIOXIDE;LIMESTONE;SCRUBBING;COST;COAL GAS;ECONOMICS;COMBUSTION;FLUIDIZED BED

01613 APPARATUS AND METHOD FOR PURIFYING GASES CONTAINING AMMONIA AND HYDROGEN SULFIDE. Sidmar, N.V. Belgian Patent 768,409. 3 Nov 1971.
Coke-oven gas passed through spray of $FeSO_4$ solution; H_2S reduced from 8q/m^3 to 1 ppN and NH_3 from 10q to 20 mg/m^3. EQUIPMENT; PURIFICATION;DESULFURIZATION;AMMONIA;HYDROGEN SULFIDES;REMOVAL;COAL GAS;IRON SULFATES;AQUEOUS SOLUTIONS

01614 (PB--213 152/2) EVALUATION OF THE FLUIDIZED BED COMBUSTION PROCESS. VOLUME III. APPENDICES, SEE ALSO VOLUME 2, PB--212 960. Archer, D.H.; Keairns, D.L.; Hamm, J.R. (Westinghouse Research Labs., Pittsburgh, PA). 15 Nov 1971. CPA--70-9. 1013p.p. (APTD--1167-3). NTIS $13.00, $0.95 (MF).
Evaluation of fluidized bed combustion for steam-power generation. FLUE GAS; DESULFURIZATION;COST;COAL GAS;FLUIDIZED BED; COMBUSTION;COAL

01615 REMOVAL AND RECOVERY OF SULFUR OXIDES FROM GASES. (to Westvaco Corp., New York). British Patent 1,257,096. 15 Dec 1971. Filed date 28 Jul 1969. 10p.
By adsorption on activated carbon. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR OXIDES; ADSORPTION;ACTIVATED CARBON;REGENERATION

01616 ION EXCHANGERS FOR ADSORBING SULFUR DIOXIDE FROM AIR. Clemens, D.H.; Kunin, P. (to Rohm and Haas Co., Philadelphia, PA). German(FRG) Patent 2,164,261. 23 Dec 1971. 42p. (In German).
Crosslinked vinyl polymers. GASES; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; ADSORPTION;ION EXCHANGE MATERIALS;PYRIDINES; POLYMERS

01617 (PB--210 246) STUDIES OF THE FLUIDIZED LIME-BED COAL COMBUSTION DESULFURIZATION SYSTEM. PART 1. DESIGN OF THE HIGH PRESSURE FLUIDIZED BED COMBUSTION LIME REGENERATION PILOT UNIT - THE FBCR MINIPLANT. PART 2. FACTORS AFFECTING NOX FORMATION AND CONTROL IN FLUIDIZED BED COMBUSTION. FINAL REPORT 1 JAN--31 DEC 1971. Skopp, A.; Nutkis, M.S.; Hammons, G.A.; Bertrand, R.R. (Esso Research and Engineering Co., Linden, NJ. Government Research Lab). 31 Dec 1971. Contract EPA-CPA--70-19. 126p.p. (APTD--1116). NTIS $3.00, $0.95 (MF).
COAL;COMBUSTION;FLUIDIZED BED;FLUE GAS; DESULFURIZATION;SULFUR OXIDES;NITROGEN OXIDES; LIMESTONE;COAL GAS

01618 MOLTEN CARBONATE PROCESS FOR SULFUR DIOXIDE REMOVAL FROM STACK GASES: PROCESS DESCRIPTION, ECONOMICS, PILOT PLANT DESIGN. Botts, M.V.; Oldenkamp, R.D. Pittsburgh, PA; Air Pollution Control Assoc., Prepr. (1972). 15p.
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FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR OXIDES;CHEMICAL REACTIONS;MOLTEN SALTS;LITHIUM CARBONATES;SODIUM CARBONATES;POTASSIUM CARBONATES;REGENERATION;HYDROGEN SULFIDES;CLAUS PROCESS;PILOT PLANTS;ECONOMICS;SULFUR

01619 ON STACK GAS DESULFURIZATION DEVICE FOR MEDIUM AND SMALL-SIZED BOILERS. Okada, Y. pp 53-9 of Preprint. Tokyo; Japan Heat Management Assoc. (1972). (In Japanese)
From 13. Conference of the Japan Heat Management Association; Tokyo (18 Oct-20 Oct 1972).
Sprays liquid caustic soda into scrubbing drum. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;SCRUBBING;SODIUM HYDROXIDES

01620 STUDY ON DESULFURIZATION OF COAL. Yoshinaga, S.; Iki, S.; Nagaishi, T.; Matsumoto, M. pp 137 of Proc. Symp. Japan Soc. Air Pollut., Paper 92. Tokyo, Japan; Japan Society of Air Pollution (1972). (In Japanese)
From 13. Symposium of Japan Society of Air Pollution; (7 Nov-9 Nov 1972).

Adsorption agent is a combination of manganese oxide and calcium carbonate or calcium hydroxide. FLUE GAS;DESULFURIZATION; REMOVAL;SULFUR DIOXIDE;ADSORPTION;MIXTURES; MANGANESE OXIDES;CALCIUM CARBONATES;CALCIUM HYDROXIDES

01621 SULPHUR REMOVAL DURING FLUIDISED BED COMBUSTION. Moss, G. Birmingham Univ. Chem. Engr.; 23: No. 1, 24-30(1972).
Combustion in fluidized beds of lime under both oxidizing and reducing conditions. COAL; COMBUSTION;FLUIDIZED BED;DESULFURIZATION; LIMESTONE;REMOVAL;SULFUR;CHEMICAL REACTIONS; REGENERATION

01622 AMMONIA INJECTION: ROUTE TO CLEAN STACKS. Shale, C.C. Amer. Chem. Soc., Div. Fuel Chem., Preprints; 17: No. 2, 106-13(1972).
From 164. National Meeting of American Chemical Society; New York (27 Aug-1 Sep 1972).
Efficiency SO_2 removal from fue gas. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; INJECTION;AMMONIA;SCRUBBING;SODIUM HYDROXIDES; SOLUTIONS;REGENERATION

01623 ABSORPTION OF TRACE SULFUR DIOXIDE GAS BY SODIUM HYDROXIDE SOLUTION. Mori, O.; Tanaka, H.; Adachi, F. pp 136 of Proc. Symp. Japan Soc. Air Pollut., Paper 91. Tokyo, Japan; Japan Society of Air Pollution (1972). (In Japanese)
From 13. Symposium of Japan Society of Air Pollution; (7 Nov-9 Nov 1972).
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01624 SDK DESULFURIZING PROCESS. Miyazaki, K.; Yoshida, S.; Nagai, S. pp 139 of Proc. Symp. Japan Soc. Air Pollut., Paper 94. Tokyo, Japan; Japan Society of Air Pollution (1972). (In Japanese)
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Sodium hydroxide solution is used as absorbent. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR OXIDES;CHEMISORPTION;SOLUTIONS;SODIUM HYDROXIDES;REGENERATION;GYPSUM;CALCIUM OXIDES

01625 ENDURANCE TEST FOR A DESULFURIZATION SYSTEM AND THE TREATMENT OF ITS WASTE LIQUID. Minemura, K.; Shoji, I.; Nakamura, T.; Nishimura, S.; Noguchi, S.; Himi, K.; Kobayashi, Y. pp 138 of Proc. Symp. Japan Soc. Air Pollut., Paper 93. Tokyo, Japan; Japan Society of Air Pollution (1972). (In Japanese)
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01626 SO_2 ELIMINATING FILTER. Matsunaga, N.; Yoshidome, A.; Azuma, T. pp 146 of Proc. Symp. Japan Soc. Air Pollut., Paper 101. Tokyo, Japan; Japan Society of Air Pollution (1972). (In Japanese)
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Sodium carbonate treated glass fiber filter efficiency. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR DIOXIDE;FILTRATION;EFFICIENCY;GLASS; FIBERS;SODIUM CARBONATES

01627 POLLUTION ABATEMENT WITH EMPHASIS ON SO_2 REMOVAL. Lewis, C.J. Washington, DC; National Lime Assoc. (1972). 3p.
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Design of lime scrubbing pilot plant. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; SCRUBBING;CALCIUM OXIDES;PILOT PLANTS;SLURRIES

01628 POLLUTION ABATEMENT WITH EMPHASIS ON SO_2 REMOVAL. Lewis, C. Washington, DC; National Lime Assoc. (1972). 3p.
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Role of lime scrubbing in SO_2 control technology. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR DIOXIDE;SCRUBBING;CALCIUM OXIDES

01629 EVALUATION OF SOLID MINERAL WASTES OR REMOVAL OF SULFUR FROM FLUE GASES. McCrea, D.H.; Cinquegrane, G.J.; Leister, R.J.; Forney, A.J. pp 153-60 of Proc. Miner. Waste Util. Symp., 3rd. Washington, DC; Chicago, IL; Bur. of Mines; IIT Research Inst. (1972).
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Possibility of using red mud (from bauxite refining) or a lead--zinc ore tailings for removal of SO_2 from flue gases. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; CHEMISORPTION;MINERALS;WASTES

01630 REMOVAL AND RECOVERY OF SULPHUR DIOXIDE FROM POWER PLANT GASES USING MAGNESIUM BASED PROCESSES. Williams, N.; Srinivasan, G.; Wechselblatt, P. Frankfurt, W. Ger.; DECHEMA Inst. (1972). 13p.
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01632 NITROGEN OXIDES CONTROL MEASURES AND DESULFURIZATION OF BOILER STACK GAS. Ishibashi, K. pp 47-55 of Preprint, Japan Soc. Mech. Engrs. Tokyo, Japan; Japan Soc. Mech. Engrs., Kansai Branch (1972). (In Japanese)
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REMOVAL;OILS

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01638 (PB--227860/4GA) SURVEY OF METHODS OF CONTROLLING STACK GAS EMISSIONS FROM POWER PLANTS. Aleta, C.R. (Cornell Univ., Ithaca, N.Y. (USA)). 1972. 16p. NTIS.
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Review of work in Poland. FLUE GAS; DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;IRON OXIDES;AQUEOUS SOLUTIONS;SODIUM CARBONATES; CHEMISORPTION

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SCRUBBING;CALCIUM OXIDES;LIMESTONE;POWER PLANTS

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01668 CONTRIBUTION OF THE FUEL RESEARCH INSTITUTE TO THE SOLUTION TO THE PROBLEM OF SULPHUR OXIDE EMISSIONS FROM THERMAL POWER STATIONS. pp 171-93 of Sb. Prednasek 50 (Padesatemu) Vyroci Ustavu Vyzk. Vyuziti Paliv. Vejvoda, J.; Cernoch, M. Prague, Czechoslovakia; Ustav pro Vyzkum a Vyuziti Paliv (1972). (In Cezch)
Preparation of alkalinized alumina absorbent with introduced metal for regeneraton purposes was successful with Ni or Co; reaction of S dioxide and carbonates of alkaline earth metals was studied. SULFUR DIOXIDE;REMOVAL;FLUE GAS; DESULFURIZATION;CHEMISORPTION;EQUIPMENT

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FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;CATALYSTS;VANADIUM COMPOUNDS;FLUIDIZED BED

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Use of epoxide resin to protect regenerator used in removal of H_2S from coke-oven gas. COAL GAS;DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES; EQUIPMENT;CORROSION;EPOXIDES;RESINS

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Treatement of some coals with aqueous Fe^{3+} solution removes 40-75% of S content through nearly complete oxidation of pyritic S. DESULFURIZATION;COAL;SULFUR;REMOVAL;PYRITES; OXIDATION

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Laboratory flotation unit designed for

testing process of flotation of pyritic material in coal. SULFUR;REMOVAL;COAL;FLOTATION; PYRITES;EQUIPMENT;DESULFURIZATION

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Review with no references. DESULFURIZATION; COAL;SULFUR;REMOVAL;REVIEWS

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Increase in As concentration increases stability of solution. SULFUR;REMOVAL; DESULFURIZATION;AIR;SODIUM CARBONATES; ABSORPTION;ARSENIC;GASES

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01686 REMOVAL OF SULFUR COMPOUNDS FROM COKE-OVEN GAS BY ABSORPTION IN AN INFILTRATIVE MANGANESE ORE. Buchukuri, N.Y.; Nebieridze, N.V.; Buchukuri, Y.G. (USSR). Tr. Gruz. Politekh. Inst.; No. 5, 100-3(1972).
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01692 EFFECT OF THE HEATING RATE ON THE DESULFURIZATION OF COALS DURING COKING. Bruk, A.S.; Bublik, A.I.; Leibovich, R.E.; Medyanik, O.F.; Chuchminov, V.M. (USSR). Met. Koksokhim.; No. 32, 35-8(1972).
Reduced coking rates at 300-400° and 400-600° contributed to desulfurization of coals. COAL;DESULFURIZATION;HEATING;KINETICS;SULFUR; REMOVAL

01693 ESTIMATION OF THE EFFICIENCY OF DESULFURIZING COALS DURING CLEANING. Zerubin, L.S.; Yagodkina, T.K. (USSR). Tr. Inst. Obogashch. Tverd. Goryuch. Iskop.; 1: No. 2, 3-8(1972).
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COAL;DESULFURIZATION;FLOTATION;REMOVAL; PYRITES

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Removal of SO_2 from flue gas by injection of limestone into combustion chamber. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; LIMESTONE;COAL;COMBUSTION;FLUIDIZED BED;COAL GAS

01700 (PB--203228-F) FINAL ENVIRONMENTAL STATEMENT, NAVAJO PROJECT. (Department of the Interior, Washington, D.C. (USA)). 4 Feb 1972. 238p. (FES--72-1). NTIS.
Removal of SO_2, nitrogen oxides, and fly ash from flue gas at Navajo Generating Station. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; PURIFICATION;NITROGEN OXIDES;FLY ASH

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By contact with H_2S at the adsorption temperature. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR DIOXIDE;REGENERATION;SULFURIC ACID; ADSORPTION;HYDROGEN SULFIDES;COKE

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Part of flue gas is washed with dilute H_2SO_4 obtained as wash water from the activated carbon adsorption towers of the main unit. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; ACTIVATED CARBON;WASHING;SULFURIC ACID; ADSORPTION

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Use of Zr oxide as absorbent. SULFUR OXIDES; REMOVAL;ZIRCONIUM OXIDES;CHEMICAL PREPARATION; GASES;DESULFURIZATION

01705 ZIRCONIUM DIOXIDE ADSORBENT FOR SULFUR DIOXIDE. Pitts, F. (to Magnesium Elektron Ltd., Manchester, England). German(FRG) Patent 2,133,451. 24 Feb 1972. Filed date 6 Jul 1971. 10p. (In German).
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01706 REMOVING CARBON DIOXIDE AND/OR HYDROGEN SULFIDE FROM GAS MIXTURES. (to Shell Internationale Research Maatschappij N.V.). Netherlands Patent 3,928. 25 Feb 1972.
Removal of CO_2 and/or H_2S by absorption by liquid compound containing Keto group. CARBON DIOXIDE;REMOVAL;HYDROGEN SULFIDES;GASES; PURIFICATION;DESULFURIZATION

01707 FACTORS AFFECTING EMISSION OF ODOROUS REDUCED SULFUR COMPOUNDS FROM MISCELLANEOUS KRAFT PROCESS SOURCES. Tech. Bull. No. 60. New York; National Council of the Paper Industry for Air and Stream Improvement, Inc. (Mar 1972). 37p.
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Description of representative processes in all categories of gas desulfurization; review with 52 references. GASES;DESULFURIZATION; REMOVAL;HYDROGEN SULFIDES;SULFUR DIOXIDE; CHEMICAL REACTIONS;AMINES;REGENERATION;REVIEWS

01709 WAR ON POLLUTION, DESULPHURIZATION OF FUELS AND FUEL GASES. Lemoine, P. Euro-Spectra; 11: No. 1, 8-11(Mar 1972).
State-of-the-art; economics. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;COAL GASIFICATION;ECONOMICS

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New method for disposal of product (H_2SO_4) and regeneration of activated carbon. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; ADSORPTION;ACTIVATED CARBON;REGENERATION; SULFURIC ACID;SEAWATER;LIMESTONE

01711 REMOVAL OF SULFUR DIOXIDE FROM WASTE GASES. Villiers-Fisher, J.F. (to Chemical Construction Corp., NY). US Patent 3,650,692. 21 Mar 1972. Filed date 9 Dec 1969. 6p.
Scrubbing with an aqueous magnesium oxide sulfite slurry. FLUE GAS;DESULFURIZATION; REMOVAL;SULFUR DIOXIDE;SCRUBBING;AQUEOUS SOLUTIONS;SLURRIES;MAGNESIUM OXIDES;MAGNESIUM COMPOUNDS;SULFITES;REGENERATION

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Description of process and regeneration. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; ADSORPTION;ACTIVATED CARBON;REGENERATION

01713 (PB--210 821) EVALUATION OF COAL CLEANING PROCESSES AND TECHNIQUES FOR REMOVING PYRITIC SULFUR FROM FINE COAL. (Bituminous Coal Research, Inc., Monroeville, PA). Apr 1972. Contract EPA--68-02-0024. 174p.p. (APTD--1160). NTIS $6.00, $0.95 (MF).
BITUMINOUS COAL;COAL;DESULFURIZATION;REMOVAL; PYRITES

01714 SULFUR DIOXIDE ABSORPTION KINETICS IN ALKALINE SOLUTIONS UNDER FOAMING CONDITIONS. Tarat, E.Y.; Ponomarev, Y.L.; Antropov, B.V. Zh. Prikl. Khim.; 45: No. 5, 1016-22(May 1972). (In Russian).
Absorption kinetics for sodium carbonate and sodium sulfite solutions. SULFUR DIOXIDE; CHEMISORPTION;SOLUTIONS;SODIUM CARBONATES; SODIUM COMPOUNDS;SULFITES;FOAMS

01715 (PB--211505) SURVEY OF COAL AVAILABILITIES BY SULFUR CONTENT. (FINAL REPORT). Hoffman, L.; Lysy, F.J.; Morris, J.P.; Yeager, K.E. May 1972. 157p. (MTR--6086). NTIS.
Desulfurization would increase low sulfur steam coal production by 56%. COAL RANK;COAL RESERVES;COAL;DESULFURIZATION;COAL MINING

01716 METHOD FOR DEVELOPMENT OF STACK GAS DESULFURIZATION DEVICES. Kusuyata, T. Kagaku Kogaku; 17: No. 5, 481-4(May 1972). (In Japanese).
Advantages and disadvantages of dry limestone method. FLUE GAS;DESULFURIZATION; REMOVAL;SULFUR OXIDES;CHEMISORPTION;LIMESTONE

01717 WET TYPE CALCIUM BASE EXHAUST GAS DESULFURIZATION FACILITIES - OUTLINE OF FACILITIES. Japan; Mitsui Aluminium Co., Ltd., Miike Thermal Power Plant (May 1972). 6p. (In Japanese).
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01718 (PB--211 505) SURVEY OF COAL AVAILABILITIES BY SULFUR CONTENT. FINAL REPORT. Hoffman, L.; Lysy, F.J.; Morris, J.P.; Yeager, K.E. (Mitre Corp., McLean, VA). May 1972. 171p.p. (MTR--6086; EPA-R2--72-022). NTIS $3.00, $0.95 (MF).
Effects of physical desulfurization on availability of low sulfur coals. COAL; DESULFURIZATION;REMOVAL;SULFUR;COST;COAL RESERVES;AVAILABILITY

01719 KURHEA-SYSTEM STACK GAS DESULFURIZATION PROCESS. Morita, T. Kagaku Kogaku; 17: No. 5, 497-503(May 1972). (In Japanese).
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01720 WASTE GAS DESULFURIZATION ACCOMPANIED BY DENITRATION. Nakagawa, S. Kagaku Kogaku; 17: No. 5, 521-7(May 1972). (In Japanese).
Desulfurization processes can also remove nitrogen oxides if properly used. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; CHEMISORPTION;CALCIUM OXIDES;AMMONIA;SULFURIC ACID;MAGNESIUM;PRODUCTION;GYPSUM;PURIFICATION; NITROGEN OXIDES

01721 WELLMAN--LORD TYPE STACK GAS DESULFURIZATION PROCESS. Yoshimura, Y. Kagaku Kogaku; 17: No. 5, 485-90(May 1972). (In Japanese).
Basic mechanisms and performance. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;WELLMAN-LORD PROCESS

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01726 CYCLIC PROCESS FOR REMOVAL OF HYDROGEN SULFIDE AND AMMONIA FROM COKE-OVEN GAS. Weber, H.; Choulat, G.; Laufhuette, D. (to Fairma Carl Still). German(FRG) Patent 2,056,727. 25 May 1972.
H_2S scrubbed selectively with NH_4OH; NH_3 bound by aqueous solution of $(NH_4)H_2PO_4$--$(NH_4)_2HPO_4$. HYDROGEN SULFIDES;REMOVAL;AMMONIA; COAL GAS;DESULFURIZATION;PURIFICATION

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Appendix to Vol. 1; includes computer programs for analysis of leaching proesses and results of laboratory experiments. COAL; DESULFURIZATION;COMPUTER CODES;LEACHING

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Desulfurization of coal by Meyer's process in which pyritic S is oxidized as elemental S and as Fe sulfate; preliminary design and cost estimate for 100ton/hr desulfurization plant. COAL;DESULFURIZATION;PYRITES;SULFUR;OXIDATION; IRON COMPOUNDS;AQUEOUS SOLUTIONS;REMOVAL;IRON SULFATES;COST

01888 LITERATURE SURVEY ON COAL DESULFURIZATION. Wu, J.M.-T. (Pennsylvania State Univ., University Park, PA). K'uang Yeh; 17: No. 1, 82-91(1973).
Methods for reduction of S content of coal with 91 references; main methods discussed are flotation, air-steam oxidation, chloridization, bacterial and chemical leaching, and physical separation. COAL;DESULFURIZATION;REVIEWS; FLOTATION;OXIDATION;LEACHING

01889 FLOTATION OF PYRITE FROM COAL. PILOT PLANT STUDY. Miller, K.J. (Pittsburgh Energy Res. Cent., Bur. Mines, Pittsburgh, PA). U. S. Bur. Mines, Rep. Invest.; No. RI7822, 15p.(1973).
70-90% of pyritic S in coal may be separation by 2-stage froth flotation with K amyl xanthate collector. COAL;PYRITES;FLOTATION; REMOVAL;DESULFURIZATION;BITUMINOUS COAL

01890 SULPHUR REMOVAL DURING FLUIDIZED BED COMBUSTION. Beranek, J. London, Engl.; Inst. of Chem. Eng. (1973). 19p.
From Control of Gaseous Sulphur Compd. Emiss., Int. Conf.; Univ. of Salford, Engl. (10 Apr-12 Apr 1973).
Use of limestone for sulfur removal. COAL; COMBUSTION;FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR;FLUIDIZED BED;LIMESTONE

01891 CHEMICAL REMOVAL OF PYRITIC SULFUR FROM COAL. Hamersma, J.W.; Kraft, M.L.; Koutsoukas, E.P.; Meyers, R.A. (TRW Syst. Group, Redondo Beach, CA). Advan. Chem. Ser.; 127: 69-79(1973).
Aqueous ferric salts selectively oxidize pyrite S to forms that can be removed by vaporization, steam, or solvent extraction. PYRITES;REMOVAL;COAL;DESULFURIZATION;SOLVENT EXTRACTION;STEAM

01892 ANALYSIS OF A DYNAMIC MODEL FOR THE TWO-STAGE MONOETHANOLAMINE PURIFICATION OF COKE OVEN GAS BY THEORY-OF-GRAPHS METHODS. Kafarov, V.V.; Perov, V.L.; Blonskii, S.D. (Dnepropetr. Fil., Gos. Nauchno-Issled. Proekt. Inst. Azotn. Prom. Prod., Org. Sint., Dnepropetrovsk, USSR). Khim. Tekhnol. (Kiev); 4: 53-7(1973).
Analysis of dynamic model of 2-stage extraction of CO_2 and H_2S. COAL GAS;ALCOHOLS; AMINES;CARBON DIOXIDE;HYDROGEN SULFIDES;REMOVAL; PURIFICATION;DESULFURIZATION;SOLVENT EXTRACTION

01893 FLOTATION OF PYRITE FROM COAL. PILOT PLANT STUDY. Miller, K.J. (U. S. Bur. of Mines, Washington, DC). Govt. Rep. Annouce. (U. S.); 73: No. 24, 301(1973).
Tabulated and graphic results plus pilot plant flowsheet and photograph of flotation cells in operation. COAL;PYRITES;FLOTATION; PILOT PLANTS;TABLES;DIAGRAMS;FLOWSHEETS;REMOVAL; DESULFURIZATION

01894 PREPARATION CHARACTERISTICS AND DESULFURIZATION POTENTIAL OF IOWA COALS. Cavallaro, J.A.; Van Eck, O.J. (Pittsburgh Energy Res. Cent., Bur. Mines, Pittsburgh, PA). U. S. Bur. Mines, Rept. Invest.; No. RI 7830, 32p.(1973).
High S content (4.2-10.4%); organic S was 0.8-3.8%; pyritic S content reduced by crushing and washing. COAL;IOWA;DESULFURIZATION;PYRITES; ORGANIC SULFUR COMPOUNDS;WASHING;CRUSHING; REMOVAL

01895 REMOVAL OF SULPHUR OXIDES FROM FLUE GASES BY POWDERED LIMESTONE. Zalogin, N.G. Therm. Eng. (USSR) (Engl. Transl.); 20: No. 1, 46-50(Jan 1973).
FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;ABSORPTION;LIMESTONE

01896 IMPROVING THE SULFUR DIOXIDE ADSORPTION CAPACITY OF A XYLITE LOW-TEMPERATURE COKE THROUGH ACTIVATING ADDITIVES. Elenkov, D.; Grozev, G. Wasser, Luft Betr.; 17: No. 1, 15-9(Jan 1973). (In German).
Effectiveness of Cu, Mo, Mn, V, and Co as activating additives. SULFUR DIOXIDE;ADSORPTION; ACTIVATED CARBON;COKE;CATALYSTS;ADDITIVES; COPPER;MOLYBDENUM;MANGANESE;VANADIUM;COBALT

01897 STUDIES OF THE EFFECTIVENESS OF THE SORPTION OF SO_2 ON ION EXCHANGERS. I - LABORATORY STUDIES. Glowiak, B.; Gostomczyk, A. Staub-Reinhalt. Luft; 33: No. 1, 29-32(Jan 1973). (In German).
Effectiveness of anion exchanger (wofatite). SULFUR DIOXIDE;ADSORPTION;ION EXCHANGE MATERIALS;EFFICIENCY;REGENERATION

01898 FABRIC FILTER: ANOTHER OPTION FOR FLUE GAS CLEANUP. Pring, R.T. Power Eng.; 77: No. 1, 48-51(Jan 1973).
Effectiveness of baghouse system for particulate and SO_2 control. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; FILTRATION;FILTERS

01899 MEDIUM- AND SMALL-SCALE WET TYPE FLUE GAS DESULFURIZATION DEVICES. Yukitomo, M. Gijutsu to Kogai (Tech. Pollut.); 3: No. 1, 134-6(Jan 1973). (In Japanese).
Caustic water solution (sodium sulfite) is scrubbing medium. FLUE GAS;DESULFURIZATION; REMOVAL;SULFUR DIOXIDE;SCRUBBING;AQUEOUS SOLUTIONS;SODIUM COMPOUNDS;SULFITES;COST

01900 REMOVAL OF SULPHUR OXIDES FROM FLUE GASES BY POWDERED LIMESTONE. Zalogin, N.G. Therm. Eng. (USSR) (Engl. Transl.); 20: No. 1, 46-50(Jan 1973).
Applications in USSR. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR OXIDES; CHEMISORPTION;LIMESTONE;USSR

01901 FOSSIL FUEL YIELDS POWER+POLLUTION. Mills, G.A.; Perry, H. Chem. Technol.; 3: No. 1, 53-63(Jan 1973).
From Amer. Chem. Soc., Div. Petrol. Chem.; New York, NY (1972).
Flue gas desulfurization is major pollution contrl method; coal gasification and liquefaction offer alternatives. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; SCRUBBING;CALCIUM OXIDES;LIMESTONE;MAGNESIUM OXIDES;CATALYSTS;OXIDATION;COAL GASIFICATION; COAL LIQUEFACTION

01902 APPARATUS FOR CLEANING SULPHUR DIOXIDE-CONTAINING FLUE GASES. Gustavsson, K.A.G. (to Aktiebalaget Bahco Ventilation, Enkoping (Sweden)). US Patent 3,708,266. 2 Jan 1973. Filed date 24 Jul 1970. 5p.
Circulating system containing calcium carbonate slurry. FLUE GAS;DESULFURIZATION; REMOVAL;SULFUR DIOXIDE;CHEMISORPTION;SLURRIES; CALCIUM CARBONATES

01903 REMOVAL OF SO_2 FROM GAS STREAMS. Villiers-Fisher, J.F. (to Chemical Construction Corp., NY). US Patent 3,709,977. 9 Jan 1973. Filed date 16 Nov 1970. 5p.
By contact with solid basic ion exchange resin after first removing SO_3 by contact with an alkali. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR OXIDES;CHEMISORPTION;ION EXCHANGE MATERIALS;RESINS;CALCIUM OXIDES;CALCIUM HYDROXIDES;CALCIUM CARBONATES;MAGNESIUM OXIDES; MAGNESIUM CARBONATES;SODIUM HYDROXIDES;SODIUM CARBONATES;POTASSIUM HYDROXIDES;POTASSIUM CARBONATES

01904 GAS DESULFURIZATION PROCESS. Tarhan, M.O. (to Bethlehem Steel Corp., Bethlehem, PA). US Patent 3,709,976. 9 Jan 1973.

Filed date 21 Sep 1970. 6p.
Description of Claus process for removal of H_2S from flue gas. FLUE GAS;DESULFURIZATION; REMOVAL;HYDROGEN SULFIDES;CLAUS PROCESS

01905 (EIS-AL--73-0101) EXPERIMENTAL SO_2 REMOVAL SYSTEM AND WASTE DISPOSAL POND, WIDOWS CREEK STEAM PLANT, ALABAMA. FINAL ENVIRONMENTAL IMPACT STATEMENT. SUPERSEDES REPORT DATED 3 JUL 1972, EIS-AL--72-4819-D. (Tennessee Valley Authority, Chattanooga. Office of Health and Environmental Science). 16 Jan 1973. 125p.p. (TVA-EP-EIS--73-1; ELR--101). NTIS $8.25, $0.95 (MF).
Removal of SO_2 and fly ash from flue gases. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; SCRUBBING;LIMESTONE;COAL GAS;FLY ASH; ENVIRONMENTAL EFFECTS

01906 METHOD TO REMOVE SULFUR DIOXIDE FROM EXHAUST GAS. Hori, S. Japanese Patent 48-1301. 16 Jan 1973. Filed date 30 Dec 1970. 4p. (In Japanese).
By contact with liquid magnesium hydroxide. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; SOLUTIONS;MAGNESIUM HYDROXIDES

01907 METHOD TO REMOVE SULFUR DIOXIDE FROM SINTERING FURNACE EXHAUST GAS. Saito, Y.; Yokoi, M.; Itaya, S. (to Nippon Kokan Kabushiki Kaisha, Tokyo (Japan)). Japanese Patent 48-1304. 16 Jan 1973. Filed date 15 Nov 1970. 7p. (In Japanese).
By absorption with ammonium sulfite. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; ABSORPTION;AMMONIUM COMPOUNDS;SULFITES; REGENERATION;COAL GAS;AMMONIA

01908 MANUFACTURING METHOD FOR A DILUTE SULFUR DIOXIDE ABSORBENT. Sakai, K.; Nomura, F. (to Mitsui Mining and Smelting Co., Ltd., Tokyo (Japan)). Japanese Patent 48-1312. 16 Jan 1973. Filed date 27 Oct 1972. 2p. (In Japanese).
Manganese carbonate. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; MANGANESE CARBONATES;PRODUCTION;SINTERING

01909 MANUFACTURING METHOD OF ACTIVE CARBON USED IN DESULFURIZATION. Moriwake, Y.; Fukunaga, K.; Kihara, K.; Abe, S. (to Chugoku Sangyo Co., Ltd., Bizen (Japan)). Japanese Patent 48-1592. 18 Jan 1973. Filed date 14 Jun 1968. 2p. (In Japanese).
For removal of SO_2 from exhaust gases. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; ADSORPTION;ACTIVATED CARBON;CHEMICAL ACTIVATION; TEMPERATURE DEPENDENCE

01910 OXIDATION DESULFURIZATION METHOD FOR GASES CONTAINING SULFUR COMPOUNDS. Nishiba, Y.; Ota, K. (to Daiki Rubber Industrial Co., Ltd., Tokyo (Japan)). Japanese Patent 48-3066. 29 Jan 1973. Filed date 26 Dec 1968. 3p. (In Japanese).
Scrubbing solution contains oxygen compounds of halogenic acids. FLUE GAS;DESULFURIZATION; REMOVAL;SULFUR OXIDES;SCRUBBING;OXIDATION; HYPOCHLOROUS ACID

01911 PRESENT STUDIES ON WET DESULFURIZATION AT THE AMAGASAKI-HIGASHI POWER STATION. Ishibashi, K.; Kimijima, M.; Atsukawa, M. Kenyoku Hatsuden; 23: No. 2, 136-44(Feb 1973). (In Japanese).
Description of calcium hydroxide--calcium sulfate method. FLUE GAS;DESULFURIZATION; REMOVAL;SULFUR DIOXIDE;CALCIUM HYDROXIDES;PILOT PLANTS;CALCIUM SULFATES

01912 INDUSTRIAL SO_2 SCRUBBER. Anon. Steam Heat. Eng.; 42: No. 495, 30-3(Feb 1973).
Scrubber intended to solve problem of S emission from plants burning heavy fuel oils. SULFUR DIOXIDE;REMOVAL;SCRUBBING;FLUE GAS; DESULFURIZATION;AIR POLLUTION;LIMESTONE

01913 (PB--221 405/4) CHEMICAL DESULFURIZATION OF COAL: REPORT OF BENCH-SCALE DEVELOPMENTS. VOLUME 1. FINAL REPORT. SEE ALSO VOLUME 2, PB--221 406. Hamersma, J.W.; Koutsoukos, E.P.; Kraft, M.I.; Meyers, R.A.; Ogle, G.J. (TRW Systems Group, Redondo Beach, CA). Feb 1973. Contract EHSD--71-7. 184p.p. (EPA-R2--73-173A). NTIS $6.00, $1.45 (MF).
Meyer process for oxidation of pyrite S by ferric compounds to soluble form. COAL; DESULFURIZATION;PYRITES;LEACHING;COST;AIR POLLUTION;CONTROL;MEYERS PROCESS;OXIDATION; REMOVAL;CLEANING

01914 DESULFURIZATION OF FUEL OILS. Caspers, J.; Rhoe, A. Erdoel Kohle (Hamburg); 26: No. 2, 65-70(Feb 1973). (In German).
From Oesterreichische Gesellschaft fuer Erdoelwissenchaften; Nuernberg, W. Ger. (4 Oct 1972).
Costs. FUEL OILS;DESULFURIZATION;REMOVAL; SULFUR;COST

01915 (PB--221405) CHEMICAL DESULFURIZATION OF COAL: REPORT OF BENCH-SCALE DEVELOPMENTS. VOLUME 1. Hamersma, J.W.; Koutsoukos, E.P.; Kraft, M.L.; Meyers, R.A.; Ogle, G.J.; Van Nice, L.J. Feb 1973. Contract EHSD 71-7. 181p. (EPA-R2--73-173a). NTIS.
Use of aqueous ferric salt solutions. COAL; DESULFURIZATION;REMOVAL;PYRITES;AQUEOUS SOLUTIONS;IRON COMPOUNDS

01916 (PB--221405-4) CHEMICAL DESULFURIZATION OF COAL: REPORT OF BENCH-SCALE DEVELOPMENTS. VOLUME 1. FINAL REPORT. Hamersma, J.W.; Koutsoukos, E.P.; Kraft, M.L.; Meyers, R.A.; Ogle, G.J. (TRW Systems Group, Redondo Beach, Calif. (USA)). Feb 1973. Contract EHSD-71-7. 184p. NTIS $6.00.
Meyer's process; 50 to 130°C; 1 to 10 atm; and coal sizes of 1/4 in. to 100 mesh. MEDIUM PRESSURE;SULFUR;COAL;DESULFURIZATION;REMOVAL; MEYERS PROCESS;SAMPLE PREPARATION;CHEMICAL REACTIONS;IRON CHLORIDES;IRON SULFATES;COST;AIR POLLUTION;STANDARDS;PYRITES;ORGANIC COMPOUNDS; DESIGN;CONTROL;MEDIUM TEMPERATURE;HIGH TEMPERATURE

01917 (PB--221406) CHEMICAL DESULFURIZATION OF COAL: REPORT OF BENCH-SCALE DEVELOPMENTS. VOLUME 2. Hamersma, J.W.; Koutsoukos, E.P.; Kraft, M.L.; Meyers, R.A.; Ogle, G.J.; Van Nice, L.J. Feb 1973. EHSD 71-7. 84p. (EPA-R2--73-173b). NTIS.
Using aqueous feric salt solutions. COAL; DESULFURIZATION;REMOVAL;PYRITES;AQUEOUS SOLUTIONS;IRON COMPOUNDS

01918 REMOVING SO_2 FROM STACK GASES. Slack, A.V. (TVA, Muscle Shoals, AL). Environ. Sci. Technol.; 7: No. 2, 111-9(Feb 1973).
Discusses the various sodium-based methods, ammonia processes, alkali absorbents, and lime-limestone scrubbing processes for SO_2 removal. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; CHEMISORPTION;SODIUM COMPOUNDS;AMMONIA;SODIUM HYDROXIDES;CALCIUM OXIDES;LIMESTONE;AMMONIUM COMPOUNDS

01919 DEVELOPMENTS IN CLAUS CATALYSTS. Pearson, M.J. (Kaiser Aluminium and Chem. Corp., Pleasanton, CA). Hydrocarbon Proc.; 52: No. 2, 81-5(Feb 1973).
Catalysts for desulfurization of stack gases. FLUE GAS;DESULFURIZATION;REMOVAL; HYDROGEN SULFIDES;ORGANIC SULFUR COMPOUNDS; SULFUR DIOXIDE;CLAUS PROCESS;CATALYSTS; ALUMINIUM OXIDES;BAUXITE;SULFATES;POISONING

01920 SULFUR DIOXIDE REMOVAL: PART 1. IDEAL EXTRACTION ROUTE ELUSIVE. Anon. Can. Petrol.; 14: No. 2, 36-9(Feb 1973).
SULFUR DIOXIDE;REMOVAL;COST;FOSSIL FUELS;AIR POLLUTION;SPECIFICATIONS;CLAUS PROCESS; DESULFURIZATION;LIMESTONE;EQUIPMENT

01921 IFP DEVELOPS ITS FLUE-GAS DESULPHURIZATION METHOD. Anon. Petrol. Petrochem.; 13: No. 2, 47-8(Feb 1973).
Aqueous ammonium sulfite solution is absorbent. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR OXIDES;IFP PROCESS;CHEMISORPTION;AQUEOUS SOLUTIONS;AMMONIUM COMPOUNDS;SULFITES

01922 SOLIDS FROM WET LIMESTONE SCRUBBING OF POWER PLANT STACK GASES. McClellan, G.H.; Mills, M.E. J. Air Pollut. Contr. Ass.; 23: No. 2, 122-7(Feb 1973).
SULFUR OXIDES;REMOVAL;FLUE GAS; DESULFURIZATION;PILOT PLANTS;SUSPENSIONS; AQUEOUS SOLUTIONS;SULFUR;RECOVERY

01923 ON TEC/IFP SULFUR OXIDE REMOVAL FROM STACK GAS PROCESS. Nobue, M.; Ishizuka, T. Nenryo Oyobi Nensho (Fuel and Combustion); 40: No. 2, 116-22(Feb 1973). (In Japanese).
Tokyo Engineering Co./Institut Francais du Petrol method for removing S oxides consists of cooling waste gas and absorbing S oxides with ammonium sulfate fllowed by recovery of S from ammonium sulfate solution; use of Claus process. SULFUR OXIDES;REMOVAL;FLUE GAS; DESULFURIZATION;AMMONIUM COMPOUNDS;SULFATES; SULFUR;RECOVERY;CLAUS PROCESS

01924 REMOVING SULPHUR DIOXIDE FROM STACK GASES. Slack, A.V. Environ. Sci. Technol.; 7: No. 2, 110-19(Feb 1973).
Brief evaluation of the technology to date (1973) especially in USA and Japan. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE

01925 (PB--221 406/2) CHEMICAL DESULFURIZATION OF COAL: REPORT OF BENCH-SCALE DEVELOPMENTS. VOLUME 2. FINAL REPORT. SEE ALSO VOLUME 1, PB--221 405. Hamersma, J.W.; Koutsoukos, E.P.; Kraft, M.I.; Meyers, R.A.; Ogle, G.J. (TRW Systems Group, Redondo Beach, CA). Feb 1973. EHSD--71-7. 86p.p. (EPA-R2--73-173B). NTIS $4.85, $1.45 (MF).
Computer programs for analysis of leach processes; tables. COAL;DESULFURIZATION; COMPUTER CODES;PYRITES;TABLES;AIR POLLUTION; CONTROL;REMOVAL

01926 (PB--221406-2) CHEMICAL DESULFURIZATION OF COAL: REPORT OF BENCH-SCALE DEVELOPMENTS. VOLUME 2. FINAL REPORT. Hamersma, J.W.; Koutsoukos, E.P.; Kraft, M.L.; Meyers, R.A.; Ogle, G.J. (TRW Systems Group, Redondo Beach, Calif. (USA)). Feb 1973. Contract EHSD-71-1. 86p. NTIS $4.85.
Meyers process. COAL;DESULFURIZATION; CHEMICAL REACTIONS;SAMPLE PREPARATION; PROGRAMMING;PYRITES;IRON SULFATES;IRON CHLORIDES;AIR POLLUTION;CONTROL;MEYERS PROCESS; REMOVAL

01927 DESULFURIZATION OF GAS CONTAINING HYDROGEN SULFIDE. Sawada, S.; Abe, K. (to Nippon Soda Co., Ltd., Tokyo (Japan)). Japanese Patent 48-3751. 1 Feb 1973. Filed date 7 Oct 1970. 2p. (In Japanese).
Alkali solution is used for scrubbing. GASEOUS WASTES;DESULFURIZATION;REMOVAL;HYDROGEN SULFIDES;SCRUBBING;BASES;SOLUTIONS;CARBON DIOXIDE

01928 HARD COAL MINING IN THE USA AND ITS FUTURE PROSPECTS. Reichl, E.H. Glueckauf; 109: No. 3, 165-78(1 Feb 1973). (In German).
Gasification, liquefaction, and flue gas desulfurization offer solutions to SO_2 emission problems when coal is used as energy source. COAL GASIFICATION;LURGI PROCESS;COAL LIQUEFACTION;FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR DIOXIDE;SCRUBBING;CALCIUM OXIDES; LIMESTONE;MAGNESIUM OXIDES;CATALYSTS;COBALT; MOLYBDENUM

01929 METHOD OF REMOVING SULPHUR DIOXIDE AND NITROGEN DIOXIDE FROM GASES. Bartholomew, R.F.; Garfinkel, H.M. (to Corning Glass Works, Corning, NY). US Patent 3,715,187. 6 Feb 1973. Filed date 14 Apr 1971. 4p.
By passing the gases through an equinolar molten bath of sodium hydroxide and potassium hydroxide. GASES;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;SODIUM HYDROXIDES;POTASSIUM HYDROXIDES; PURIFICATION;NITROGEN OXIDES

01930 APPARATUS FOR PURIFYING GASES. Aoi, K. US Patent 3,715,867. 13 Feb 1973. Filed date 30 Nov 1970. 5p.
Removal of SO_2 and hydrocarbon impurities by adiabatic expansion. FLUE GAS;DESULFURIZATION; REMOVAL;SULFUR DIOXIDE;PURIFICATION; HYDROCARBONS;ADIABATIC PROCESSES

01931 PROCESS AND APPARATUS FOR BURNING SULFUR-CONTAINING FUELS. Robison, E.B.; Ehrlich, S.; Bishop, J.W. (to Dept. of Interior, Washington, DC). US Patent 3,717,700. 20 Feb 1973. Filed date 25 Aug 1970. 9p.
Use of calcined limestone and dolomite to remove SO_2 from flue gases. COAL;COMBUSTION; FLUIDIZED BED;FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR DIOXIDE;CHEMISORPTION;LIMESTONE;DOLOMITE; REGENERATION

01932 PROCESS AND APPARATUS FOR BURNING SULFUR-CONTAINING FUELS. Robison, E.B.; Ehrlich, S.; Bishop, J.W. (to Department of Interior, Washington, DC). US Patent 3,717,700. 20 Feb 1973. 9p.
Regeneration of sulfur oxide acceptors. AIR POLLUTION;CONTROL;SULFUR DIOXIDE;FLUIDIZED BED; REMOVAL;FUELS;COMBUSTION;COAL

01933 PROCESS FOR REMOVING SULFUR OXIDES FROM SULFUR OXIDE CONTAINING EXHAUST GAS. Gappa, G.; Knoblauch, K.; Maier, F.; Schwarte, J.; Steiner, P. (to Bergwerksverband GmbH, Essen (West Germany)). US Patent 3,717,976. 27 Feb 1973. Filed date 22 Oct 1971. 4p.
Adsorption of granular carbon-containing material. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR OXIDES;ADSORPTION;ACTIVATED CARBON

01934 SULFUR DIOXIDE REMOVAL: PART 2. PLETHORA OF PROCESS OPTIONS OPEN TO ELECTRICAL PRODUCERS. Can. Petrol.; 14: No. 3, 38-41(Mar 1973).
Variety of processes for removal of SO_2 from flue gas. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR DIOXIDE;SCRUBBING;CALCIUM OXIDES; LIMESTONE;WATER;MANGANESE COMPOUNDS;ALUMINIUM SULFATES;SULFITES;ZINC OXIDES;MANGANESE OXIDES; MAGNESIUM OXIDES;CITRIC ACID

01935 SYSTEM OF SO_2 REMOVAL FROM FLUE GASES. Yoshida, K.; Saeki, S.; Sekido, T.; Minami, Y.; Hishinuma, T. Hitachi Hyoron; 55: No. 3, 72-83(Mar 1973). (In Japanese).
Five desulfurization methods using different absorbents and adsorbents are described. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; ADSORPTION;CHEMISORPTION;ACTIVATED CARBON; EFFICIENCY

01936 (PB--224 119/8) ASSESSMENT OF SO_2 CONTROL ALTERNATIVES AND IMPLEMENTATION PATTERNS FOR THE ELECTRIC UTILITY INDUSTRY. SEE ALSO PB--207-08. (Hittman Associates, Inc., Columbia, MD). Mar 1973. Contract OST--40. 145p.p. (HIT--550). NTIS $4.50,

$1.45 (MF).
SULFUR DIOXIDE;AIR POLLUTION;ELECTRIC POWER; DESULFURIZATION;FUEL OILS;SOLVENT EXTRACTION; ECONOMICS;FLUE GAS;REMOVAL;COAL;CONTROL;SOLVENT-REFINED COAL;COMPUTERS;FORECASTING

01937 (PB--224119-8-GA) ASSESSMENT OF SO_2 CONTROL ALTERNATIVES AND IMPLEMENTATION PATTERNS FOR THE ELECTRIC UTILITY INDUSTRY. (Hittman Associates, Inc., Columbia, Md. (USA)). Mar 1973. Contract OST-40. 145p. (HIT--550). NTIS $4.50.
ELECTRIC POWER;POWER PLANTS;SULFUR OXIDES; EMISSION;CONTROL;REGULATIONS;THERMAL EFFLUENTS; REGIONAL ANALYSIS;NUCLEAR ENERGY;ENERGY CONVERSION;ECONOMICS;DESULFURIZATION;FOSSIL FUELS;AIR POLLUTION;COMPUTER CODES;COAL;STACK DISPOSAL;GEOTHERMAL ENERGY;HYDROELECTRIC POWER PLANTS

01938 COUNTERMEASURE FOR PREVENTION OF ENVIRONMENTAL CONTAMINATION AT A THERMAL POWER PLANT. Hokkaido Electric Power Co., Inc., (Japan), Thermal Power Dept. Kogai Boshi Netsukanri Hokkaido (Hokkaido Assoc. Energy Pollut. Contr.)/ 26: No. 85, 2-4(Mar 1973). (In Japanese).
Methods for removal of SO_2 from flue gas. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; SODIUM COMPOUNDS;SULFITES;CALCIUM OXIDES; MANGANESE OXIDES;SCRUBBING

01939 CRITICAL EVALUATION OF PROCESSES FOR THE REMOVAL OF SO_2 FROM POWER PLANT STACK GAS. Rochelle, G.T. Air Pollution Control Assoc., Prepr. Pittsburgh, PA; Air Pollut. Control Assoc. (Mar 1973). 29p.
From Air Pollut. Control Assoc., Annual Meeting, 66th; Pittsburgh, PA (24 Jun-28 Jun 1973).
Lime slurry scrubbing and Wellman--Lord process are almost ready for commercial application; other processes have problems or are not well enough developed. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; SCRUBBING;SLURRIES;CALCIUM OXIDES;WELLMAN-LORD PROCESS

01940 MOLTEN CARBONATE PROCESS FOR SO_2 REMOVAL FROM STACK GASES: PROCESS DESCRIPTION, ECONOMICS, AND PILOT PLANT DESIGN. Oldenkamp, R.D.; Botts, W.V. (North American Rockwell Corp., Atomics International Div., Canoga Park, CA). Air Pollution Control Association Journal; 23: No. 3, 190-3(Mar 1973).
SULFUR DIOXIDE;REMOVAL;FLUE GAS;STACK DISPOSAL;ECONOMICS;COAL;CARBONATES; DESULFURIZATION;FOSSIL-FUEL POWER PLANTS;MOLTEN SALTS

01941 PURGING AND WASHING COAL NAPHTHA TO REMOVE HYDROGEN SULFIDE AND BASIC NITROGEN. Karchmer, J.H.; Pennington, R.E. (to Esso Research and Engineering Co.). US Patent 3,719,587. 6 Mar 1973.
Hydrogen sulfide removed by purging with inert gas. HYDROGEN SULFIDES;REMOVAL; DESULFURIZATION;SYNTHETIC FUELS;PRODUCTION

01942 PROCESS FOR THE ENTRAPMENT AND RECOVERY OF SULFUR DIOXIDE GAS. Wilson, H.W. (to Golden Cycle Corp.). US Patent 3,720,754. 13 Mar 1973. Filed date 18 Dec 1970. 4p.
Uses a bed of mixed metallic oxides and silicates. FLUE GAS;DESULFURIZATION;REMOVAL; SULFUR OXIDES;METALS;OXIDES;SILICATES

01943 DRY CYCLIC PROCESS UTILIZING A MANGANOUS OXIDE ABSORBENT FOR REMOVAL OF DILUTE SULFUR VALUES FROM GAS STREAMS. Spedden, H.R.; Richards, K.J.; Schlitt, W.J., III. (to Kennecott Copper Corp., NY). US Patent 3,723,598. 27 Mar 1973. Filed date 5 Nov 1970. 6p.
FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR OXIDES;CHEMISORPTION;MANGANESE OXIDES; REGENERATION

01944 (NP--20096) STATUS OF DEVELOPMENT OF PROCESS FOR ABATEMENT OF SO_2 EMISSION BY STACK GAS TREATMENT. Rosenberg, H.S.; Genco, J.M.; Engdahl, R.B.; Jenkins, D.M.; Oxley, J.H. (Battelle Columbus Labs., Ohio (USA)). 30 Mar 1973. 68p.
Requirements for commercially available status; potential control processes; demonstration plants; current reliability; forecasting future reliability; data sheets on demonstration plants. SULFUR DIOXIDE;REMOVAL; GASEOUS WASTES;DESULFURIZATION;LIMESTONE; CALCIUM OXIDES;SCRUBBING;MAGNESIUM OXIDES; OXIDATION;CATALYSIS;MANGANESE OXIDES;ACTIVATED CARBON;CHEMISORPTION;AIR POLLUTION

01945 PANEL DISCUSSION ON PLANNING, DESIGNING, AND UTILIZING THE STACK GAS DESULFURIZATION SYSTEM. Anon. (Fuel Society of Japan, Osaka Branch and Japan Boiler Assoc., Osaka). Nenryo Oyobi Nensho (Fuel and Combustion); 40: No. 4, 366-94(Apr 1973). (In Japanese).
FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;PURIFICATION;NITROGEN OXIDES;DUSTS

01946 NEW FLUE GAS DESULPHURIZING PROCESS BY SPRAY DRYING METHOD USING NAOH AEROSOLS AS ABSORBING CHEMICAL. Isahaya, F. Staub-Reinhalt. Luft; 33: No. 4, 189-92(Apr 1973).
FLUE GAS;DESULFURIZATION;EQUIPMENT;SODIUM HYDROXIDES;SODIUM CARBONATES;AEROSOLS;SULFUR DIOXIDE;CARBON DIOXIDE;REMOVAL;PURIFICATION; DUSTS;ELECTROSTATIC PRECIPITATORS

01947 DESULFURIZATION OF WASTE GASES AND FUELS. Seidl, W. Brennst.-Waerme-Kraft; 25: No. 4, 155-60(Apr 1973). (In German).
Literature survey including legislative measures, cost calculations, and processes. DESULFURIZATION;GASEOUS WASTES;FUEL GAS; BIBLIOGRAPHIES;LEGAL ASPECTS;SULFUR;REMOVAL; COST;COAL;COAL LIQUEFACTION;LUBRICANTS;SULFUR OXIDES;AIR POLLUTION

01948 CLEANAIR PROCESS. Hydrocarbon Proc;; 52: No. 4, 112(Apr 1973).
Recovery of S from Claus plant tail gas. CLEANAIR PROCESS;GASEOUS WASTES;DESULFURIZATION; SULFUR;PRODUCTION;RECOVERY;AIR POLLUTION

01949 BEAVON PROCESS. Hydrocarbon Proc.; 52: No. 4, 111(Apr 1973).
Purification of S plant tail gas to meet air pollution standards. AIR POLLUTION;GASES; DESULFURIZATION;SULFUR DIOXIDE;CARBON OXIDES; CARBON SULFIDES;BEAVON PROCESS;REMOVAL

01950 STRETFORD PROCESS. Hydrocarbon Proc.; 52: No. 4, 109(Apr 1973).
Sweetening of natural and industrial gases bycomplete removal of H sulfide and partial removal of organic S compounds. NATURAL GAS; FUEL GAS;DESULFURIZATION;STRETFORD PROCESS; HYDROGEN SULFIDES;ORGANIC SULFUR COMPOUNDS; REMOVAL;SULFUR;PRODUCTION;ECONOMICS

01951 TAKAHAX PROCESS. Hydrocarbon Proc.; 52: No. 4, 110(Apr 1973).
Removal of up to 99.9% of H sulfide from gas streams particularly those with low initial H sulfide concentration and/or high C dioxide/H sulfide ratios. HYDROGEN SULFIDES;REMOVAL; TAKAHAX PROCESS;GASES;DESULFURIZATION;SULFUR; PRODUCTION

01952 GIAMMARCO VETROCOKE--SULFUR PROCESS. Hydrocarbon Proc.; 52: No. 4, 108(Apr 1973).
Continuous removal of H sulfide from natural gas or synthesis gases by scrubbing with

solution of alkali arsenate or arsenite. NATURAL GAS;SYNTHESIS GAS;DESULFURIZATION; HYDROGEN SULFIDES;SCRUBBING;REMOVAL;GIAMMARCO VETROCOKE SULFUR PROCESS;ECONOMICS

01953 MOLECULAR SIEVE PROCESS. Hydrocarbon Proc.; 52: No. 4, 97(Apr 1973).
Dehydration and removal of C dioxide and S compounds from natural gas. NATURAL GAS; DESULFURIZATION;PURIFICATION;SULFUR COMPOUNDS; CARBON DIOXIDE;WATER;REMOVAL;ECONOMICS; MOLECULAR SIEVE PROCESS

01954 FLUOR SOLVENT PROCESS. Hydrocarbon Proc.; 52: No. 4, 95(Apr 1973).
Removal of high concentrations of H sulfide and C dioxide from natural or synthetic gas streams. FLUOR SOLVENT PROCESS;HYDROGEN SULFIDES;CARBON DIOXIDE;REMOVAL;GASES; DESULFURIZATION;PURIFICATION

01955 FLUOR ECONAMINE PROCESS. Hydrocarbon Proc.; 52: No. 4, 94(Apr 1973).
Removal of acidic impurities from gas streams using aqueous solution of Diglycolamin. GASES;DESULFURIZATION;FLUOR ECONAMINE PROCESS; HYDROGEN SULFIDES;CARBON DIOXIDE;REMOVAL; PURIFICATION;AMINES;ALCOHOLS

01956 CATACARB CO_2 REMOVAL PROCESS. Hydrocarbon Proc.; 52: No. 4, 93(Apr 1973).
Gas purification by removal of acid gases. CARBON DIOXIDE;HYDROGEN SULFIDES;REMOVAL; DESULFURIZATION;PURIFICATION;GASES;ECONOMICS; CATACARB PROCESS

01957 BENFIELD PROCESS. Hydrocarbon Proc.; 52: No. 4, 92(Apr 1973).
Removal of C dioxide, H sulfide, and COS from sour natural gas and raw gases produced during manufacture of substitute natural gas by partial oxidation of coal or oil or by naphtha reforming. CARBON DIOXIDE;HYDROGEN SULFIDES; CARBON OXIDES;CARBON SULFIDES;NATURAL GAS; REMOVAL;DESULFURIZATION;PURIFICATION;SYNTHESIS GAS;COAL GAS;ECONOMICS;BENFIELD PROCESS

01958 ALKAZID PROCESS. Hydrocarbon Proc.; 52: No. 4, 91(Apr 1973).
For selective absorption of H sulfide and for the simultaneous removal of H sulfide and C dioxide at atmospheric or higher pressures. HYDROGEN SULFIDES;CARBON DIOXIDE;REMOVAL; DESULFURIZATION;PURIFICATION;NATURAL GAS; SYNTHESIS GAS;FLUE GAS;FUEL GAS

01959 ADIP PROCESS. Hydrocarbon Proc.; 52: No. 4, 90(Apr 1973).
For the substantial removal (to a few ppM) of hydrogen sulfide and the partial removal of incidental COS, C dioxide, and mercaptans. ADIP PROCESS;DESULFURIZATION;HYDROGEN SULFIDES; CARBON SULFIDES;CARBON OXIDES;CARBON DIOXIDE; THIOLS;REMOVAL;FUEL GAS;SYNTHESIS GAS;ALCOHOLS; AMINES;ECONOMICS

01960 COMBUSTION SMOKE CONTROL TECHNOLOGY. Fukuta, M. Seikatsu Eisei (J. Urban Living Health Assoc.); 17: No. 4, 120-32(Apr 1973). (In Japanese).
Comparison of wet and dry flue gas desulfurization systems. FLUE GAS; DESULFURIZATION;REMOVAL;SULFUR DIOXIDE; ABSORPTION;CALCIUM CARBONATES;CALCIUM OXIDES; LIMESTONE;SODIUM COMPOUNDS;ALUMINATES;MANGANESE HYDROXIDES;ACTIVATED CARBON;COST;COMPARATIVE EVALUATIONS

01961 MATHEMATICAL MODELLING OF THE LIMESTONE--SULFUR DIOXIDE REACTION IN A FLUIDIZED-BED COMBUSTOR. Bethell, F.V.; Gill, D.W.; Morgan, B.B. (British Coal Utilization Research Association, Stoke Orchard, Eng.). Fuel; 52: No. 2, 121-127(Apr 1973).
COMBUSTION;MATHEMATICAL MODELS;CHEMICAL REACTIONS;FLUIDIZED BED;SULFUR DIOXIDE;DOLOMITE; LIMESTONE;COAL;INCINERATORS;ECONOMICS;PLANNING; MIXTURES

01962 SULFINOL PROCESS. Hydrocarbon Proc.; 52: No. 4, 102(Apr 1973).
Removal of acidic gas constituents such as H sulfide, C dioxide, and mercaptans from neutral, refinery, and synthesis gases. SULFINOL PROCESS;ORGANIC SOLVENTS;HYDROGEN SULFIDES;CARBON DIOXIDE;THIOLS;REMOVAL;CARBON OXIDES;CARBON SULFIDES;DESULFURIZATION; PURIFICATION;NATURAL GAS;SYNTHESIS GAS; ECONOMICS;FUEL GAS

01963 SNPA-DEA PROCESS. Hydrocarbon Proc.; 52: No. 4, 101(Apr 1973).
Removal of H sulfide and C dioxide from raw gas streams at operating pressures of 500 psig or higher. SNPA-DEA PROCESS;NATURAL GAS; DESULFURIZATION;PURIFICATION;HYDROGEN SULFIDES; CARBON DIOXIDE;REMOVAL;MEDIUM PRESSURE

01964 SELEXOL PROCESS. Hydrocarbon Proc.; 52: No. 4, 100(Apr 1973).
Gas purification and removal of H sulfide, C dioxide, COS, mercaptans, etc., from gas streams by physical absorption. SELEXOL PROCESS; COAL GAS;DESULFURIZATION;PURIFICATION;HYDROGEN SULFIDES;CARBON DIOXIDE;CARBON OXIDES;CARBON SULFIDES;REMOVAL;CHEMISORPTION;ETHERS

01965 RECTISOL PROCESS. Hydrocarbon Proc.; 52: No. 4, 99(Apr 1973).
Purification of crude gas produced by coal gasification. RECTISOL PROCESS;CARBON DIOXIDE; HYDROGEN SULFIDES;CARBON OXIDES;CARBON SULFIDES; COAL GAS;DESULFURIZATION;PURIFICATION;REMOVAL; METHANOL;ORGANIC SOLVENTS

01966 PURISOL PROCESS. Hydrocarbon Proc.; 52: No. 4, 98(Apr 1973).
Removal of acid gases from syngas and natural gas streams using physical absorption in N-methylpyrrolidone. NATURAL GAS;PURISOL PROCESS;HIGH BTU GAS;DESULFURIZATION;SULFUR COMPOUNDS;REMOVAL;HYDROGEN SULFIDES; PYRROLIDONES;CHEMISORPTION;EQUIPMENT

01967 SYNTHETIC FUEL GAS PURIFICATION BY THE SELEXOL PROCESS. Sweny, J.W. Amer. Chem. Soc., Div. Fuel Chem., Prepr.; 18: No. 2, 142-56(8 Apr 1973).
Selective removal of H_2S and COS. COAL GASIFICATION;PRODUCTION;SYNTHETIC FUELS;FUEL GAS;DESULFURIZATION;SELEXOL PROCESS;REMOVAL; HYDROGEN SULFIDES;ORGANIC SULFUR COMPOUNDS

01968 REMOVAL OF H_2S ON OXIDIZED IRON. Kertamus, N.J. (Babcock and Wilcox Res. Cent., Lynchburg, VA). Amer. Chem. Soc., Div. Fuel Chem., Prepr.; 18: No. 2, 131-40(8 Apr 1973).
Removal from fuel gas produced by gasification of coal. COAL GASIFICATION; PRODUCTION;FUEL GAS;DESULFURIZATION;REMOVAL; HYDROGEN SULFIDES;IRON OXIDES;IRON SULFIDES

01969 DESULFURIZATION EQUIPMENT FOR EXHAUST GAS. Nagai, H. (to Tokyo Shibaura Electric Co., Ltd., Kawasaki (Japan)). Japanese Patent 48-13102. 9 Apr 1973. Filed date 25 Feb 1967. 2p. (In Japanese).
Design of equipment used to collect SO_2 as H_2SO_4. FLUE GAS;DESULFURIZATION;REMOVAL;SULFUR DIOXIDE;SULFURIC ACID

01970 PRELIMINARY COMMERCIAL SCALE PROCESS ENGINEERING AND POLLUTION CONTROL ASSESSMENT OF THE MEYERS PROCESS FOR REMOVAL OF PYRITIC SULFUR FROM COAL. Lorenzi, L., Jr.; Van Nice, L.J.; Meyers, R.A. (Environ. Prot. Agency, Research Triangle Park, NC). Ironmaking Proc.