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- Purification of lignite coke gas by the Girbotol process without pressure (Absorption of CO<sub>2</sub> and H<sub>2</sub>S by NH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>OH, NH(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>2</sub>, N(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>3</sub>, and an alkaline solution of sulfosolvan B (C<sub>6</sub>H<sub>4</sub>O<sub>2</sub>NK) was studied in especially designed apparatus), 1257
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- Removal of hydrogen sulfide from gas mixtures (Crude hydrocarbon gases passed through chambers with addition of air and steam, and heating indirectly with ceramic bodies to produce little or no H<sub>2</sub>S), 1176
- Removal of hydrogen sulfide from gas (Thylox process), 433
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- Removal of hydrogen sulfide from gases (Absorption-desorption process), 1267
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- Removal of hydrogen sulfide from distillation gases (Washing with acid-free NH<sub>3</sub> water), 646
- Removal of hydrogen sulfide and ammonia from gases (By washing with a suspension of Fe hydroxide followed by washing with a solution of Fe thionate in the presence of part of the NH<sub>3</sub> previously separated), 340
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- Removal of acidic impurities from fuel gas (Containing benzene; washing with aqueous alkaline solution of phenol, treating with benzene-sorbing oil; fractionation method), 582
- Removal of hydrogen sulfide from industrial gases by purifying mass containing iron hydroxide, 905
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- Removal of sulfur from gases by use of carbon-containing ash from producers (Removal of H<sub>2</sub>S and organic S compounds), 985
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- Removal of carbon dioxide and hydrogen sulfide from gases (Gases are washed with ammoniacal solutions containing salts that react with  $CO_2$  and (or) give sparingly soluble crystalline precipitates, e.g., NaCl and  $FeSO_4$ ; equations  $NH_3 + H_2S = NH_4HS$ ,  $FeSO_4 + NH_4HS = FeS + (NH_4)HSO_4$ ;  $NH_4HSO_4 + NH_3 = (NH_4)_2SO_4$ ), 940
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- Removal of hydrogen sulfide from coke-oven gas, generator gas, pressure gaswork gas, expansion gas, and air (Fe (III) complex of tris (carboxymethyl) amine reacts with H sulfide; H sulfide converted to nonvolatile S compound), 1392
- Removal of sulfur from gases containing hydrogen sulfide, 1048
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- Removal of hydrogen sulfide from natural gas (Review of processes including Fe oxide, ferroc, Ni, Thylox, Seaboard, phenolate, caustic soda, lime, and aqueous amine), 1205
- Removal of hydrogen sulfide and other acid impurities from gases (Use of aqueous solution of alkali metal carbonate and bicarbonate containing substituted or unsubstituted hydroxy- or polyhydroxybenzenes), 1206
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- Removal of hydrogen sulfide from gases (By oxidation to S by scrubbing with  $Fe(OAc)_2$  solution and oxygen), 1032
- Removal of ammonia and hydrogen sulfide from coke oven gas (Two-step washing process; catalytic oxidation gives sulfuric acid), 1528
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Chemical desulfurization of coal: report of bench-scale developments. Volume 1. Final report (Meyer's process; 50 to 130°C; 1 to 10 atm; and coal sizes of 1/4 in. to 100 mesh), 1916 (PB-221405-4)  
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Removal of mineral matter including pyrite from coal. Patent application No. 354 023 (Treatment of coal with aqueous alkali at about 175-300°C followed by acidification with strong acid), 2002

Removal of pyrite from coal by dry separation methods. Report of investigations, prepared in cooperation with

Morgantown Energy Research Center, WV (Reduction of  $SO_2$  emissions from coal-burning power plants by removing pyrites from coal prior to burning; equipment), 1978 (PB--221 627/3)

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