

ABSTRACT
GAS SEPARATION

A burner 4 and furnace 6 are operated to form a gas mixture comprising hydrogen sulphide, sulphur dioxide, carbon dioxide, water vapour and sulphur vapour from a feed gas stream comprising hydrogen sulphide and carbon dioxide. Sulphur vapour but not water vapour is extracted in a condenser 16. All the hydrogen sulphide is oxidised to sulphur dioxide (or all the sulphur dioxide reduced to hydrogen sulphide) in a reactor 22. The resulting gas mixture is dried in drier 30 and compressed in compressor 32. It is then fractionally distilled in distillation column 38. A top fraction essentially free of sulphur compounds is vented while a bottom fraction may be recycled to the furnace 6.

Fig. 1