

ABSTRACT OF THE DISCLOSURE

Gas Separation Apparatus

A discharge gas containing PFC gas including CF_4 and NF_3 , generated from a manufacturing process (10) is adsorbed at an adsorbing device (18) and then desorbed using nitrogen as a purge gas. A desorbed gas with CF_4 and NF_3 concentrated can be obtained in this manner. The desorbed gas is then supplied to a chromatographic separator (20) for chromatographic separation with nitrogen as a carrier gas. In this manner, CF_4 and NF_3 within the PFC gas can be separated. In particular, because the gas is once concentrated at the adsorbing device (18), chromatographic separation of the gas constituents can be efficiently performed. By independently concentrating CF_4 and NF_3 obtained by the chromatographic separation, high purity gas constituents of the PFC gas can be obtained, and reused at the manufacturing process (10).

Fig. 1