

METHOD FOR MEASURING CONCENTRATION OF FLUORINE GAS CONTAINED
IN HALOGEN FLUORIDE-CONTAINING GAS BY ULTRAVIOLET
SPECTROSCOPY

ABSTRACT

An object of the present invention is to provide a high-accuracy measurement method that, in the measurement of the concentration of fluorine gas contained in a halogen fluoride-containing gas using an ultraviolet spectrophotometer, reduces the amount of measurement errors caused by for example fluorine gas generated by photolysis of the halogen fluoride. The present invention is a method for measuring the concentration of fluorine gas, the method comprising irradiating a halogen fluoride-containing gas with ultraviolet light in which the ratio (W_X/W_F) of the maximum value (W_X) of ultraviolet light intensity in the wavelength region of less than 250 nm with respect to the ultraviolet light intensity (W_F) at a wavelength of 285 nm is 1/10 or less, and measuring the absorbance at a wavelength of 285 nm to obtain the concentration of fluorine gas contained in the halogen fluoride-containing gas.

Fig. 1