lower than melting points of alkali metals), even if alkali metal chlorides in the combustion gas adhere to the surfaces of the components, the alkali metal chlorides solidify and their corrosiveness decreases compared to when they are in the form of molten salts. On the other hand, even when the temperature of components of the combustion facility 100 is not very high, since heavy metal chlorides in the combustion gas have relatively low melting points and tend to exist as molten salts, they easily cause corrosion of the components. Therefore, when heavy metal chlorides having relatively low melting points are selectively sulfated among the relatively highly corrosive alkali metal chlorides and heavy metal chlorides contained in the combustion gas to form less corrosive sulfates, it is expected that the corrosion of the components can be effectively suppressed.

[0034] Here, FIG. 3 is a chart showing the vapor pressure curves of typical chlorides of heavy metals (lead, zinc) and alkali metals (sodium, potassium) in a fuel. In the graph of FIG. 3, p_{Pb}, p_{Zn}, p_{Na} and p_K indicate the concentrations (partial pressures) in the combustion apparatus when lead, zinc, sodium and potassium contained in a typical fuel are all volatilized, respectively, and TB_{PbCl2}, TB_{ZnCl2}, TB_{NaCl} and TB_{KCl} indicate the temperatures on the vapor pressure curves for the above-described elements at the above-described concentrations p_{Pb}, p_{Zn}, p_{Na} and p_K, respectively. That is, TB_{PbCl2}, TB_{ZnCl2}, TB_{NaCl}, and TB_{KCl} indicate the condensation points (or boiling points) of chlorides of the elements in the combustion apparatus when a typical fuel is combusted in the combustion apparatus.

[0035] As can be seen from the graph of FIG. 3, when combusting a fuel such as general waste or biomass, the condensation points of heavy metal chlorides (TB_{PbCl2} and TB_{ZnCl2}) in the combustion apparatus are about 400°C or lower, and the condensation points of alkali metal chlorides (TB_{NaCl} and TB_{KCl}) are about 750°C or ~~lower~~ higher. That is, when the content of alkali metals and heavy metals in a fuel (waste, biomass, etc.) is within the general range, in the combustion facility for combusting the fuel, in relation to the vapor pressure of each component, heavy metal chlorides in the combustion gas (chlorides derived from heavy metals in the fuel) vaporize at about 400°C or higher, and alkali metal chlorides in the combustion gas (chlorides derived from alkali metals in the fuel) condense at about 750°C or lower.