

ABSTRACT

The present invention provides a method for performing a decomposition treatment on a VOC and/or a gas-phase inorganic reducing compound in a gas through ozone oxidation, by which further enhancement of efficiency in oxidative decomposition reaction by ozone is achieved, a decomposition treatment can be performed efficiently on a high-flow rate exhaust gas containing substances such as a VOC and a malodorous substance in low concentrations, and the amount of ozone to be used can be reduced in a method for performing oxidative decomposition treatment with ozone on a VOC and the like using a high silica adsorbent. The present invention is a method for performing an oxidative decomposition treatment with ozone on a VOC and/or a gas-phase inorganic reducing compound in a gas, the method including adding/mixing an ozone gas into a gas containing a VOC and the like, and then bringing a resultant mixed gas into contact with a high silica adsorbent being a packed porous body to perform decomposition treatment on the VOC and the like through ozone oxidation, wherein a porous body including the high silica adsorbent as a base material, and a particulate powder of a transition metal-containing oxide having a BET specific surface area of 80 m^2 or more, the particulate powder carried on the base material, is used as a packing material.