

ACIDIC EXHAUST GAS TREATMENT AGENT, ACIDIC EXHAUST GAS TREATMENT METHOD, AND ACIDIC EXHAUST GAS TREATMENT EQUIPMENT

ABSTRACT

Provided are an acidic exhaust gas treatment agent, an acidic exhaust gas treatment method, and acidic exhaust gas treatment equipment that can enhance the efficiency in removing nitric oxide more than before when treating acidic exhaust gas generated from combustion facilities such as thermal power plants and incineration facilities by using layered double hydroxide. In the acidic exhaust gas treatment method of the present invention, an acidic exhaust gas treatment agent comprising a complex of Mg-Al layered double hydroxide with at least one of manganese oxide and a permanganate compound is used, and the method comprises the steps of: (1) bringing the acidic exhaust gas into contact with the acidic exhaust gas treatment agent to adsorb an acidic substance in the acidic exhaust gas; (2) desorbing the acidic substance adsorbed on the acidic exhaust gas treatment agent in step (1) to regenerate the acidic exhaust gas treatment agent; and (3) recovering the acidic substance desorbed from the acidic exhaust gas treatment agent in step (2).

[FIG. 2]