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GAS DETECTION METHOD AND APPARATUS USING GAS REACTIVE PIGMENT

ABSTRACT OF THE DISCLOSURE

This invention provides a method for determining the concentration of a gas to be detected by a gas detector using a gas reactive pigment, wherein the dynamic range of the detectable concentration can be controlled. The method comprising bringing a gas to be detected such as a halogen gas, a hydrogen halide gas or the like into contact with a gas detector placed in a detection area and comprising a gas reactive pigment tetraphenylporphyrin or a derivative thereof represented by the general formula (1) or a metal complex of tetraphenylporphyrin or a derivative thereof represented by the general formula (2); and irradiating said gas detector with a detection beam and measuring a color change in said gas detector to determine the concentration of said gas to be detected, wherein the measurement is carried out in the temperature range from 40 to 80°C of said detection area; and a detection apparatus for carrying out the said method are disclosed.

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