

ABSTRACT OF THE DISCLOSURE

A method for treating waste gases and a device for performing the method, which can treat a large amount of waste gases containing dilute gaseous hydrocarbons for separation of the gaseous hydrocarbons safely, easily, and efficiently, and can reduce the content of gaseous hydrocarbons remaining in the waste gases to be discharged to atmosphere to 100 ppm or less after the treatment.

The method comprises: (1) using as an adsorption device adsorbent layers and adsorption columns 1a and 1b for cooling the adsorbent layer, (2) filling the adsorption columns with activated carbon and Y-type synthetic zeolite over the activated carbon, (3) alternately performing adsorption and desorption, wherein the adsorption-desorption switching time is controlled by automatically operating an adsorption-desorption switching valve (d) according to the instruction of "an anticipated break-through concentration of the adsorbent layer" from a data logger, (4) using water during the desorption operation by pumping the water using a water-sealed vacuum pump 14, and (5) returning the entire amount of purged exhaust gas to a waste gases feed pipe 11 via a gas/liquid separator 16, while (6) treating the liquid from the gas/liquid separator 16 using an industrial waste treating device 17.