

REACTOR FOR TREATING GASEOUS POLLUTANTS AND HEAD ASSEMBLY THEREOF

Abstract

A head assembly, mounted in a combustion reactor for treating a
5 gaseous pollutant. The head assembly comprises an upper cover assembly,
one or more guide pipes, a pilot flame nozzle, and one or more fuel nozzles.
The upper cover assembly is arranged above a thermal reaction area, and
the upper cover assembly comprises a top plate, a middle plate, and a
bottom plate. Each guide pipe is configured to guide an effluent from a
10 semiconductor process, and the guide pipe passes through the top plate, the
middle plate, and the bottom plate to guide the effluent to the thermal
reaction area. The pilot flame nozzle passes through the top plate, a thermal
insulator, and the middle plate and is communicated with the thermal
reaction area through a first opening. Each fuel nozzle passes through the
15 top plate, the thermal insulator, and the middle plate and is communicated
with the thermal reaction area through a second opening.

Fig. 4A