

ABSTRACT

HIGH-PRESSURE SUBSTRATE PROCESSING APPARATUS

The present invention provides a high-pressure substrate processing apparatus comprising: an inner chamber for accommodating a substrate to be processed; an outer chamber that includes a hollow housing and a partition plate arranged to partition the housing into a high-temperature region accommodating the inner chamber and a low-temperature region having a lower temperature than the high-temperature region; an air supply module configured to supply a reaction gas for processing the substrate to the inner chamber at a first pressure higher than atmospheric pressure and supply a protective gas to a space between the outer chamber and the inner chamber at a second pressure set in relation to the first pressure; an air discharge module which is provided with an air discharge pipe communicating with the inner chamber and passing through the low-temperature region and which is configured to discharge a mixed gas containing the reaction gas and by-products formed by processing the substrate; and a collection module which is disposed in the low-temperature region while communicating with the air discharge pipe and which is configured to collect the by-products in the mixed gas.

FIG. 1