

REAGENT DISPENSING APPARATUS AND DELIVERY METHOD

ABSTRACT

This invention relates to a vapor or liquid phase reagent dispensing apparatus that may be used for dispensing vapor or liquid phase reagents such as precursors for deposition of materials in the manufacture of semiconductor materials and devices. This invention reduces the number of container designs required to support different applications. A standard two port container without a tube can be converted to a container capable of being used in applications which require a tube (i.e., bubbler tube for gas delivery or a dip tube for liquid delivery), by inserting a gasket/tube adapter between one of the ports and the corresponding valve in accordance with this invention.

(Fig. 1)