

METHODS FOR IMPROVING SEMICONDUCTOR PROCESSINGABSTRACT OF THE INVENTION

Novel processes for improving uniformity, reliability, and throughput of processes used in semiconductor manufacturing. In one process of the present invention used to reduce moisture contamination, a substrate is placed in a chamber. The chamber is then evacuated. Next, the chamber is refilled with a dry, heated gas to desorb any moisture attached to the surface of the substrate. The chamber is then evacuated to remove the heated gas and any moisture desorbed from the surface of the substrate. The process can be repeated to insure complete removal of all moisture present in the chamber and on the substrate. In another process, used to precisely control gas temperature, gases used in a semiconductor process are heated to reaction temperature prior to injection into a reaction vessel.

Figure 2