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ABSTRACT

APPARATUS AND PROCESS FOR BULK WET ETCH LEAKAGE PROTECTION

When using hot alkaline etchants such as KOH, the wafer front side, where various devices and/or circuits are located, must be isolated from any contact with the etchant. This has been achieved by using two chambers that are separated from each other by the wafer that is to be etched. Etching solution in one chamber is in contact with the wafer's back surface while deionized water in the other chamber contacts the front surface. The relative liquid pressures in the chambers is arranged to be slightly higher in the chamber of the front surface so that leakage of etchant through a pin hole from back surface to front surface does not occur. As a further precaution, a monitor to detect the etchant is located in the DI water so that, if need be, etching can be terminated before irreparable damage is done.

(Fig. 1 is suggested for publication.)



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