

ABSTRACT

System And Method For Determining And Controlling Contamination

A preferred embodiment includes a method for monitoring the performance of a filter positioned in an airstream in a semiconductor processing system. The method includes sampling the airstream at a location upstream of the filter to detect the molecular contaminants present in the airstream; identifying a target species of the contaminants upstream; selecting a non-polluting species of a contaminant having a concentration greater than a concentration of the target species; measuring the non-polluting species in the airstream at a plurality of locations; and determining the performance of the filter with respect to the target species from measurements of the non-polluting species. The plurality of locations includes a location downstream of the filter and at a location within the filter. Further, the method for monitoring includes generating a numerical representation of a chromatogram of the airstream sampled at a location upstream of the filter. The method for monitoring includes the non-polluting species having a molecular weight that is lower than that of the target species. In addition, in the method for monitoring the step of sampling includes collecting refractory compounds, high molecular weight compounds and low molecular weight compounds. The filter comprises absorptive material.

Selected Drawing: Fig. 9A