

Abstract Submitted
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Efficiency technique of in-situ dry cleaning process in etch chamber YUSIN KIM, JUNGHWAN UM, Samsung Electronics Co. — In order to achieve the same process results in one chamber, it is very important to keep the wall condition constant at all times. Therefore the in-situ dry clean process (ISD) is performed after each wafer is processed. End point detection (EPD) technique, which is traditionally used in the process, is applied to vary the ISD time according to the chamber wall conditions. As a result of applying the appropriate EPD algorithm according to the type of ISD gas, the minute change of the chamber is observed with the EPD time of ISD. In addition, plasma simulations were performed to find the ISD condition to minimize the surface damage caused by the plasma generated during ISD. As a result of applying the conditions derived from the simulation and the EPD technique, process defects due to particles falling off the surface are reduced.

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