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Investigation of Bomb Defects: Reducing the Defect from Perhydropolysilazane Layer on Semiconductor

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It is shown that chemical residues in front opening unified pod(FOUP) can bring about the defect called bomb on perhydropolysilazane(TOSZ) surface. To provide the evidence for effects of chemical residues in isolated environment, the defect results according to given time interval between previous step and the process of perhydropolysilazane(TOSZ) coating to form the silicon dioxide layer were shown. Besides, methods of chemical analysis were employed to obtain not only the exact elements caused by defect but also the signal of their unique characters indirectly. Moreover, reducing these bomb defects on TOSZ layer on process of semiconductor could be important to have high yield as well as application to defect free device in next generation