

Development of Ion Implanted Standards

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For analysis of dopants in semiconductors, SIMS has been extensively used for a long time. To quantify the SIMS analysis results, ion implanted standards has been most successfully used. In this presentation, we are going to describe the process of ion implantation of 100 keV Ti⁺ and Cr⁺ ions into Si wafers and the preliminary analysis results of the ion implanted Si wafers. For the analysis, ion dosimetry, SIMS, RBS have been used for homogeneity evaluation and the ion dose determination. For the SIMS analysis, ion implanted standards purchased from C&A were used. All the results will be compared and further analysis plans before certification will be discussed.