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X-Ray Reflectometry Studies of Ti Thin Film on Si (100) BINOD PAUDEL, HEINRICH NAKOTTE, New Mexico State University, JAREK MAJEWSKI, ERIK WATKINS, Los Alamos National Laboratory — X-ray reflectometry was used to determine the dimensions and surface/interface features of a titanium thin film deposited on a silicon (100) wafer. Specular X-ray reflectivity studies provide insight into the depth variation of the density, thereby providing insight into the film thickness, the (interfacial or surface) roughness and the homogeneity of the film. While the data analysis of the experimental reflectivity data of our sample is largely consistent with an 100 nm Ti film on Si(100), there are some features in the data that are indicative of additional surface and/or interface layers, such as oxides. We present our attempts to model such additional features present in the data.

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