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WAFERMAP for Windows

APPLICATION NOTE 6: Simulation of Wafer Rotation

Wafer rotation is used in many types of deposition or thermal treatment equipment. During the development of these tools often the question arises if the final homogeneity will be good enough. WAFERMAP for Windows allows the simulation of wafer rotation based on maps generated using stationary conditions (i.e. without rotation). This can be done using the „Average radial zones“ feature. Measurement sites will be grouped in radial zones. The number of zones depends on the number of sites and will be dynamically adjusted. Data values of all sites within one radial zone will be averaged. In the following an example of this feature is shown.

Example:

Fig. 1 shows the distribution of sheet resistance after RTP implant anneal (200 mm wafer, As implant). Edge exclusion was 5 mm, 121 sites were measured. Fig. 2 shows the sheet resistance map assuming wafer rotation in the RTP chamber.

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Figures:

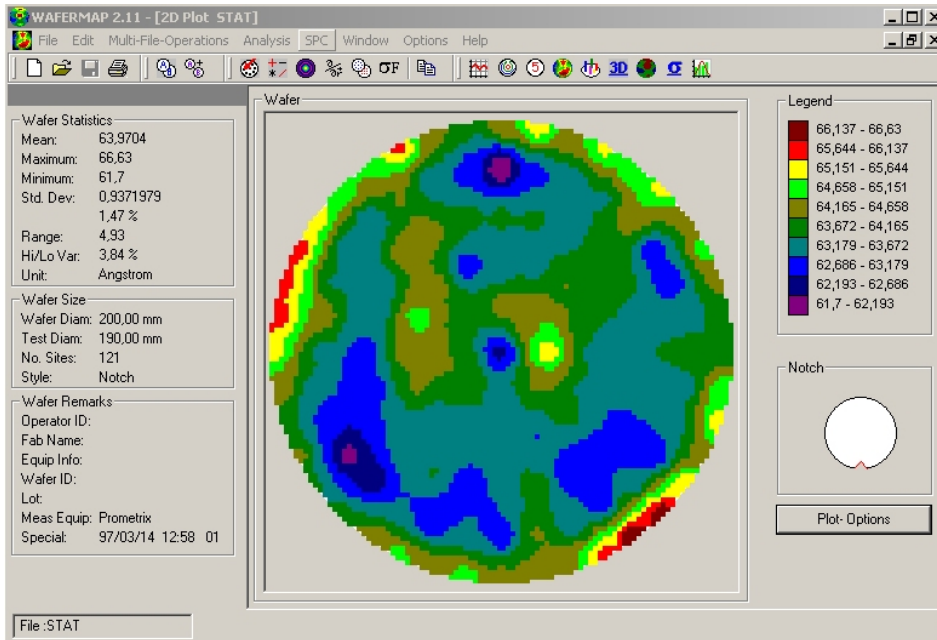


Fig. 1: 2D Sheet resistance map of stationary case

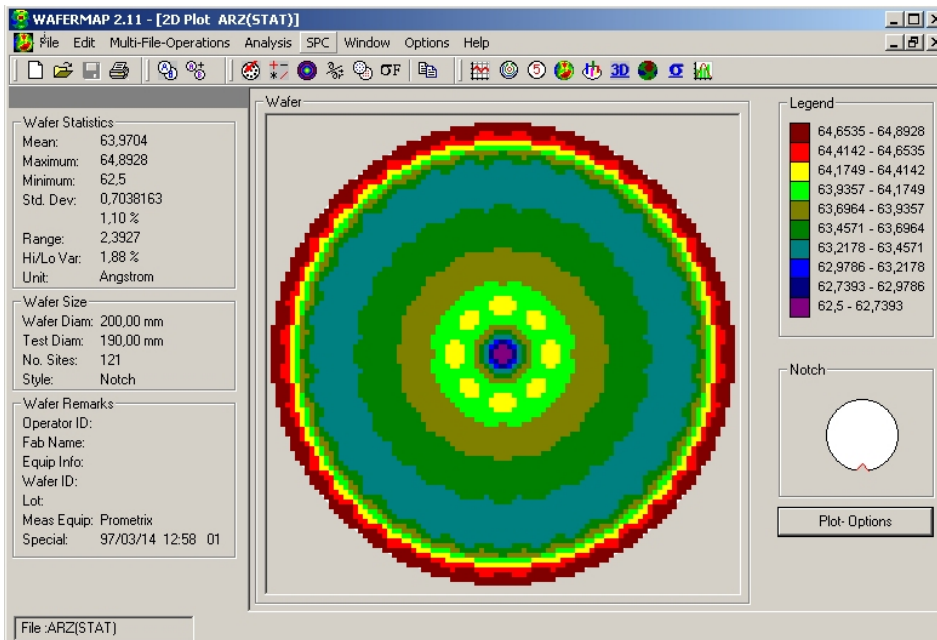


Fig. 2: 2D Sheet resistance map of simulated wafer rotation.