SESSION XI

Process III

Chair: Maria Ristow, Watkins-Johnson

This process session focuses on wafer surface treatment and passivation to improve device performance. Each of the four papers addresses a different aspect of device fabrication. The first paper, from Hughes Research Laboratories, describes the optimization of silicon nitride passivation to improve PHEMT device breakdown voltage.

Next, Sumitomo Electric presents results on the effects of oxygen plasma on silicon implant activation for GaAs FETs. The paper from Motorola discusses the manufacturing concerns of using reactively sputtered aluminum nitride for the protection of GaAs MESFET surfaces.

The final paper, from the Kings College London, describes the optimization of polyimide processing and dry etching used to achieve the quality of dielectric and interlayer connections suitable for MMIC circuit applications.