SIMULATION OF CRITICAL IC-FABRICATION STEPS

Typical annealing steps of highly doped As-regions are investigated. The physical model includes a dynamic relation between electrically active and clustered arsenic as well as field enhanced diffusion and enhancement by charged point defects. A simulation of a coupled As-B diffusion features the advantages of an automatically adapted spatial grid as used in our process simulator. We outline important capabilities of our programs such as adaptive modification of the mesh in space and time, the easy exchange of physical models and the treatment of an arbitrary number and kind of physical quantities.

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