Abstracts

Computer-Aided Analysis and Optimization of Subhalf-Micron-Gate MODFET Structures

T. Shawki and G. Salmer. "Computer-Aided Analysis and Optimization of Subhalf-Micron-Gate MODFET Structures." 1990 MTT-S International Microwave Symposium Digest 90.1 (1990 Vol. I [MWSYM]): 319-322.

Novel optimization techniques for subhalf-micron gate MODFET structures are thoroughly investigated based on accurate 2D hydrodynamic hot-electron modeling. We emphasized some novel device design concepts to be implemented in submicron-MODFET knowledge-based systems. Device design constraints and guidelines to achieve optimum millimetric-wave performance are considered. These cover gate-length miniaturization, optimal gate-recess dimensions and optimized SQW-MODFET geometries.

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