Abstracts

Profile Studies of Ion-Implanted MESFETs (1983 [MCS])

J.M. Golio and R.J. Trew. "Profile Studies of Ion-Implanted MESFETs (1983 [MCS])." 1983 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 83.1 (1983 [MCS]): 22-26.

A study of ion-implanted MESFET performance as a function of the implantation energy and fluency and including the effects of deep-level trap concentrations in the substrate has been conducted. Carrier concentrations as a function of depth are determined through the use of LSS theory and a profiling model. An analytic device model, which computes both DC and RF characteristics, is then employed to predict MESFET performances. The study includes the effects of depth dependent transport properties and has indicated a number of design rules for the fabrication of optimized ion-implanted devices.

❑ Return to main document.