Abstracts

Comparison of quasi-2D and ensemble Monte Carlo simulations for deep submicron HEMTs

C.G. Morton and C.M. Snowden. "Comparison of quasi-2D and ensemble Monte Carlo simulations for deep submicron HEMTs." 1998 MTT-S International Microwave Symposium Digest 98.1 (1998 Vol. I [MWSYM]): 153-156.

In this paper, we present corroborative material indicating the accuracy of our quasi-2D HEMT model when applied to the analysis of deep sub-micron devices. We compare our modelling results with those derived from ensemble Monte Carlo simulations, and demonstrate excellent agreement in the velocity profiles for 0.5, 0.25 and 0.05 micrometre gate-length devices.

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